The debate over whether undergraduates are able to engage in meaningful mathematical research appears to be resolved, at least among members of the MAA. Yet the issue of which students are ready to succeed at and benefit from undergraduate research is less well understood. This talk will outline arguments for providing undergraduate research opportunities to students who are likely to be overlooked when seeking suitable research-ready students and provide stories of unexpected adventures experienced by some of these students and their faculty guides. (Received September 22, 2011)