

January 26, 2021

Dear Economics Department,

I'm writing to apply for a grader position for the Department of Economics at UW-Madison. I am a first year PhD student in the Department of Economics, and I am eager to build on my prior work experience and apply the concepts I've learned in class to this grader position. My strong academic performance and previous work experience in research related to economic inequality enable me to make a valuable contribution to the Department of Economics.

In my undergraduate studies, I majored in Economics and minored in Social and Economic Justice. Through my minor, I took several classes dedicated to understanding the relationship between socioeconomic factors, inequality and economic outcomes. In addition to studying the economics of inequality in the classroom, I volunteered at the Community Empowerment Fund (CEF). At CEF, I worked directly with individuals experiencing homelessness and extreme poverty to provide person-centered support, financial education, and asset building tools. This work further emphasized the importance of understanding the intricate dynamics of poverty, inequality, and economics.

Following graduation, I built on my understanding of the economics of inequality by working as a research analyst in the Public Health Economics Program at RTI International. While at RTI, I worked on several projects focused on social determinants of health, accessibility of affordable healthcare, and public assistance programs. In my future research, I hope to continue to evaluate health economics issues through a lens that accounts for how accessibility, quality, and cost of care is affected by poverty and the attendant socioeconomic factors.

My interest in research related to economic of inequality motivates me to apply for this position. I would welcome the opportunity to interview with you and discuss my qualifications further. Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "Sarah Bass".

Sarah Bass  
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# SARAH J. BASS

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## EDUCATION

**University of Wisconsin - Madison**  
Ph.D., Economics

August 2020 -  
present

**University of North Carolina at Chapel Hill**  
B.A., Economics (GPA 3.90)

Graduated May  
2018

## PROFESSIONAL EXPERIENCE

**RTI International**, Public Health Economics Program under Dr. Amanda Honeycutt  
*Economist 2 (Dec 2019 – July 2020)*  
*Economist 1 (June 2018 – Nov 2019)*  
Research Triangle Park, NC

June 2018 –  
July 2020

- ◆ Conduct statistical and econometric analyses using data sets such as the Medical Expenditure Panel Survey (MEPS), the National Health and Nutrition Examination Survey (NHANES), and Hospital Compare in Stata
- ◆ Build economic models in TreeAge and Excel to evaluate costs and cost-effectiveness of interventions related to cardiovascular disease, maternal and child health, Crohn's disease, HIV, and other health concerns
- ◆ Perform literature reviews and synthesize findings in memos and reports

**Economic Development Partnership of North Carolina**  
*Research Analyst Intern*  
Cary, NC

Jan 2018 –  
April 2018

- ◆ Consolidated business insights data for companies looking for information on their industry, local economic development organizations, or inquiring agencies
- ◆ Analyzed development data to assess North Carolina's current business climate

**Ashoka**  
*Research Intern*  
Arlington, VA

June 2017 –  
Aug 2017

- ◆ Identified trends in health innovation across Ashoka's network of 3,000 social entrepreneurs
- ◆ Disseminated surveys and analyzed qualitative and quantitative data for online 'Innovation in Health and Wellness' courses
- ◆ Wrote internal and external reports about the impact of coursework on participants' productivity

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## RESEARCH EXPERIENCE

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**Paul Coverdell National Acute Stroke Program Evaluation**

2019 – present

*Programmer and Analyst*

The Centers for Disease Control and Prevention (CDC) funds the Paul Coverdell National Acute Stroke Program to develop high-quality stroke systems of care and decrease the rate of premature death and disability from stroke. CDC contracted with RTI International to develop a simulation model and conduct a comprehensive evaluation of the 2015-2020 Coverdell program to assess program effectiveness, estimate potential long-term impacts of the program, and identify successful program strategies that contributed to these improvements. Duties include performing difference-in-difference analysis in Stata using data from the Coverdell Registry, American Hospital Association, and Hospital Compare, programming and running the simulation model in TreeAge, writing reports, preparing manuscripts for publication, and presenting results on calls with the CDC team.

**Philippines Family Planning Cost [PFP Cost] Model**

2019 – present

*Programmer and Lead Analyst*

PFP Cost is a locally adaptable Markov model developed as part of USAID's Reach Health initiative to estimate the impact and cost effectiveness of family planning interventions in the Philippines. Users can select scenarios to evaluate such as marketing campaigns and stock-out reductions that increase the accessibility and utilization of modern family planning methods. Duties include designing the layout of the model in Excel, programming the model in Visual Basic, and calibrating model input parameters.

**Prevention Impacts Simulation Model [PRISM]**

2018 – present

*Analyst*

RTI is working with CDC's National Center for Chronic Disease Prevention and Health Promotion to model short- and long-term outcomes of community-based health interventions. PRISM simulates trajectories for health and cost outcomes for the U.S. population from 1990 to 2040 to estimate the impacts of community preventive activities on health, risk behaviors, and medical costs. The model incorporates the effects of more than 30 interventions to increase physical activity, decrease smoking prevalence, improve nutrition and weight loss, and expand and improve medical care for chronic diseases. Duties include validating model projections, updating initial conditions, cross-validating the model with published estimates, performing literature review, and using the model to evaluate state-level public health interventions implemented across the United States.

**HIV Optimization and Prevention Economics [HOPE] Model**

2018 – present

*Analyst and Project Manager*

RTI has worked closely with the CDC's Division of HIV/AIDS Prevention to develop the HOPE model, a dynamic, compartmental model of HIV in the United States. The HOPE model uses MATLAB software to analyze the HIV disease stage and care continuum stage for all people aged 13 and older living with HIV. Duties include providing model technical assistance and conducting project management tasks.

**Model of Anti-Tumor Necrosis Factor Therapy for Crohn's Disease**

2019

*Programmer and Lead Analyst*

RTI contracted with the Patient-Centered Outcomes Research Institute (PCORI) to develop a Markov model of Crohn's disease to evaluate the differences in costs and health outcomes associated with using biologic therapy instead of corticosteroids. Duties included designing the model diagram, performing literature review, calculating cost inputs in Stata using the

Medical Expenditure Panel Survey, programming the one-way sensitivity analysis and probabilistic sensitivity analysis in Visual Basic, writing reports, developing presentation materials, and conducting project management activities.

**Model of Broad- and Narrow- Spectrum Antibiotics for Children with Acute Respiratory Tract Infections** 2019

*Analyst*

RTI contracted with PCORI to develop a Markov model to evaluate the differences in costs and health outcomes of broad- and narrow-spectrum antibiotic use to treat children with acute otitis media, acute sinusitis, and group A streptococcal pharyngitis. Duties included writing reports and programming the one-way sensitivity analysis, probabilistic sensitivity analysis, and scenario analysis in Visual Basic.

**Alive & Thrive Nigeria Evaluation** 2019

*Lead Analyst and Data Manager*

RTI is evaluating the effectiveness of Alive and Thrive, an initiative to improve maternal and child health through optimal nutrition, breastfeeding, and feeding practices. Duties included testing survey programming, cleaning survey data, and writing code in Stata to auto populate table shells in Excel with each wave of survey data.

**Mission: Lifeline Economic Evaluation** 2019

*Analyst*

RTI worked with the American Heart Association to evaluate the effectiveness of the Mission: Lifeline program, which aims to improve health outcomes for patients with an ST-elevated myocardial infarction. Duties included analyzing cost data produced from surveys, performing literature review, and writing reports.

**Model of Surveillance Strategies for Colorectal Cancer** 2018 – 2019

*Analyst*

RTI contracted with PCORI to develop a Markov model of colorectal cancer to evaluate the differences in costs and health outcomes associated with the frequency of surveillance for colorectal cancer. Duties included performing literature review and programming the one-way sensitivity analysis and probabilistic sensitivity analysis in Visual Basic.

**Asthma Simulation Model** 2018 – 2019

*Analyst*

RTI worked closely with CDC's Asthma and Community Health Branch to model the effect of pediatric asthma interventions such as home visits, care linkages, and environmental trigger reductions on school days missed, emergency department visits, and hospitalization days. Duties included performing literature review and writing reports.

**Cost Effectiveness of Pneumococcal Vaccination for Elderly and High-Risk Adults** 2018

*Analyst*

RTI developed a Markov model of pneumococcal disease and associated medical and indirect costs to assess the cost effectiveness of pneumococcal vaccination for elderly and high-risk adults. Duties included performing literature review and collecting, cleaning, and managing publicly available data.

**AWARDS AND HONORS**

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<b>RTI Spot Award</b>	2019
<ul style="list-style-type: none"> <li>◆ Awarded to RTI employees for showing exemplary performance that furthers research division or research unit goals “on the spot.”</li> </ul>	
<b>Phi Beta Kappa</b>	2018
<ul style="list-style-type: none"> <li>◆ Invitation for membership is extended to students that demonstrate academic excellence in liberal arts and sciences at the undergraduate level</li> </ul>	
<b>Graduated with Highest Distinction</b>	2018
<ul style="list-style-type: none"> <li>◆ Recognizes students who graduate with a cumulative GPA of 3.80 or higher</li> </ul>	
<b>Buckley Public Service Scholar</b>	2018
<ul style="list-style-type: none"> <li>◆ Recognizes students who demonstrate a commitment to public service by completing more than 300 hours of community service during undergraduate years</li> </ul>	
<b>Dean’s List</b>	2014 – 2018
<ul style="list-style-type: none"> <li>◆ Recognizes students who earn a GPA of 3.50 or higher for the semester</li> </ul>	
<b>EXTRACURRICULAR INVOLVEMENT</b>	
<b>Women in Economics</b>	2017 – 2018
<i>Director of Marketing</i>	
<ul style="list-style-type: none"> <li>◆ Recruited more than 35 members and led activities during the first year as a recognized student organization as part of the inaugural executive team</li> <li>◆ Organized monthly events such as graduate student panels, alumni career panels, and professor speed-networking</li> <li>◆ Promoted club activities through social media and regular emails</li> </ul>	
<b>Alpha Phi Omega Service Fraternity</b>	2015 – 2018
<i>Service Vice-President</i>	
<ul style="list-style-type: none"> <li>◆ Organized weekly service events for more than 125 members in our chapter for local and national organizations including Ronald McDonald House, Habitat for Humanity, Jordan Lake Clean-up, TABLE, and others</li> <li>◆ Tracked member hours and ensured each member completed at least 25 hours of volunteer work each semester</li> </ul>	
<i>Membership Vice-President</i>	
<ul style="list-style-type: none"> <li>◆ Organized the new member recruitment process whereby approximately 35 new members were selected from a pool of 100 interested students each semester</li> <li>◆ Planned weekly social events and tracked attendance</li> </ul>	
<b>Admissions Ambassadors</b>	2015 – 2018
<i>Tour Guide</i>	
<ul style="list-style-type: none"> <li>◆ Led campus tours for prospective students and their families, including providing information about academics, housing, UNC history and traditions, and campus life</li> <li>◆ Participated in student life and academic panels for Admitted Students Days</li> </ul>	
<b>Community Empowerment Fund</b>	2016 – 2017
<i>Advocate</i>	

- ◆ Provided financial education and relationship-based support to sustain transitions out of homelessness and poverty for individuals seeking employment, housing, and financial security

## **PROGRAMMING SKILLS**

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**Stata**

**TreeAge**

**Latex**