The Physics Graduate Experience: Happiness and Productivity AMBER BYRUM, SARA MUELLER, CHRISTOPHER PORTER, ALISON KOENKA, ANDREW HECKLER, The Ohio State University — To better understand the attrition rate of Physics PhD students, our multi-year study, still in initial stages, aims to describe the various pathways students navigate while enrolled in a physics Ph.D. program at Ohio State University. Via surveys, we measure Ph.D. satisfaction with a modified scale of happiness and rank students’ productivities by self-reported achievements of traditional graduate school milestones. Here we present preliminary results of a multiple-regression model that suggests a student’s sense of belonging in their research group, effort cost, and recognition in the PhD program play critical roles in PhD satisfaction.