

Public Policy 713

Causal Inference in Education Policy Research II: Postsecondary

Winter 2022 M/W: 4:00-5:20pm

Weill Hall 1220

Professor Kevin Stange

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Course Objectives

This course introduces and applies various methods for causal inference in research on postsecondary education. The focus is on topics relevant to education policy, including student aid, the returns to postsecondary education, college transfer, funding, admissions, online instruction, and college quality. The course will cover three quasi-experimental techniques extensively (difference-in-differences, regression discontinuity, and instrumental variables) and demonstrate the application of several other methods (machine learning, synthetic controls, decomposition, discrete choice models, mixed methods). We will also gain some exposure to the “professional” aspects of education policy research, including the publication process, refereeing articles, and grant applications.

Prerequisites

The course assumes mastery of regression analysis, including fixed effects and basic panel data methods. The course is structured as the second half of a two-part sequence with Public Policy 712; mastery of the content of that course is also assumed, though successful completion of Public Policy 571 (Econometrics) or a similar course is also sufficient. Facility with a statistical programming language is also assumed.

Course Requirements and Grading

Course grades will be based on three data analysis exercises, the article referee report, and your participation in class discussions, in part via answering the reading questions. There will be no exams or quizzes.

Data Analysis Exercises (3) 45%

There are three required data analysis exercises (problem sets), each worth 15% of your grade. We will use real datasets to replicate and extend the analysis contained in three of the papers we’ll read. You may work singly or with up to two classmates; though you must submit your own version of your writeup and indicate your collaborators. Problem sets are due on February 7, March 7, and April 6. We will “workshop” each assignment about a week before each is due (look for “workshop” in the schedule), where we discuss the paper

to replicate and work through your progress so far. You will be expected to make a serious attempt beforehand and bring your code, output, and questions to class.

Article Referee Report 15%

One assignment will ask you read a draft article carefully and write up a 3-page “Referee Report” as you would do if you were asked to review an article for an academic journal. This is tentatively due April 25th, though I may switch the due date with that of assignment 3. I will provide guidance and examples of this.

Reading Questions 30%

I will post guiding questions about some of the readings to help guide you to the main points of each reading. I will ask you to send answers the night before class via Canvas. This will also be a mechanism through which I will know what aspects are most confusing and we should focus on.

Class Participation 10%

Students are expected to attend class regularly and to come prepared to discuss the readings. Since this is a discussion-based class, the quality of our discussions will depend on your participation! Everyone should get 100% on this.

Research Project Proposal (only required for IES pre-doctoral fellows)

Over the course of the year (encompassing both PubPol 712 and 713), students in the IES pre-doc training program are required to start an independent research project. This project can be the same project as the student is pursuing for other requirements of their program (e.g., the 3rd year paper that is required of students in the Economics PhD program). I will provide students with more details during 1-on-1 meetings.

Readings

The readings for the course will be, almost exclusively, empirical journal articles that apply one of the methods we are studying. You are expected to complete the assigned reading before class. There will typically be one or two articles assigned for each class, though I will also list other readings for your reference. You must read the assigned articles closely in order to understand what is going on. Read actively: circle what is unclear, highlight what you find most interesting, peruse the bibliography for useful sources, read the footnotes and tables especially closely. It may be useful to write a summary of the paper for your own files.

Course Material

All readings are available online or on the CANVAS site. Assignments will be listed under the relevant lecture.

Below is a list of useful references. As needed, I may assign chapters to supplement discussion articles.

Murnane, R., & Willett, J. (2010). *Methods matter: improving causal inference in educational and social science research*. New York, NY: Oxford University Press, USA.

Angrist, J., & Pischke, J. (2009). *Mostly harmless econometrics: An empiricist's companion*. Princeton, NJ: Princeton University Press.

Angrist, J., & Pischke, J. (2015). *Mastering 'Metrics: The Path from Cause to Effect*. Princeton, NJ: Princeton University Press.

Stock and Watson, *Introduction to Econometrics*, Third Edition. (This is the textbook used in PubPol 639, and may be a good resource for students who want a refresher on some of this material.)

Cunningham, Scott. [Casual Inference: The Mixtape](#)

Software

Students are welcome to use whatever programming language they prefer. Most students will choose Stata or R. I will not be formally teaching Stata or R as part of the course, but will instead provide general guidance and reference to helpful materials. I will also be available to answer questions and provide support in office hours. Students are strongly encouraged to purchase and/or otherwise obtain whichever software they plan to use. R is free for download, and Stata is available for students very cheaply. Order through the Stata website. It is possible to access Stata from computer labs on campus. It may also be possible to access Stata via Virtual Sites. However, because we will use statistical software during class throughout the semester, it will be much easier for students to have a copy of the software on a computer they bring to class. Note: I will be able to provide instruction and guidance in Stata. However, my knowledge of R is very limited and my guidance for R users mostly will involve pointing them to other resources for assistance.

Ford School Inclusivity Statement

Members of the Ford School community represent a rich variety of backgrounds and perspectives. We are committed to providing an atmosphere for learning that respects diversity. While working together to build this community we ask all members to:

- share their unique experiences, values and beliefs

- be open to the views of others
- honor the uniqueness of their colleagues
- appreciate the opportunity that we have to learn from each other in this community
- value one another's opinions and communicate in a respectful manner
- keep confidential discussions that the community has of a personal (or professional) nature
- use this opportunity together to discuss ways in which we can create an inclusive environment in Ford classes and across the UM community

Accommodations for Students with Disabilities: If you believe you need an accommodation for a disability, please let your instructor know at your earliest convenience. Some aspects of courses may be modified to facilitate your participation and progress. As soon as you make your instructor aware of your needs, they can work with the Services for Students with Disabilities (SSD) office to help determine appropriate academic accommodations. Any information you provide will be treated as private and confidential.

Student Mental Health and Well-Being Resources: The University of Michigan is committed to advancing the mental health and wellbeing of its students. We acknowledge that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact [Counseling and Psychological Services](#) (CAPS) and/or [University Health Service](#) (UHS). For a listing of other mental health resources available on and off campus, visit: <http://umich.edu/~mhealth/>

Please review additional information and policies regarding academic expectations and resources at the Ford School of Public Policy: <http://fordschool.umich.edu/academics/expectations>

READING LIST

** indicates required careful reading;*

+ indicates required skim

others are optional and for your reference

Note that I am including many non-required readings in the list just so you have them for reference.

I. Introduction & Returns to Education

Wednesday, January 5: Trends in Postsecondary Education

For this class, just try to get a lay of the postsecondary landscape by reading the one article and browsing the figures contained in the references below. We will also discuss the various methods you'll see in the class. Also read the Murnane and Willet chapter if you haven't already seen it.

*Barrow, Brock, Rouse, 2013. "[Postsecondary Education in the United States: Introducing the Issue](#)" *Future of Children* Vol 23(1): Spring 2013. Only read the first chapter (through page 16)

*Murnane, R., & Willett, J. (2010). Chapter 1 in *Methods matter* (if you haven't already) A pdf is posted on Canvas.

Browse the various figures contained in the [Digest of Education Statistics 2019](#), focused on ones related to overall attainment and postsecondary education

Browse various publications by the College Board

- College Board. (2021). [Trends in college pricing and student aid 2021](#).
- College Board. (2019). [Education pays, 2019](#).

International comparisons of education levels in [OECD Education at a Glance, 2021](#). Browse some of the figures comparing attainment across countries.

Bailey, M. & Dynarski, S. (2011). Gains and gaps: changing inequality in U.S. college entry and completion (NBER Working Paper No. 17633). Retrieved from NBER website: <http://www.nber.org/papers/w17633>.

Monday, January 10: Human Capital Model & Intro to Returns

*[For those new to human capital model] Borjas, George (2005). “Human Capital,” Chapter 7 in *Labor Economics* (McGraw Hill), Focus on pages 235-249 (on Canvas).

*Murnane, R., & Willett, J. (2010). Chapter 3 in *Methods matter* (if you haven't already) A pdf is posted on Canvas

*Oreopoulos, Philip and Uros Petronijevic (2013). “[Making College Worth It: A Review of the Returns to Higher Education](#).” *The Future of Children* Volume 23, Number 1, Spring.

Reading questions (do not turn in answers)

1. What are the main factors that influence an individual's education decisions according to the human capital model?
2. What predictions does the human capital model make about who goes to and completes college?
3. What is missing from these models that is potentially important?
4. What does the model imply are the important policy levers?
5. Why might the factors described by the human capital model make it difficult to infer the causal effect of going to college?
6. What is one reason that the raw differences in earnings between college and high school graduates may *overstate* the causal effect of a college degree?
7. What is one reason that the raw differences in earnings between college and high school graduates may *understate* the causal effect of a college degree?

Wednesday, January 12: Returns to College I

*Zimmerman, Seth (2014). “[The Returns to College Admission for Academically Marginal Students](#).” *Journal of Labor Economics* Vol. 32, No. 4 (October), pp. 711-754.

+Ost, Ben, Weixiang Pan, Douglas Webber, 2018. “[The Returns to College Persistence for Marginal Students: Regression Discontinuity Evidence from University Dismissal Policies](#)” *Journal of Labor Economics*

+Hoekstra, M. (2009) “[The Effect of Attending the Flagship State University on Earnings: A Discontinuity-Based Approach](#)” *Review of Economics and Statistics* 91(4): 717–724 [US]

*Pick one Regression Discontinuity chapter

- Cunningham, Scott. [Casual Inference: The Mixtape](#) Chapter 6.
- Murnane & Willett, Chapter 9 (also on Canvas)
<http://ebookcentral.proquest.com.proxy.lib.umich.edu/lib/umichigan/detail.action?docID=578791>
- Angrist & Pischke-Mostly Harmless Econometrics - 2009, Chapter 6

Monday, January 17: MLK Day, No class

Wednesday, January 19: Returns to College II: Heterogeneity

*Justine S. Hastings, Christopher A. Neilson, and Seth D. Zimmerman, 2014. Are Some Degrees Worth More than Others? Evidence from college admission cutoffs in Chile. NBER Working Paper.

+Kirkebøen, Lars, Edwin Leuven, and Magne Mogstad, 2016. "[Field of Study, Earnings, and Self-Selection](#)," *The Quarterly Journal of Economics*, 2016, p. qjw019

+R. J. Andrews & J. Li & M. F. Lovenheim, 2016. "Quantile Treatment Effects of College Quality on Earnings," *Journal of Human Resources*, vol 51(1), pages 200-238.

Jorge Rodríguez, Sergio Urzúa, and Loreto Reyes Heterogeneous Economic Returns to Postsecondary Degrees: Evidence from Chile J. Human Resources published ahead of print November 30, 2015,

Footnote, Andrew and Kevin Stange. 2019. "[Migration from Administrative Data: Problems and Solutions with an Application to Higher Education](#)"

Martin, Shawn. 2021. "Job Search and Earnings Growth: General and Specific Majors" Unpublished Working Paper. University of Michigan.

Monday, January 24: Human Capital vs. Signalling

*Arteaga, Carolina (2017). "[The effect of human capital on earnings: Evidence from a reform at Colombia's top university](#)." *Journal of Public Economics*.

Clark, Damon and Paco Martorell, "The Signaling Value of a High School Diploma," *Journal of Political Economy*, Vol 122 (2, April 2014): 282-318

II. Effects of Student Aid

Wednesday, January 26: Need-based Grant Aid

*Scott-Clayton, Judith, 2017. [*Undergraduate Financial Aid in the United States*](#), (Cambridge, Mass.: American Academy of Arts & Sciences, 2017) - This provides a great overview of the history of financial aid, the main financial aid programs, and the empirical evidence. You should read these overviews in preparation for the discussion for the next two classes (you don't need to get through them all before Wednesday). Try to get a sense of the different types of financial aid, their relative importance, and some of the empirical challenges to assessing their effects

*Castleman, Benjamin L, and Bridget Terry Long. 2016. "[Looking beyond enrollment: The causal effect of need-based grants on college access, persistence, and graduation.](#)" *Journal of Labor Economics*, 34(4): 1023–1073.

Denning, J., B. Marx, and L. Turner, 2018. ProPelled: The Effects of Grants on Graduation, Earnings, and Welfare, *American Economic Journal: Applied Economics*, forthcoming. [US, RD]

Fack, Gabrielle and Julien Grenet, 2015. "Improving College Access and Success for Low-Income Students: Evidence from a Large Need-Based Grant Program" *American Economic Journal: Applied Economics* 2015, 7(2): 1-34.

Page, Lindsay C. and Judith Scott-Clayton, "[Improving college access in the United States: Barriers and policy responses](#)," *Economics of Education Review*, Volume 51, April 2016, Pages 4-22.

Angrist, J., and J. Pischke (2015). Mastering 'Metrics, Chapter 5.

Deming, David and Susan Dynarski (2010). "Into College, Out of Poverty? Policies to Increase the Postsecondary Attainment of the Poor," in eds Phil Levine and David Zimmerman. Available as [NBER working paper 15387](#).

Dynarski, Susan, and Judith Scott-Clayton. "[Financial Aid Policy: Lessons from Research](#)." *The Future of Children* 23, no. 1 (2013): 67-91.

Carruthers, Celleste and Jilleah G. Welch. (2018). [Not Whether, but Where? Pell Grants and College Choices](#). Forthcoming, *Journal of Public Economics*.

Monday, January 31: Merit-based Grant Aid

*Cohodes, S. R., & Goodman, J. S. (2014). "[Merit aid, college quality, and college completion: Massachusetts' Adams scholarship as an in-kind subsidy.](#)" *American Economic Journal: Applied Economics*, 6(4), 251-285. [also refer to online Appendix Tables]

Scott-Clayton, J. (2011). [On money and motivation a quasi-experimental analysis of financial incentives for college achievement.](#) *Journal of Human Resources*, 46(3), 614-646. - bounding

Fitzpatrick, M. D., & Jones, D. (2016). [Post-baccalaureate migration and merit-based scholarships.](#) *Economics of Education Review*, 54, 155-172.

Sjoquist, D. L., & Winters, J. V. (2015). [State merit aid programs and college major: A focus on STEM.](#) *Journal of Labor Economics*, 33(4), 973-1006.

Dynarski, Susan (2003). "[Does Aid Matter? Measuring the Effect of Student Aid on College Attendance.](#)" *American Economic Review* (March).

Wednesday, February 2: Student Loans

*Black, Sandra E., Jeffrey T. Denning, Lisa J. Dettling, Sarena Goodman, Lesley J. Turner, 2020. [Taking It to the Limit: Effects of Increased Student Loan Availability on Attainment, Earnings, and Financial Well-Being.](#) NBER Working Paper No. 27658, August 2020.

Blatman, Chris (2010). [The Discussant's Art](#)

+Solis, Alex (2017). "[Credit Access and College Enrollment](#)" *Journal of Political Economy*, 125(2 April): 562-622.

*Marketwatch interview with Fenaba Addo on student loan debt and wealth

Akers, Beth and Matthew Chingos (2016). [Game of Loans.](#) Princeton University Press. Chapters 1-3

Baker, D. J. (2019). When average is not enough: Examining the variation in the influences on undergraduate debt. Download When average is not enough: Examining the variation in the influences on undergraduate debt. AERA Open, 5(2), 1-26.

Scott-Clayton, Judith. (2018). [The looming student loan default crisis is worse than we thought.](#) *Brookings Evidence Speaks Reports*, Vol. 2 No. 34.

Cellini, Stephanie, and Rajeev Darolia (2017). “[High Costs, Low Resources, and Missing Information: Explaining Student Borrowing in the For-Profit Sector.](#)” *The ANNALS of the American Academy of Political and Social Science*.

Looney, Adam and Constantine Yannelis (2015). “[A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults.](#)” *Brookings Papers on Economic Activity*.

Dynarski, Susan (2015). “[New Data Gives Clearer Picture of Student Debt.](#)” September 10. *New York Times*.

Eaton et al, 2021. [STUDENT DEBT CANCELLATION IS PROGRESSIVE: CORRECTING EMPIRICAL AND CONCEPTUAL ERRORS](#)

Monday, February 7: Loan Nudges

*Marx, Benjamin and Lesley Turner (2019). “[Student Loan Nudges: Experimental Evidence on Borrowing.](#)” *AEJ Applied Economics*, Vol 11 (2) May 2019.(pp. 108-41)

Wednesday, February 9: Free College / Place-based

GUEST: ODED GURANTZ from University of Missouri

*Bartik, T. J., Hershbein, B., & Lachowska, M. (2017). [The effects of the Kalamazoo Promise Scholarship on college enrollment, persistence, and completion.](#)

*Gurantz, Oded. 2019 What Does Free Community College Buy? Early Impacts from the Oregon Promise. *Journal of Policy Analysis and Management*. Forthcoming

+Carruthers, Celeste. 2019. “5 things to know about the Tennessee Promise Scholarship” Brown Center Chalkboard, Brookings Institution. May 6, 2019.
<https://www.brookings.edu/blog/brown-center-chalkboard/2019/05/06/five-things-to-know-about-the-tennessee-promise-scholarship/>

<https://www.nytimes.com/2019/12/20/upshot/50-reasons-free-college-misunderstood.html>

Page, L. C., Iriti, J. E., Lowry, D. J., & Anthony, A. M. (2018). [The Promise of Place-Based Investment in Postsecondary Access and Success: Investigating the Impact of the Pittsburgh Promise](#). *Education Finance and Policy*, (Just Accepted), 1-60.

Harris, Douglas N., Raquel Farmer-Hinton, Debbie Kim, John Diamond, Tangela Blakely Reavis, Kelly Krupa Riflj, Hilary Lustik, & Bradley Carl. (2018). [The promise of free college \(and its potential pitfalls\)](#). Brown Center on Education Policy at Brookings.

Monday, February 14: Free College in Reverse

*Andrews, Rodney and Kevin Stange. 2019. “[Price Regulation, Price Discrimination, and Equality of Opportunity in Higher Education: Evidence from Texas](#)” *American Economic Journal: Economic Policy*, 11(4): 31–65

*[Murphy, Richard, Judith Scott-Clayton, and Gillian Wyness, 2019. The end of free college in England: Implications for enrolments, equity, and quality](#). *Economics of Education Review*. 71: 7-22.

OR

Murphy, Richard, Judith Scott-Clayton, and Gillian Wyness, 2017. “[Lessons from the end of free college in England](#)”. Evidence Speaks Reports 2 (13). Washington, DC: The Brookings Institution.

Azmat, Ghazla and Stefania Simion, 2019. “Higher Education Funding Reforms: A Comprehensive Analysis of Educational and Labor Market Outcomes in England” unpublished working paper.

Wednesday, February 16: Mixed Methods

Guest: Prof. Megan Tompkins-Stange

*IES Grant Proposal: Early First-Dollar Categorical Need-based Aid – A New Model for Making College Affordable? Stange (PI), Michelmores (co-PI), Tompkins-Stange (co-PI)

*Others TBD

Monday, February 21: Differential Pricing

Methodologically we will discuss problems with the “two-way fixed effect” version of the difference-in-differences model and also workshop Assignment 2 as we discuss my paper on differential pricing.

*Stange, K. (2015). [Differential Pricing in Undergraduate Education: Effects on Degree Production by Field](#). Journal of Policy Analysis and Management, 34 (1), 107-135.

Blog post by [Pam Jakeila](#) on the Bacon decomposition

Goodman-Bacon, Andrew, 2019. [So you've been told to do my difference-in-differences thing: A guide](#).

de Chaisemartin, Clément and d'Haultfoeuille, Xavier, [Two-Way Fixed Effects and Differences-in-Differences with Heterogeneous Treatment Effects: A Survey](#) (December 8, 2021). Available at SSRN: <https://ssrn.com/abstract=>

Roth, Jonathan, Pedro H. C. Sant'Anna, Alyssa Bilinski, John Poe. 2021. [What's Trending in Difference-in-Differences? A Synthesis of the Recent Econometrics Literature](#)

Thread by [@agoodmanbacon](#): [In light of this question, I thought I'd do a little thread on purely practical event-study stuff. No theory, just a bunch of pictures of ho...](#)

Summary of the summaries by David Makenzie:

https://blogs.worldbank.org/impactevaluations/new-synthesis-and-key-lessons-recent-difference-differences-literature?cid=SHR_BlogSiteShare_EN_EXT

Twitter thread: <https://twitter.com/cdechaisemartin/status/1468593836976971780?s=11>

DiD workshop: <https://www.youtube.com/watch?v=I5wt3eE5Q5I>

Wednesday, February 23: Affirmative Action Bans and Synthetic Controls

*Hinrichs, Peter 2012. “[The Effects of Affirmative Action Bans on College Enrollment, Educational Attainment, and the Demographic Composition of Universities](#).” Review of Economics and Statistics, Volume 94 | Issue 3 | August 2012 p.712-722

*McClelland Robert and Gault, Sarah , 2017. [The Synthetic Control Method as a Tool to Understand State Policy](#). Urban Institute, March 2017.

+Baker Dominique, 2019. "[Pathways to Racial Equity in Higher Education: Modeling the Antecedents of State Affirmative Action Bans](#)." American Education Research Journal, March 6, 2019.

OR "[Why might states ban affirmative action?](#)" Brookings Brown Center Chalkboard. Friday, April 12, 2019

For reference:

Abadie, Alberto, 2021. [Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects](#). *Journal of Economic Literature* 59(2), 391–425)

[Stata command synth](#)

Zachary Bleemer, Affirmative Action, Mismatch, and Economic Mobility after California's Proposition 209, *The Quarterly Journal of Economics*, Volume 137, Issue 1, February 2022, Pages 115–160, <https://doi.org/10.1093/qje/qjab027>

III. Transfer, Text as Data, & Course Content

Monday, March 7: Community College & Transfer I

*Rouse, Ceclia E. 1995. "Democratization or Diversion? The Effect of Community Colleges on Educational Attainment." *Journal of Business & Economic Statistics*, Vol. 13, No. 2, JBES Symposium on Program and Policy Evaluation (Apr., 1995), pp. 217-224 (8 pages)

* Mountjoy, Jack. 2019. [Community Colleges and Upward Mobility](#). unpublished working paper. Watch this nice video summarizing this paper by Econimate: [Community Colleges and Upward Mobility](#) This has some pretty advanced econometrics that we won't fully get into. Just try to get the broad ideas.

Wednesday, March 9: Community College & Transfer II

GUEST: Rachel Baker from University of California at Irvine

Baker, Rachel, Elizabeth Friedmann, and Michal Kurlaender, 2021. [Improving the Community College Transfer Pathway to the Baccalaureate: The Effect of California's Associate Degree for Transfer](#) EdWorkingPaper No. 21-359

Monday, March 14: Text as Data and Machine Learning Intro

Lily Fesler, Thomas Dee, Rachel Baker & Brent Evans (2019) Text as Data Methods for Education Research, *Journal of Research on Educational Effectiveness*, 12:4, 707-727, DOI: [10.1080/19345747.2019.1634168](https://doi.org/10.1080/19345747.2019.1634168)

Gentzkow, M., Kelly, B. T., & Taddy, M. (2017). *Text as Data* (NBER Working Paper Series No. 23276). Cambridge, MA: NBER.

Davis, Jonathan M.V., and Sara B. Heller. 2017. "Using Causal Forests to Predict Treatment Heterogeneity: An Application to Summer Jobs." *American Economic Review*, 107 (5): 546-50.: <https://www.aeaweb.org/articles?id=10.1257/aer.p20171000>

Wednesday, March 16: ML to classify postsecondary content

Readings TBD

<https://www.statlearning.com/>

One application by Black, Denning, Rothstein 2021:

https://eml.berkeley.edu/~jrothst/workingpapers/top_ten_06_2021.pdf

<https://scikit-learn.org/stable/modules/generated/sklearn.ensemble.RandomForestClassifier.html>

Non-tech guide to random forest

<https://towardsdatascience.com/random-forest-29cf337c68d4>

From CJ: https://lost-stats.github.io/Machine_Learning/Machine_Learning.html

https://lost-stats.github.io/Machine_Learning/random_forest.html

And in stata:

<https://statalasso.github.io/>

Nick HK's package in Stata that runs ML scripts in R

<https://github.com/NickCH-K/MLRtime/>

IV. Higher Education Funding

Monday, March 21: Funding and financing

*Webber, Douglas (2017). “[State divestment and tuition at public institutions.](#)” *Economics of Education Review*, 60

*Archibald and Feldman, 2018. “[Drivers of the Rising Price of a College Education](#)”
Midwestern Higher Education Compact Policy Report, August 2018.

Review just for background:

[State Higher Education Finance: Fiscal Year 2017.](#) State Higher Education Executive Officers Association.

Mitchell, Michael, Michael Leachman, and Kathleen Masterson (2017). “[A lost decade in higher education funding.](#)” Center on Budget and Policy Priorities.

Hemelt, Steve, Kevin Stange, Fernando Furquim, Andrew Simon, and John Sawyer, 2019.
“Why is Math Cheaper than English? Understanding Cost Differences in Higher Education”
NBER Working Paper

Wednesday, March 23: Funding and completion

*Bound, John, Michael F. Lovenheim, and Sarah Turner (2010). “[Why Have College Completion Rates Declined? An Analysis of Changing Student Preparation and Collegiate Resources.](#)” *American Economic Journal: Applied Economics*, vol. 2(3), pages 129-157.

*Denning Jeffrey T Eric R. Eide Merrill Warnick [Why Have College Completion Rates Increased?](#) IZA Discussion Paper No. 12411.

Monday, March 28: Price caps & Spending

*Deming, David and Chris Walters, 2018. [The Impact of State Budget Cuts on U.S. Postsecondary Attainment.](#) Unpublished working paper.

*Deming, David and Christopher Walters (2017). “[The Impact of Price Caps and Spending Cuts on U.S. Postsecondary Attainment.](#)” NBER working paper 23736.

V. College Quality, College Choice, Online

Wednesday, March 30: College quality & accountability

*Dale, S. B., & Krueger, A. B. (2014). [Estimating the effects of college characteristics over the career using administrative earnings data](#). *Journal of Human Resources*, 49(2), 323-358.

+Mountjoy & Hickman

+ SKIM Deming, David and David Figlio (2016). [“Accountability in US Education: Applying Lessons from K-12 Experience to Higher Education.”](#) *Journal of Economic Perspectives*.

Anelli, M. Returns to elite university education: a quasi-experimental analysis *Journal of the European Economic Association*, Volume 18, Issue 6, December 2020, Pages 2824–2868

Monday, April 4: College choice (discrete choice models)

*Delavande, Adeline and Basit Zafar, 2018. "University Choice: The Role of Expected Earnings, Non-pecuniary Outcomes and Financial Constraints." forthcoming, *Journal of Political Economy*

+Jacob, B., B. McCall, and K. Stange. 2018. ["College as Country Club: Do Colleges Cater to Students' Preferences for Consumption?"](#) *Journal of Labor Economics*, 36(2): 309-348.

Hastings, Justine, Christopher A. Neilson, and Seth D. Zimmerman, 2015. "The Effects of Earnings Disclosure on College Enrollment Decisions." NBER Working Paper No. 21300 June 2015

Wednesday, April 6 For-profits

*Cellini, Stephanie and Nicholas Turner (2018). [“Gainfully Employed? Assessing the Employment and Earnings of For-Profit College Students Using Administrative Data.”](#) *Journal of Human Resources*. NBER Working Paper here: <https://www.nber.org/papers/w22287.pdf>

Cellini, Stephanie Riegg, Rajeev Darolia, and Lesley J. Turner, "Where Do Students Go When For-Profit Colleges Lose Federal Aid?" *American Economic Journal: Economic Policy*, forthcoming. [[NBER Working Paper No. 22967](#)]

Cellini, Stephanie Riegg, Cory Koedel, Gregory Gilpin, & Christiana Stoddard, (2017). [Point-Counterpoint: Should For-Profit Colleges Receive Federal Student Aid?](#) *Journal of Policy Analysis and Management* Volume 36, Issue 4, Fall 2017: 933-956.

Gilpin, Gregory A., Saunders, Joseph and Stoddard, Christiana, (2015), [Why has for-profit colleges' share of higher education expanded so rapidly? Estimating the responsiveness to labor market changes](#), *Economics of Education Review*, 45, issue C, p. 53-63.

Monday, April 11: Online

We'll discuss, in a pretty unstructured way, many of the themes in the Deming article. What do you think will/should happen? The two other articles are key pieces of evidence on the effects of online.

Deming, David. 2020. [Online Learning Should Return to a Supporting Role](#) NYT April 9, 2020

*Bettinger, Eric P., Lindsay Fox, Susanna Loeb, and Eric S. Taylor. 2017. "[Virtual Classrooms: How Online College Courses Affect Student Success](#)." *American Economic Review*, 107 (9): 2855-75.

*Goodman, Joshua Julia Melkers, and Amanda Pallais, 2019. "[Can Online Delivery Increase Access to Education?](#)," *Journal of Labor Economics* 37, no. 1 (January 2019): 1-34.

Koefed Westpoint paper

Wednesday, April 13: Reviewing others' work

TBD

Monday, April 18: Wrap-up

Holding Place for Other References

Diff-in-Diff References

Overview:

de Chaisemartin, Clément and d'Haultfoeuille, Xavier, Two-Way Fixed Effects and Differences-in-Differences with Heterogeneous Treatment Effects: A Survey (December 8, 2021). Available at SSRN: <https://ssrn.com/abstract=>

Twitter thread: <https://twitter.com/cdechaisemartin/status/1468593836976971780?s=11>

DiD workshop: <https://www.youtube.com/watch?v=I5wt3eE5Q5I>

<https://twitter.com/PossebomVitor/status/1444024095805526025>

<https://pedrohcg.github.io/>

Recent DD conference (see twitter)

1. Efficient Estimation for Staggered Rollout Designs Jonathan Roth, Pedro H. C. Sant'Anna
2. de Chaisemartin, Clément and d'Haultfoeuille, Xavier, Two-way Fixed Effects Regressions with Several Treatments (December 17, 2020). Available at SSRN: <https://ssrn.com/abstract=3751060> or <http://dx.doi.org/10.2139/ssrn.3751060>
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4. [Difference-in-Differences with multiple time periods](#) Journal of Econometrics
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2. Bugni and Canay (2021, <https://www.sciencedirect.com/science/article/pii/S0304407620300579>) propose a new test for the continuity of the density of the running variable. It works under weaker assumptions than the ones behind McCrary's test. You can easily implement it using the Stata package Rdcont (<https://bitbucket.org/iacanay/rdcont-stata>).

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