

1135-97-1994      **Gwen Spencer\*** ([gwenspencer@gmail.com](mailto:gwenspencer@gmail.com)), 180 Pleasant Street, APT 306, Easthampton, MA 01027. *Too Big is Better than Too Small: In Pursuit of Just Right.*

Undergraduates often have significant prior practice in small-scale well-defined tasks that can be resolved in minutes or hours. The persistent dilemma in selecting research projects for undergraduates is choosing a problem big enough to provide a meaningful challenge, and small (or curated) enough so that the student can get some traction.

As an applied mathematician, I advocate starting big, involving students in problem formulation, and designing projects where the students act as the primary expert on some part of the project. I'll mention several personal experiences in advising interdisciplinary applied undergrad research projects, and mention strategies I've used to both stretch and focus the scope of such projects in real time. My top goals in research advising are that the student should gain an authentic sense of ownership, view their contribution in the context of a larger body of knowledge, and have personal questions and ideas about next steps by the end of the project. (Received September 25, 2017)