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Using Time-on-Task Measurements to Understand Student Performance in a Physics Class: A Ten-Year Study JOHN STEWART, West Virginia University — The amount of time spent on out-of-class activities such as working homework, reading, and studying for examinations is presented for 10 years of an introductory, calculus-based physics class at a large public university. While the class underwent significant change in the 10 years studied, the amount of time invested by students in weeks not containing an in-semester examination was constant and did not vary with the length of the reading or homework assignments. The amount of time spent preparing for examinations did change as the course was modified. The time spent on class assignments, both reading and homework, did not scale linearly with the length of the assignment. The time invested in both reading and homework per length of the assignment decreased as the assignments became longer. The class average time invested in examination preparation did change with the average performance on previous examinations in the same class, with more time spent in preparation for lower previous examination scores ($R^2 = 0.70$).

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