Curriculum Vitae

Christopher D. Frenier

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RESEARCH INTERESTS

Industrial organization of hospital and provider markets
Geographic variation in hospital and outpatient prices and utilization
Medicaid and Medicare privatization and the role of managed care in public insurance programs
Vertical integration in health care provider markets and its effect on prices and quality
Measurement of low-value health services and policy responses to promote high-value care

EDUCATION

University of Minnesota – School of Public Health
Ph.D., Health Services Research, Policy & Administration — Spring 2021 (expected)
Health Economics Concentration
GPA 3.9

M.S., Health Services Research, Policy & Administration — Spring 2019 (expected via ABD)

Marquette University
B.A., Philosophy, Economics and German (with Honors) — May 2012

PUBLICATIONS

Minnesota Department of Health Issue Briefs and Reports
Reports available at (http://www.health.state.mn.us/healthreform/allpayer/publications.html)

Commercial Case Price Variation Among High-Volume Inpatient Treatments in Minnesota Hospitals — 2018
Media Coverage: Minneapolis Star Tribune, Minnesota Public Radio, CNBC, Politico Pulse

Analysis of Low-Value Health Services in the MN APCD Issue Brief — 2017
Media Coverage: Minneapolis Star Tribune, Minnpost

Research in Progress
The Long-Term Effects of an Intensive Lifestyle Intervention on Functional Status and Mobility — expected review 2018
With Dr. Peter Huckfeldt – University of Minnesota

The Long-Term Effects of an Intensive Lifestyle Intervention on Utilization and Spending in Medicare — expected review 2019
With Dr. Peter Huckfeldt – University of Minnesota

RESEARCH EXPERIENCE

Cornell University Department of Communication
Independent Data Consultant – Jeff Niederdeppe — 2018-Present

University of Minnesota School of Public Health – Division of Health Policy and Management
Research Assistant – Peter Huckfeldt — 2017-Present

Minnesota Department of Health
Student Worker Para Professional, Senior – Health Economics Program 2015-Present

PROFESSIONAL EXPERIENCE

Zywave, Inc.
Business Analyst, Team Lead – Data Services, Database Analyst 2012-2015

TEACHING EXPERIENCE

University of Minnesota Humphrey School of Public Policy
Teaching Assistant (PA 8302) Policy Analysis, Dr. Janna Johnson 2018

Zywave, Inc.
Workplace Training Workshops - SQL, ETL, Administrative Claims Data 2013-2015

Marquette University
Teaching Assistant – German Department, John Pustejovsky 2012

CONFERENCES

Podium

1. Measuring Low Value Health Services in the Minnesota All Payer Claims Database (2017), Minnesota Health Services Research Conference

Poster

1. Price Variation for Inpatient Care: Evidence from the Minnesota All Payer Claims Database (2018), AcademyHealth Annual Research Meeting, AHRQ NRSA Trainees Research Conference

Attendee

1. Healthcare Markets Conference (2018) – Kellogg School of Management
2. AcademyHealth Annual Research Meeting (2018, 2017)
3. AHRQ NRSA Trainees Research Conference (2018, 2017)
4. Minnesota Health Services Research Conference (2017, 2016)

LEADERSHIP & SERVICE

Division of Health Policy and Management Student Group
Community Service Coordinator 2018-present
Social Chair 2017-2018

School of Public Health – Health Equity Work Group
Student Member 2015-present

Common Ground of Southeast Wisconsin
Healthcare Team Member 2013-2014

AWARDS & HONORS

University of Minnesota - School of Public Health
AHRQ/NRSA Training Grant Recipient 2016-2018
School of Public Health Scholars of Excellence 2.0 2015

Marquette University

Walter Froehlich Award for Outstanding Senior in Economics	2012
Francis X. Boden Award for Outstanding Achievement in Social, Political, and Legal Philosophy	2012

DAAD (German Academic Exchange Service)

Undergraduate Study Scholarship	2010

ACADEMIC HONOR SOCIETIES

Delta Omega	2016
Phi Beta Kappa	2012
Alpha Sigma Nu	2010
Delta Phi Alpha National	2010

GRADUATE COURSEWORK

Masters: Epidemiologic Methods I, Biostatistics I/II, Decision Analysis for Healthcare, Advanced Methods in Health Decision Science, Public Health Research, Healthcare System & Public Health, Introduction to Project Management,

Completed Doctoral: Consumer Choice, Production Theory, Game Theory, Social Choice and Welfare, Health Economics I/II, Econometric Analysis I/II, Research Studies in Health Care, Research Methods in Health Care, Health Services Policy Analysis Theory, Health Services Policy Analysis, Applied Policy Analysis (Public Policy School), Advanced Quantitative Methods Seminar, Cost-Effectiveness Analysis, Medical Sociology, Writing for Research I

In Progress Doctoral: Writing for Research II

RELEVANT COMPETENCIES

Software

SAS, Stata, SQL Server Management Studio, IBM DataStage, TreeAge Pro, MS Office

Languages

German (reading/conversational)

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Division of Health Policy and Management
School of Public Health

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September 23, 2018

Health Economics Selection Committee
National Bureau of Economic Research
1050 Massachusetts Ave
Cambridge, MA 02138

Dear Selection Committee:

I am pleased to write this letter of support for Chris Frenier's application to the NBER Health Economics Research Boot Camp for Graduate Students. Chris is in his third year in the Health Economics track in the Health Services Research, Policy, and Administration Ph.D. program at the University of Minnesota School of Public Health. Chris was enrolled in a Ph.D. seminar in Health Economics that I co-taught, he is a research assistant on one of my projects, and I will be a member of his thesis committee. At this point in his training, Chris is the top student I have worked with in the past 9 years at RAND and the University of Minnesota. He possesses excellent facility with economic theory and econometrics, poses creative research questions, and has advanced skills in SQL programming and claims data analysis.

Students enrolled in the health economics track of our Ph.D. program take first-year econometrics and microeconomics coursework and the microeconomics prelim exam in the Department of Applied Economics. Then, they complete health economics and other course work in the School of Public Health. Chris aced his economics coursework. In the Ph.D. health economics seminar I co-taught with Ezra Golberstein and Hannah Neprash, Chris demonstrated a strong understanding of the papers covered in the course, posed insightful questions in class discussions, and performed exceptionally on the Health Economics prelim this past summer.

During his coursework, Chris has concurrently worked as an analyst in the Health Economics group in the Minnesota Department of Health. In this role, he has conducted extensive analyses of the Minnesota All Payer Claims Database, including constructing analytic data files from raw claims data and then performing econometric analyses. This work included a state report showing extensive variation in commercial payments for common hospital procedures across Minnesota hospitals; this report received national media attention (e.g., CNBC and Politico Pulse). Chris is also working with me on a project linking participants in a long-term randomized lifestyle intervention for diabetes with Medicare data to estimate the effects of weight loss and diabetes control on long-term health care utilization. One challenge in this project was constructing apples-to-apples utilization measures for fee-for-service Medicare and Medicare Advantage enrollees. Chris helped develop an algorithm to do this with Medicare Part A and B claims and HEDIS data.

Chris has devised an innovative dissertation project that investigates the role of Medicaid Managed Care plans' enrollment in provider price negotiation and the broader impacts of competition on quality of care and commercial prices. This project will leverage two plausibly exogenous shocks to plan enrollment in Minnesota's Medicaid Managed Care plans and will benefit from Chris' experience with Minnesota's All Payer Claims Database. I think that this combination of a timely and important research question, ideal data, and clean empirical identification will result in an impactful set of papers.

Chris would benefit from this workshop in two important ways. First, he would be exposed to areas of economics research that receive less focus in our curriculum, such as using structural methods to approach questions in health economics. Second, he would have the opportunity to interact with prominent health economists that are working in the same area as his dissertation. I also think that the workshop would benefit from Chris' participation, as he is an active and thoughtful participant in his courses and seminars.

In summary, Chris is an ideal candidate for this workshop. I recommend him with great enthusiasm.

Please do not hesitate to contact me if I can provide additional information.

Sincerely,



Peter Huckfeldt
huckfeld@umn.edu
(612) 301-1320

September 22, 2018

Christopher Frenier
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Minneapolis, MN 55413
freni003@umn.edu | 414-306-4623

Doctoral Candidate – Health Services Research
Division of Health Policy and Management
University of Minnesota School of Public Health
D305 Mayo Building, MMC 729
420 Delaware St. SE
Minneapolis, MN 55455

Dear NBER Selection Committee,
I am writing to apply for the 2018 Health Economics Research Boot Camp for Graduate Students. I am a third-year doctoral student in Health Services Research – Health Economics at the University of Minnesota and am currently developing a dissertation proposal that I intended to defend in spring of 2019. The NBER Bootcamp is a valuable opportunity to meet with distinguished scholars and other doctoral students to discuss important topics in health care industrial organization and public finance.

My research interests are at the intersection of industrial organization and public finance in health care. The health economics doctoral program at University of Minnesota has prepared me for a career in research by providing opportunities to study research methods, causal inference, and the role of evidence in policy making and policy analysis. In May 2018 I had the pleasure of attending the Healthcare Markets Conference at Northwestern University to discuss emerging research in competition and industrial organization with top economists. This experience cemented my passion for studying market power in health care and led me to better appreciate the challenges and strategies of producing high quality evidence in the field.

Since 2015, I have worked at the Minnesota Department of Health as a student researcher in the Health Economics Program, where I use the Minnesota All Payer Claims Database to investigate questions and topics about health care delivery and pricing in Minnesota. The results of my research on low value health care and commercial price variation in Minnesota were published as issue briefs, used as evidence at State Senate committee hearings, and have garnered local and national press attention. My experience in academic research and state government has been invaluable in understanding the challenges and opportunities for translating strong economic research into forms that are digestible and actionable for policy makers and the public.

Attached you will find my CV and a brief essay describing my dissertation proposal, future research interests and motivation for attending the Research Boot Camp. One of my advisors at the University of Minnesota, Dr. Peter Huckfeldt, is submitting a letter of recommendation on my behalf. Thank you for considering my application and I look forward to hearing more about the opportunity to participate in the 2018 Boot Camp.

Sincerely,



Christopher Frenier

Recent state and federal policy proposals have reinvigorated public interest in Medicaid's role in providing safety net insurance for some of the most vulnerable and medically needy populations in the United States. Medicaid is frequently referred to as public insurance, but the role of private managed care organizations (MCOs) in administering publicly financed insurance benefits has grown over the last 20 years. In 2016, 81% of Medicaid enrollees were enrolled in some form of private managed care and 47 states enrolled more than half their Medicaid population in managed care (The Henry J. Kaiser Family Foundation 2016). Evidence on the effects, goals, and mechanisms of managed care in Medicaid is severely lacking. I hope to attend the 2018 NBER Health Economics Research Boot Camp to learn more about how to approach studying privatization and competition in settings with public funding and private delivery of benefits. The conference is a unique opportunity to learn from distinguished researchers and my peers as I refine my dissertation proposal and future research.

My dissertation will focus on the effect of competition in Minnesota's Medicaid Managed Care (MMC) programs on provider reimbursement, quality, and access. Studies examining the effect of MMC on spending, utilization and outcomes find mixed results across states. This suggests that local provider and insurance markets, as well state-specific Medicaid program details, matter when evaluating the impact of Medicaid privatization (Duggan and Hayford 2013; Gruber 2017; Marton, Yelowitz, and Talbert 2014). One of the goals of my dissertation is to identify potential pathways through which insurers may leverage their market share in the Medicaid contracting process and how market power in Medicaid and commercial insurance are related. The pathways through which insurer market power may interact across insurance types are numerous, underscoring the need for a careful and creative empirical approach. One of my goals at the Research Bootcamp is to further develop a conceptual and empirical strategy for studying the interaction of private and public insurance during contracting and provider-network formation.

My dissertation will consist of three papers exploring how market share affects provider reimbursement in MMC, how reimbursement and market power affect quality and access for Medicaid patients, and how MMC market power affects the prices of health services in Minnesota's commercial market. I plan on using a reduced form approach that exploits institutional details of Minnesota's MMC bidding process to estimate how MCO market share in Medicaid affects each of these outcomes. Leveraging the Minnesota All Payer Claims Database for this project is a unique opportunity to study this issue using a near-census of both commercial and Medicaid claims for a single state.

The conceptual approach of my dissertation lends itself to a rich set of future research questions about how MCOs behave strategically across insurance programs. Given the high rate of churn in and out of the Medicaid program, MCOs may pursue strategies to create brand loyalty to their insurance products that persists

after a Medicaid enrollee transitions to the commercial insurance market. Competitive bidding and market entry/exit may disrupt continuity of care for Medicaid enrollees if they lose access to a provider or health system. Managed care strategies and low reimbursement may push health systems to pursue vertical and horizontal integration to win back pricing power or improve their margins in non-Medicaid plans. Mergers between health systems and MCOs may have very different effects for Medicaid prices than for commercial prices. Each of these topics is unexplored in the literature on MMC and the chance to discuss future research questions with the Bootcamp instructors and participants would hone these ideas and surface opportunities for collaboration.

In addition to refining a conceptual model and identification strategy for my dissertation, I hope to use the Research Bootcamp as an opportunity to develop my understanding of structural modeling methods for the negotiation process between health plans and health systems. This is an area with relatively little support in my program, but I think structural models are important for generalizing Medicaid research beyond single state experiences. Modeling the network formation game between MCOs and health systems where each party's outside option in Medicaid depends on the outcome of commercial insurance negotiations can help to identify spillovers between MMC and commercial insurance that generalize outside of Minnesota. The instructors for the workshop have rich experience in modeling insurer-health system negotiations. Being able to discuss this with experts and other students would help clarify structural approaches to MMC and expose me to new methods.

My research aims to evaluate whether Medicaid managed care ensures beneficiaries access to high-quality health care at prices that support a sustainable program for both taxpayers and health care providers. I hope to have the opportunity to discuss my dissertation topic and ideas for future research at the 2018 Health Economics Research Boot Camp and learn from experts and peers about how economic research can contribute to our understanding of the role of private insurance companies in public insurance programs.

Duggan, Mark, and Tamara Hayford. 2013. “Has the Shift to Managed Care Reduced Medicaid Expenditures? Evidence from State and Local-Level Mandates.” *Journal of Policy Analysis and Management* 32(3): 505–35. http://doi.wiley.com/10.1002/pam.21693 (September 7, 2018).

Gruber, Jonathan. 2017. “Delivering Public Health Insurance Through Private Plan Choice in the United States.” *Journal of Economic Perspectives* 31(4): 3–22. http://pubs.aeaweb.org/doi/10.1257/jep.31.4.3 (September 7, 2018).

Marton, James, Aaron Yelowitz, and Jeffery C Talbert. 2014. “A Tale of Two Cities? The Heterogeneous Impact of Medicaid Managed Care.” *Journal of Health Economics* 36: 47–68. http://dx.doi.org/10.1016/j.jhealeco.2014.03.001 (September 12, 2018).

The Henry J. Kaiser Family Foundation. 2016. “Total Medicaid Managed Care Enrollment.” https://www.kff.org/medicaid/state-indicator/total-medicaid-mc-enrollment/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D (September 19, 2018).