HARVEY MUDD COLLEGE

Workload in the Core

CRPT Faculty Meeting

October 26, 2017

A note…

The comments and feedback that you've provided us in the first two forums have been hugely useful and we're very grateful for your engagement and contributions.

As you can imagine, we're getting a lot of different responses and we're doing our best to be mindful of everything that you're telling us. At last week's session on student struggles in the core, some people said that they would like to see a lot more data and offered ideas for different kinds of studies and types of analyses. Others said that the data and analyses may have some utility, but that much of the student experience can't be quantified and we'll need to accept that and rely on other inputs, including our own experiences and intuition.

Our goal for this semester is to try to get us as a faculty to identify a set of guiding principles for the core. We believe that data can be useful and we're endeavoring to collect and analyze the data that we can access. We're sharing representative data with the faculty and community and posting those data and more on the CRPT website. But, we also concur that these data are one of many inputs in this process. It can inform us, but it can't be the driver in the process of developing a set of guiding principles for the core.

If and when we move to the next phase of implementation of those principles - whatever they turn out to be - we can explore more data to help support those efforts.

When we last left you…

At our last meeting, we provided the prompt:

Do these data [sex, race, high-school prep] impact your view of what the goals of our core should be? If so, in what way?

What we heard back:

(i) Some people thought that the rate of struggling (as we defined it) was low and/or normal whereas others were alarmed by it and felt that the threshold for struggling was actually very low and that many more students are probably struggling than indicated by these data.

(ii) Some people wanted more data and different analyses, but some also noted more data might be helpful in specific courses but not in formulating the objectives or design of the core.

(iii) The struggles that students confront at Harvey Mudd may not be measurable or quantifiable.

(iv) A number of respondents indicated that the core should provide a common set of foundations, but that the path to achieving that should be more flexible.

Workload…

Many Alumni Liked the Core Workload

- “I went to Mudd for the firehose; I loved the firehose; I think something important would be lost if Mudd weren't fantastically challenging; I would do it all over again in a heartbeat.”

- “I got exactly what I wanted out of Mudd’s core. I was pushed to my limit … Mudd’s core was the first time I found myself presented with a problem I couldn’t solve. I was struggling to keep up in some classes. I hardly did anything but work. It was exhausting. It was exactly what I wanted when I was looking for a college … I wouldn’t change it. I would much rather have the things I learned during Core than any extracurricular activity.”

Many Alumni Said the Workload is Fine

“Passion makes time for itself. Ask anyone with a girl/boyfriend. No matter how much time is given, it will always seem like there is never enough. The frosh always feels like they have no time for any extra-curricular activity. Yet the seniors’ workload is usually greater, but by that time, they have learned how to manage that work better. I remember how crushing that workload was. But I also remember how much time I had to ‘fritter away’. It took time to learn how to better manage it, and to develop confidence in my own abilities.”

Many Alumni Liked the Core Workload

- “People should go to Mudd not because it will be easy, but because it will be hard. You will have to work the hardest you ever have. And as a result, you will get the best STEM education possible. You will learn more than you had imagined you could.”

- “[HMC is] like Navy SEAL boot camp – I've never worked harder than I did at Mudd (including graduate school, getting tenure, etc). I was miserable (at times) while at Mudd – but I also learned a lot about myself in the process … Mudd was hard, extremely challenging, and stressful, but if I had to do it again, I definitely would.”

Many Alumni Said the Core Workload Did Not Allow Enough Time for Deep Understanding

“I think what I disliked most about Core was the sense that if you ever fell behind, you were almost doomed in some sense because it was impossible to catch back up … And because Core was always going at this break-neck pace, with so much content crammed in, I felt like I never really deeply understood or retained a lot of the concepts – I was putting everything I had into just scraping by.”

Many Alumni Said the Core Workload Did Not Allow Enough Time for Deep Understanding

“Even in my own major, CS 60 was really beyond me due to time constraints (I got a B but felt very unsure about my understanding). Now I'm a full professor of computer science and direct a research center, so it's not like I wasn't a smart and capable person. There was just too much going on that second semester. I began to feel that STEM was about pain and struggle, not exciting ideas or achieving mastery with different skills. So some reduction in the workload seems appropriate to me.”

There Was Too Much Work In Certain Classes

- “The core in my time (I graduated in '06) was a fire hose, in every class, as if each professor was afraid that this was the last moment I'd ever learn anything about Biology, or Chemistry, or whatever. (To be fair: they may have been right.) More time to breathe intellectually would have helped.”

- “I am in the graduating class of 2016 … as it has been discussed lately, there is a battle between professors to make their courses seem the most important, and so there is simply too much work … The breadth was right, but the depth went too far.”

- “It's important that the workload be relatively balanced across the core so that there isn't a time arms race among the faculty.”

Some Alumni Workload Observations

- “[O]ne of the most valuable lessons from HMC was how to prioritize and manage time. If the Core is set so that the majority of students have overhead for a number of extracurriculars, the outstanding students will be far less likely to learn about time management.”

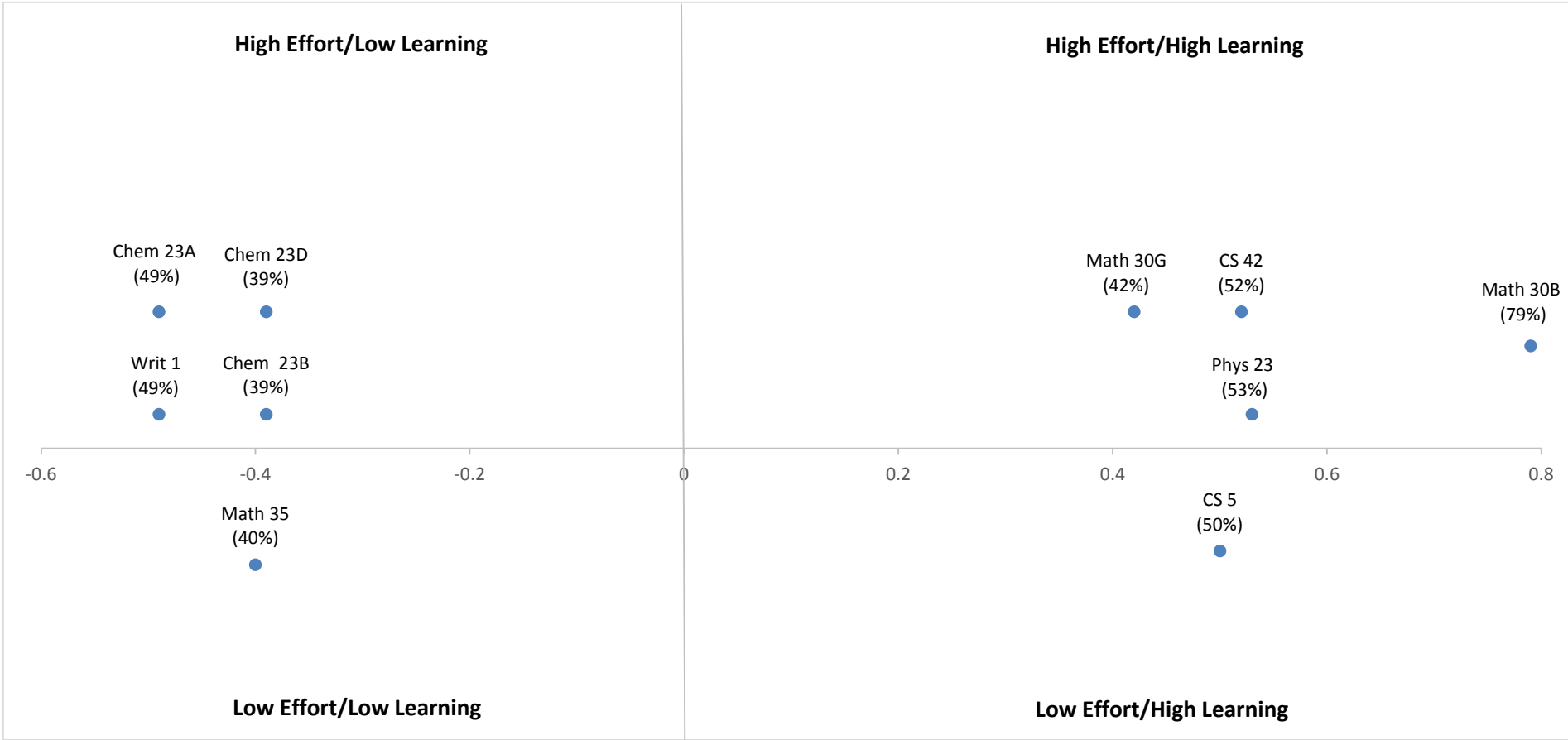
- “If even the top students don't have time for extracurriculars, then the workload is too high. Obviously that hasn't happened yet, because ASHMC still exists, dorm sports still exist, parties are still thrown, etc.”

Core at Other Institutions

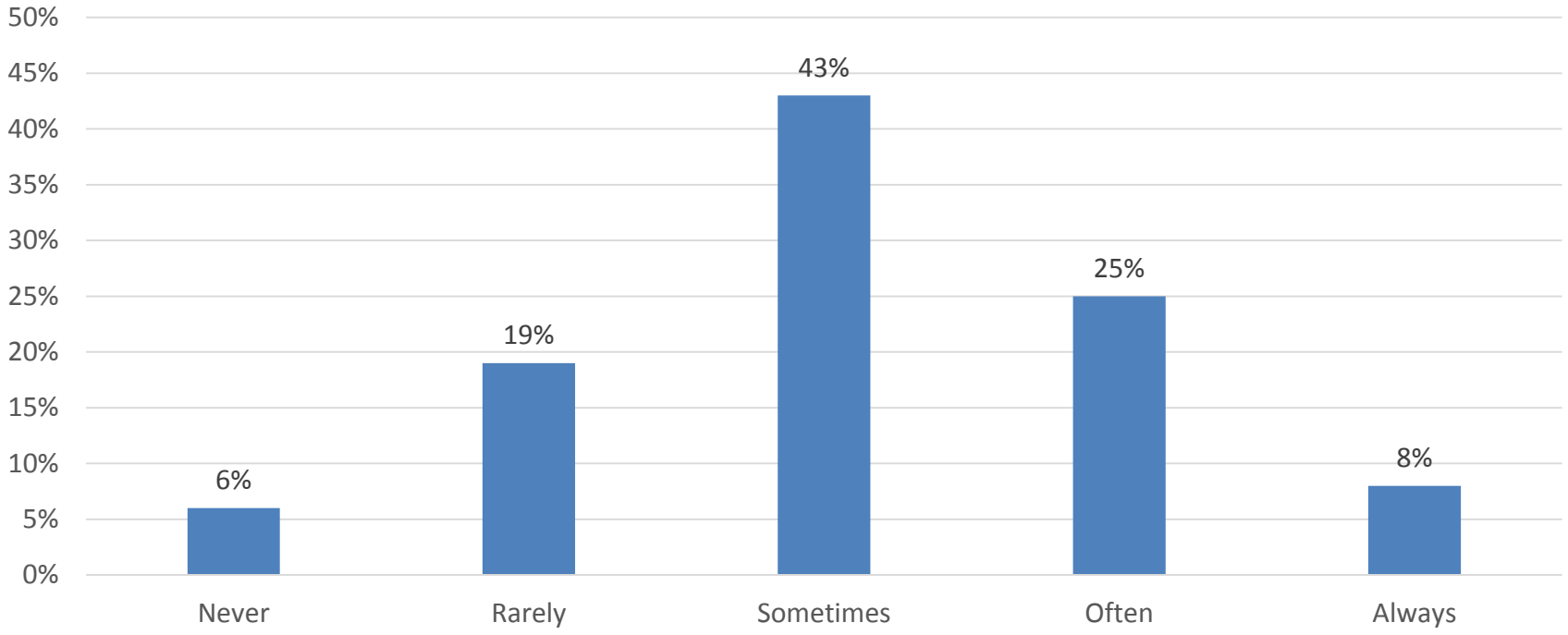
(number of academic years required of each subject)

	Math	Phys	Chem	Bio	Eng	CS	Labs	H.S.A.	Writing	Tech Elective	Total
Caltech (1 yr)	1.00	1.00	0.67	0.33	--	--	0.67	0.67	0.22	0.33	4.9
MIT (2 yrs)	1.00	1.00	0.50	0.50	--	--	0.50	1.00	--	1.00	5.5
HMC (1.5 yrs)	1.50	1.25	0.75	0.50	0.50	0.50	1.50	0.50	0.25	--	7.3

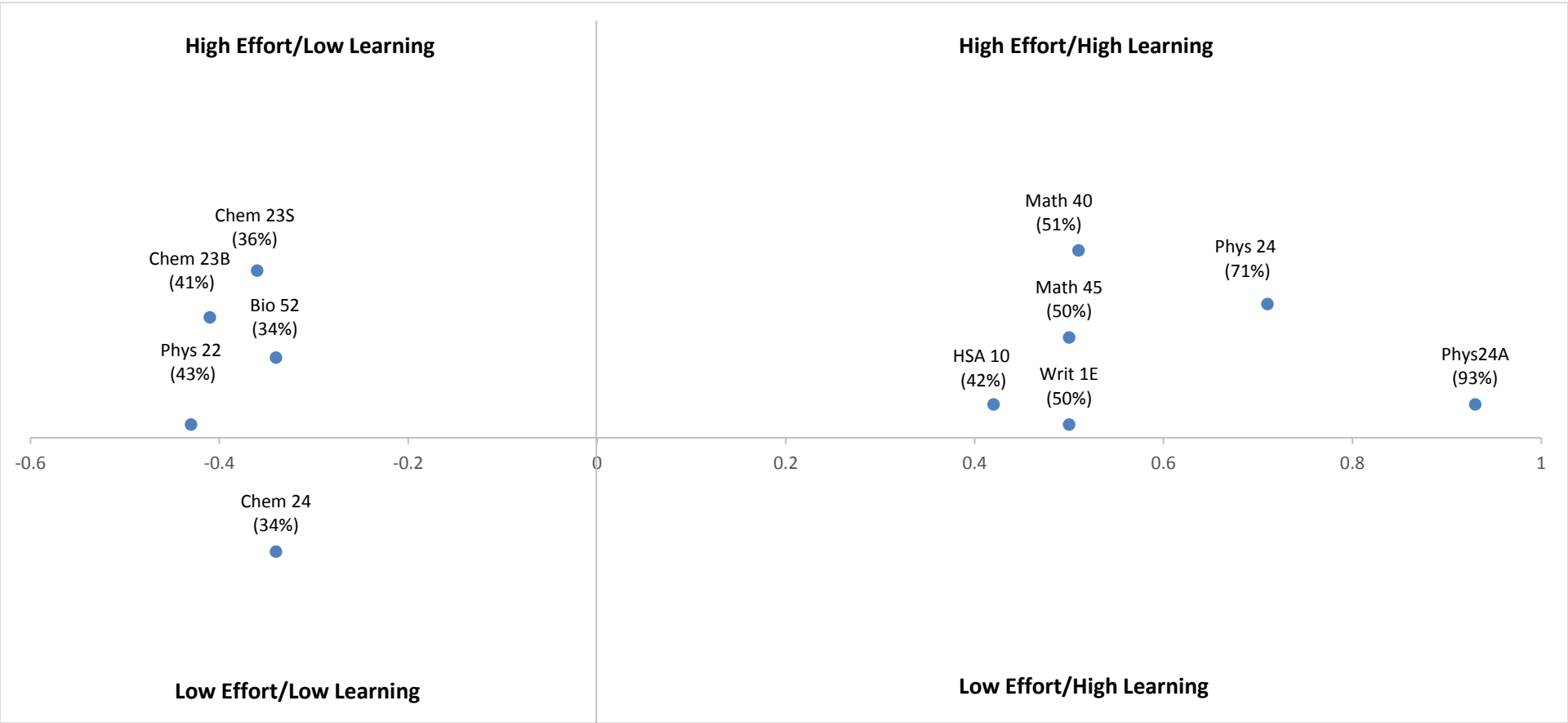
First Semester



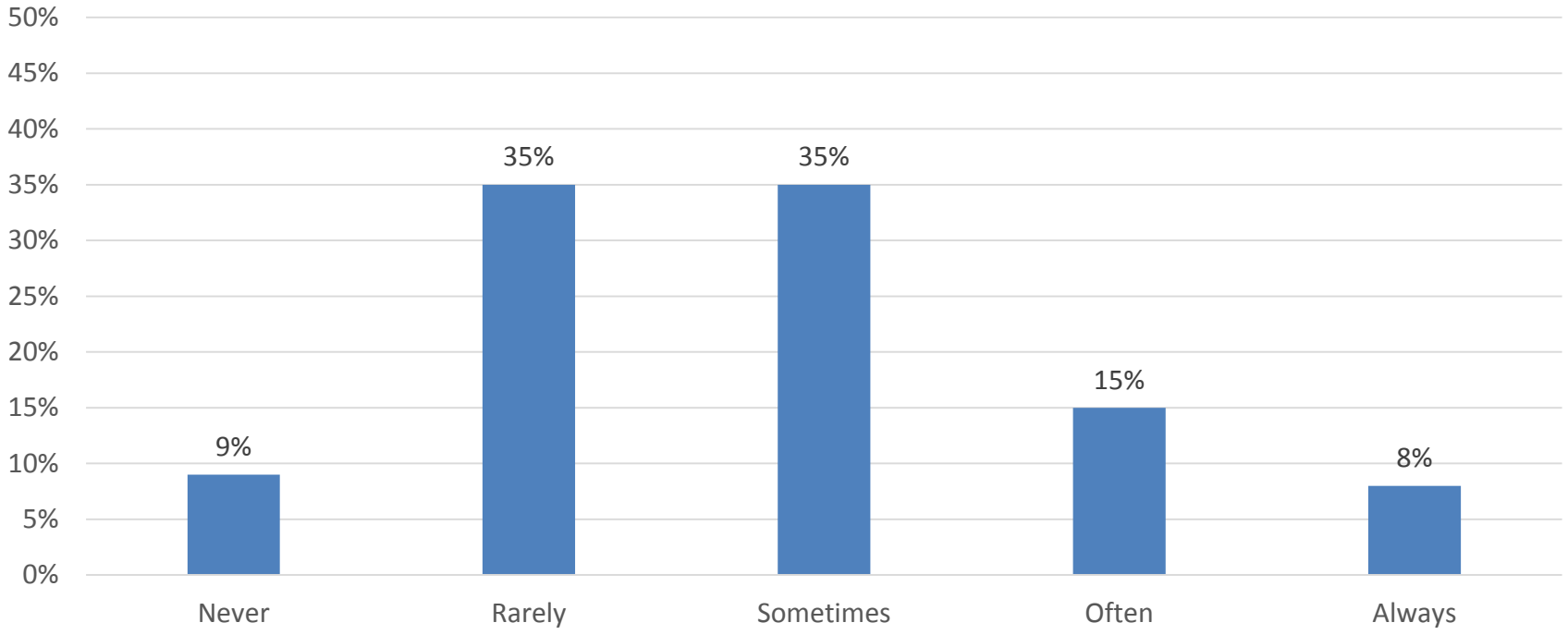
How often first semester did you have enough time to pursue interests outside of class and homework?



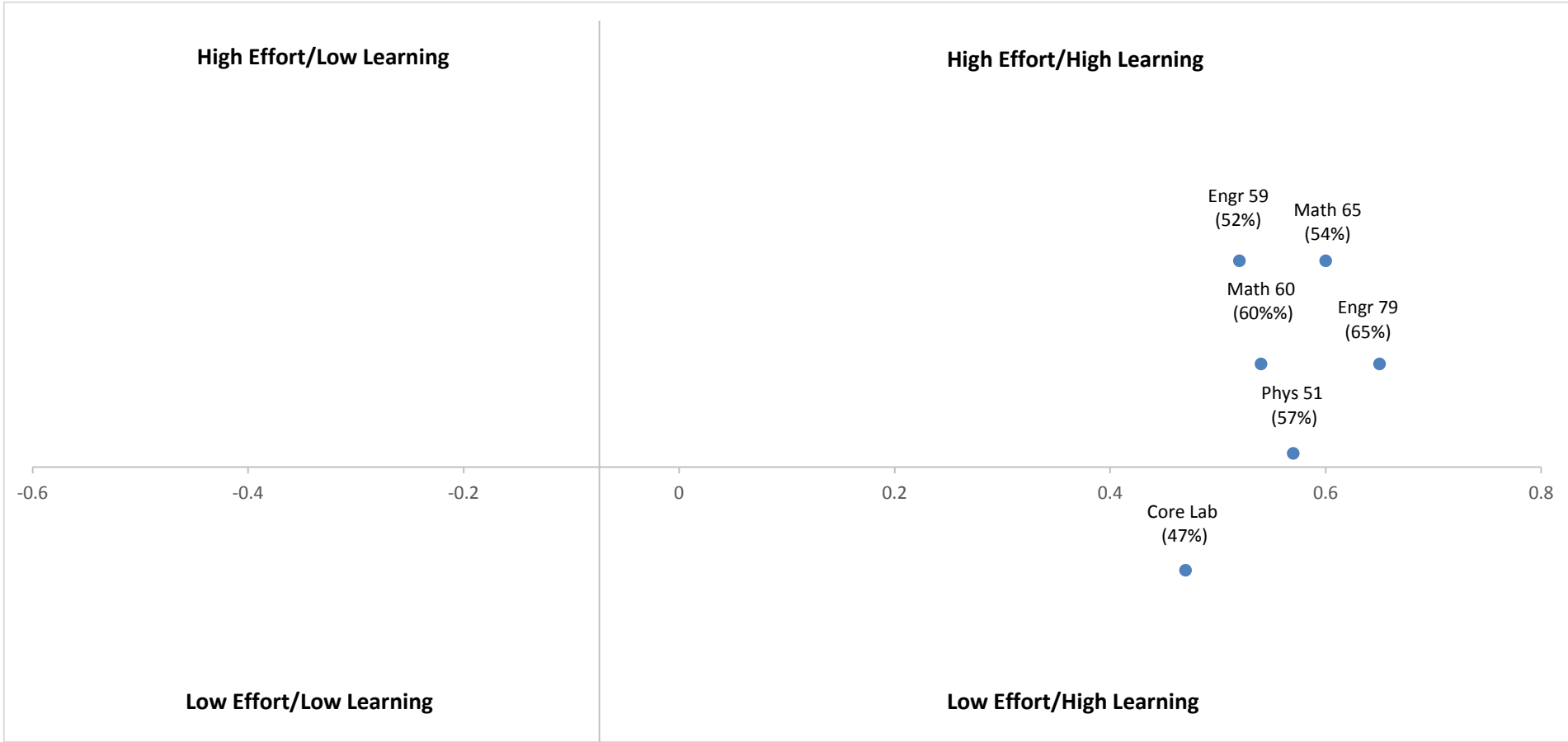
Second Semester



How often second semester did you have enough time to pursue interests outside of class and homework?



Third Semester



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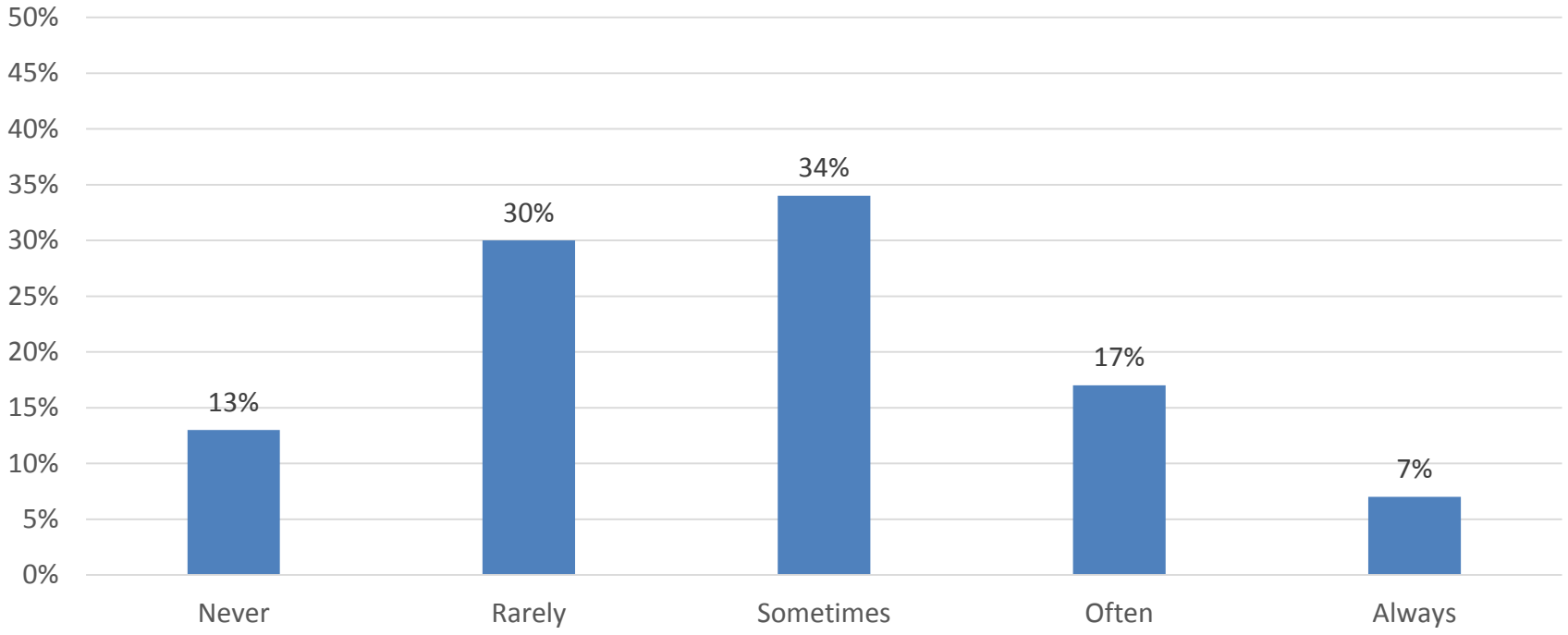

Discussion question:

- Should workload be a design principle for the core? If so, how might we regulate it across courses?