WHAT WE MUST AVOID

Incremental science at 8-12 billion dollars is not going to win. And it shouldn’t.
BEFORE WE JUMP INTO DETAILS

- The interim report Signature Science was *designed* with architecture A in mind

- Thus, simply filling in a matrix may do B a disservice

- That said, a checkbox in a matrix will almost *always* mean “can do, but at diminished (sometimes significantly) returns”

- In fewer cases: same returns, longer time

- In very few cases: luminosity functions give cliffs at ~4 meters, not 8 (e.g. UV bright QSOs?)
BEFORE WE JUMP INTO DETAILS

• We *must* do the DRMs for A and B, no matter which we cost, and we must do them on time (August 1)

• If possible, scale your codes appropriately to allow for late-game B changes

• How we write the narrative for B, and how we sell it depends critically on what we can do in ‘year 1’ without killing community science

• HabEx’s philosophy of ~25% time is deadly to a flagship mission at flagship costs.
REMEMBER: THIS CURVE DOESN’T CARE HOW BIG THE MIRROR IS, AND THAT CUTS BOTH WAYS
EXAMPLE OF "GOOD NEWS" FOR B

More Sources

Deeper Limits

SN per resel (1 hr per grating) vs. Wavelength (Å)

Number of Quasars vs. Redshift

FUV < 18
18 < FUV < 19
19 < FUV < 20
20 < FUV < 21
More Sources

G120M, G150M, G150M, G300M
LUVOIR 15 m, LUVOIR 9 m, 6.5 m, 4 m
EXAMPLE OF "BAD NEWS" FOR B
NOT GONNA HAPPEN WITH B