

Research Funding in Cosmic Frontier (CF) and throughout HEP (Gaitskell/Lippincott)

- Incredible progress in CF (and HEP) research over last decade.
 - CF points to new physics!
- University research support appears to be at long-term low
 - Program managers do what they can but have constrained budgets
 - e.g. Current target for new DOE faculty in CF after multiple rounds of successful review is 1 PD/1GS. More established grants have also been brought down to this level. Differentiation on upside should be available for project science heavy-lifters [See July 2022 - Report on Status & Funding Opportunities to [Snowmass](#)])
- Faculty struggle to maintain groups to contribute to design, construction, and particularly exploitation phases of experiments
 - Lack of continuity in physics programs because so little opportunity for overlap of personal and development of specializations
 - Limitation on graduate training
 - Limitation in diversity within groups
- Faculty driven to seek additional funding joining multiple projects in parallel, distracting from key mission of agencies
 - Negative impact on experimental science exploitation/follow-through

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- Past panels ([2014 P5](#), [2020 CoV](#)) have looked at the question of research funding
 - P5 2014 p8 “the budget fraction invested in construction of projects to the 20%–25% range”
 - P5 2014 p9 “the community has been coping with a sequence of recent cuts in the research program budgets, and there is a strong sense that further erosion without careful evaluation will cause great damage.”
 - 2020 Committee of Visitors recommend increase of research back to pre-P5 level. Research and Technology program funding trends mean that the “ability of the university and laboratory groups to design and build, operate and analyze, and theoretically interpret the experimental data is at risk.” If allowed to continue, the consequences will become severe...
- We ask P5 to use the resources at their disposal to gather comprehensive data on university funding to understand the issue with all agencies
 - Historical university support across each frontiers including PI #.
 - What is the most effective level of personnel support for a successful research group?
- New physics is there to be discovered, but it will not happen without appropriate investment