Where does the money go? An analysis of the cost distribution in domain modeling processes

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Abstract. Prior research has highlighted the challenges modelers and organizations face in assessing the costs and potential returns of domain modeling. While tangible expenses, such as acquisitions (e.g., tools, equipment), infrastructure (e.g., computers, rooms), and administrative costs (e.g., travel, coffee breaks), are straightforward to calculate, they constitute only a small portion of total costs. In contrast, workforce expenses, which represent the largest share, are far more difficult to predict and measure. This paper aims to provide empirical evidence on the distribution of hours worked across modeling activities. This knowledge will aid modelers and organizations in more effectively assessing and managing resources, ensuring that modeling investments are aligned with practical constraints and stakeholder objectives. The study will employ a multi-method approach to gather expert judgments. First, a survey will validate the selection of modeling activities for analysis. Next, an experiment will examine how expert modelers estimate the time they or their teams dedicate to each activity. The findings will provide a detailed analysis of workforce allocation in the modeling process.

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