

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Calling Planet Earth - Space Outreach to the General Public (6)

Author: Prof. Sebastian Fehrler
University of Bremen, Germany

Prof.Dr. Lars Hornuf
TU Dresden, Germany
Mr. Daniel Vrankar
TU Dresden, Germany

THE PUBLIC ECONOMICS OF SPACE EXPLORATION

Abstract

Public support is vital to the space industry because the sector still receives about one-third of its funding from governmental budgets. Therefore, research and the media have extensively investigated and debated citizens' opinions toward space expenditures. Various factors, for example, the overestimation of the actual space budget and sociodemographic factors have been identified as relevant determinants of public support for space funding. Existing research is insufficient for two reasons. First, research is primarily concerned with the public opinion toward government space agencies. With the emergence of the new space industry, this approach is no longer valid, as public support might change depending on whether a governmental agency or a private company receives funding. Second, while literature is primarily focused on the United States (U.S.), other nations have taken on significant roles in space exploration as well. We extend existing literature by analyzing nine leading space nations and considering the impact of the new space industry on the public opinion of space expenditures. We will investigate the public opinion of space funding and the effectiveness of different communications strategies using statistical hypotheses testing and regression analysis. Our data will be extracted from an online survey experiment with over 2000 citizens. Overall, we test three different communication strategies. First, we want to survey the participants' knowledge of their nation's respective space budget. We then test whether an information treatment, i.e., telling participants the actual space budget of their nation, increases their approval of space spending, as research from the U.S. suggests. Second, we will test whether citizens' approval of space funding differs on whether a new-space company or a governmental agency receives these resources. This is a very important question as new-space companies might be more efficient in space exploration than traditional governmental agencies. Finally, we will examine the effectiveness of a space race narrative, which in recent years regained popularity. By informing participants about the progress of the strongest competing nation in space exploration, we test whether this space race narrative affects their desired national space budget. We have fully designed our experiment and will run it within the next two months. Our findings will provide important guidance to public relations practitioners in space agencies worldwide. We can provide targeted advice broken down by country and demographic factors, stating which form of communication is most effective in convincing people of supporting space funding.