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Property and Environment Research Center

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Dear Members of the Search Committee,

I am applying to the PERC Graduate Fellowship. I am a second-year student in the Agricultural Economics Ph.D. program at Purdue University, specializing in Resources, Environment, and Sustainable Production. I expect to complete my graduate work in 2027. I use economics to research environmental justice, policy, conservation, recreation, and natural capital.

Using nonmarket valuation techniques to estimate the value of environmental resources is a meaningful part of my work, since it is crucial for informing policy decisions. I have applied nonmarket valuation to assess the economic benefits of water quality restoration and wildlife conservation. One memorable project involved using hedonic analysis and a residential sorting model to estimate the value of water quality improvements in Lake Michigan, which was especially meaningful as I conducted the research while attending Loyola University, located on the shores of Lake Michigan. I am deeply interested in understanding how people value nature, particularly through recreation. I’ve contributed to natural capital accounting research with a paper in which I constructed a time series of nonmarket income generated by recreational fisheries in Lake Michigan. Currently, I am working on a paper that estimates the recreational hunting values in Indiana using contingent valuation. This research has given me the opportunity to collaborate with experts at the Indiana Department of Natural Resources and engage with waterfowl hunters in Indiana while designing my survey. This aspect of my work is especially meaningful to me because I aim to ensure my research has real-world impact, and I believe it’s important to integrate perspectives from other disciplines. I am passionate about research that enhances the effectiveness and equity of policy. This includes analyzing who receives the economic benefits of policies, and who might be disproportionately harmed. I am also interested in the behavioral aspects of policy, such as what motivates individuals to participate in voluntary environmental programs. I am exploring these interests in my dissertation at Purdue by examining what motivates people to participate in flood buyout programs and how these programs may affect race, income, and tenure groups differently.

My first year of Ph.D. coursework solidified my foundation in microeconomic theory, statistics, econometrics, and mathematics. Since then, my coursework has focused on environmental economics, my specialization, while also enhancing my data analysis skills using tools like MATLAB, Stata, Excel, Julia, Mathematica, and R. I am training to become an independent researcher through my work as a research assistant. A significant part of my second year has been dedicated to developing my dissertation research ideas. As our program requires us to complete a prospectus before the third year, much of my time after passing the first-year qualifying exams has been spent working on this. Through this process, I have gained valuable skills that will help shape my future research career. The journey has involved countless hours of reading, often leading to dead ends, only for an idea to eventually emerge that I am genuinely excited about.

I am interested in being a PERC fellow in order to support my research and contribute to my development as an economist. Through the fellowship, I will learn more about nonmarket valuation techniques through my application of the contingent valuation method (CVM) to estimate the value of hunting sandhill crane in Indiana. My current research is not only focused on estimating the value of natural resources, but also improving methods to understand how people value outdoor recreation. My research at Purdue examines validity testing of CVM. I use a theoretical model to decompose the effects of changing multiple permit attributes on willingness to pay (WTP) for sandhill crane harvest permits. My findings suggest that there are countervailing impacts of changing bag limits and harvest quotas, which may mask changes in WTP and make the results appear insensitive. I am excited about this aspect of the research project because I am contributing to advancing the methodology used by economists, which hopefully will lead to better estimates from future research.

I hope to use the skills that I gained in the fellowship to secure a career in academia. The fellowship would also allow me to extend the impact of my research through presentations and contributing to a community of other scholars in the field. I would take this opportunity to learn from other researchers, which would help me learn different research styles and grow my network. I also hope to learn about emerging research being conducted by other scholars. This will be especially helpful as I formulate my own research ideas for my dissertation. I appreciate your time and consideration in reviewing my application, and I look forward to hearing back from you.

Sincerely,

Emma Donnelly

Reference: Carson Reeling creeling@purdue.edu (major advisor)