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RE: Next Generation Connecticut -- S.B. No. 840

Senators, my name is Chris Field, and I'd like to thank you for the investment Connecticut has already made in me through its support of UConn's STEM fields, and to make sure you are aware of what the State is getting out of training and supporting grad students like me. I did my undergrad and Masters at UConn, which led to a job with the Connecticut office of Audubon, a national conservation non-profit. After several years in the work force, I am back at UConn, two years into my PhD. My experiences at Audubon, working in Connecticut, motivated me to do research on solving specific problems facing our state.

One pressing problem is finding ways to protect Connecticut's coastal communities from the economic disasters that would result from being unprepared for the effects of sea level rise. Anyone who has been in downtown Stratford, for example, during a high spring tide has had a glimpse of Connecticut's challenging future - a future that is literally lapping at our doorstep. And we have to prepare for this future without compromising the living resources that make Long Island Sound ecologically - and economically - valuable. This would be a daunting task even if Connecticut had unlimited resources; but as we all know, in reality our State agencies are going to be facing these challenges on shoestring budgets. This is the kind of problem that I'm addressing through my research. I'm combining information on the Sound's living resources with property values to create decision-support tools that will enable State agencies and non-profits to make smarter decisions about which parcels of land need to be purchased, sold, or protected to balance the diverse needs of Connecticut's coastal communities, who are already feeling the effects of a rising sea. These tools will enable agencies to achieve the greatest return on their investment - the most bang for their buck - resulting in direct, short-term cost-savings to the State through greater efficiency. In fact, I'm already working with the Wildlife Division of our Connecticut Department of Energy and Environmental Protection to start applying my research tools on-the-ground.

Everything I've been able to accomplish so far as a young scientist is a direct result of working with UConn's world-class scientists and having access to cutting-edge technology. For example, the tools I'm developing for my research combine large ecological and real estate datasets into mathematical models, which require high-level computational facilities. My research would not be possible without UConn's Bioinformatics Facility, which maintains a 17-node computing cluster in a space that was built as part of UConn 2000. But this facility is already working at capacity. To stay competitive and recruit more problem-solvers like me to Connecticut, UConn will need to increase access to state-of-the-art facilities like this one. To this end, I see NextGen Connecticut as a very smart investment in training more scientists who will have the education and facilities needed to tackle Connecticut's most pressing problems.