

Oceanography Budgets 101

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April 30, 2021

*(this seminar was given by zoom in April 2021 and
these annotations in red were added by Rick Keil in January 2023)*

Our budgets are really simple :-)

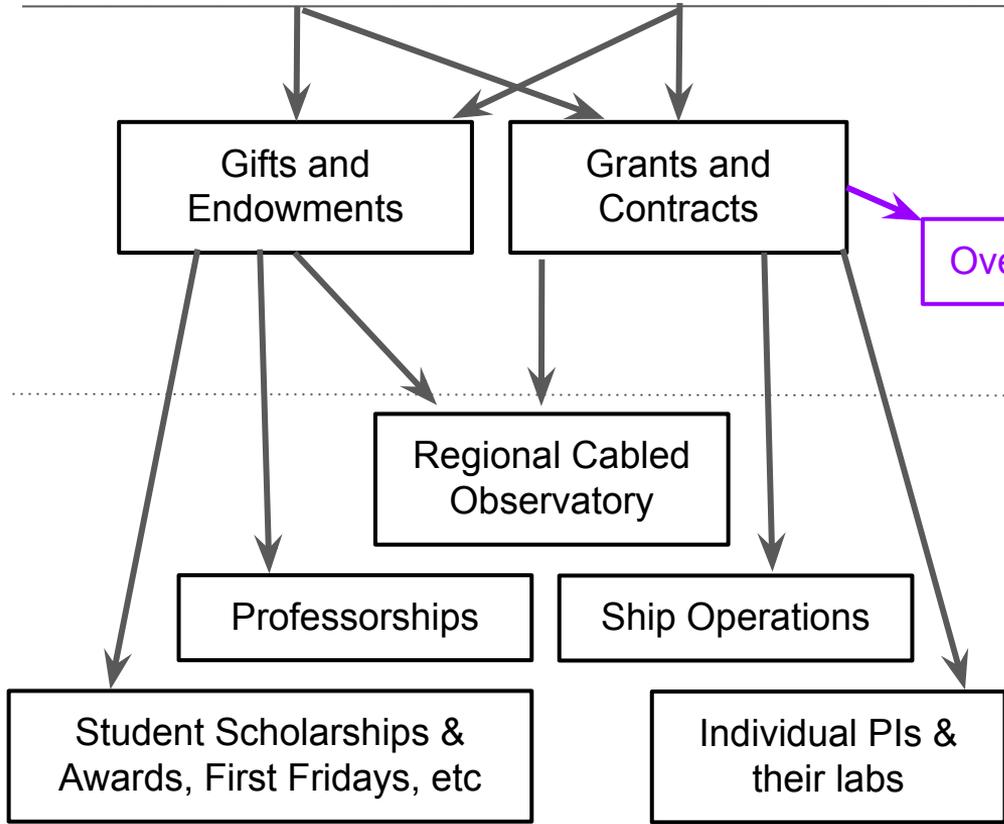
Sources of \$ to UW Oceanography

Private Foundations & Individuals

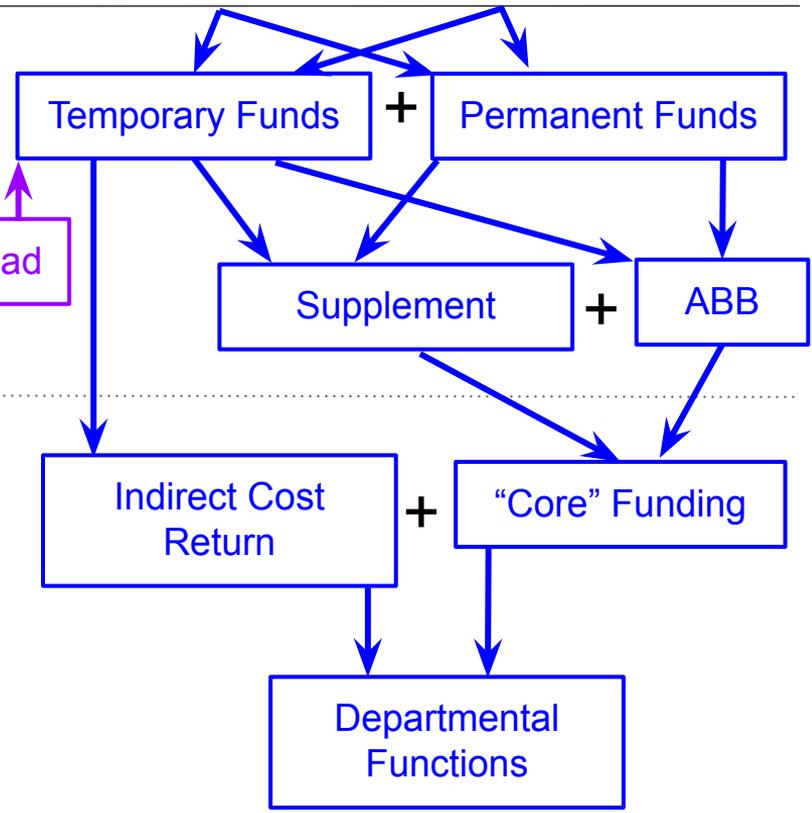
Federal Agencies

State of Washington

Tuition & Fees



"Pass Through"



Departmental Budget

Gifts and Endowments will be covered in 2 weeks

(Melinda Seevers gave a special seminar on this two weeks later, and Stephanie Harrington had previously given a seminar on UW and college budgets)

Grants and Contracts

To get an overview of where we are, let's

- Look at where we stand within the college and the UW proper
- How we spend it
- The “overhead”
Indirect Cost Return (ICR)
we generate



Grants and Contracts

- Monies raised in a given year and our ranking within the college

College and Department	Award Count	Amount Awarded	% of Award
College of the Environment			
Dean's Office	2	182,287	0.01%
Aquatic and Fishery Sciences	71	10,400,704	0.66%
Atmospheric Sciences	74	11,036,569	0.70%
Earth and Space Sciences	54	12,139,523	0.77%
EarthLab	28	3,392,222	0.21%
Environmental and Forest Sciences	95	6,813,687	0.43%
Friday Harbor Laboratories	5	1,183,588	0.07%
Joint Institute for the Study of the Atmosphere and Ocean	58	29,078,163	1.84%
Marine and Environmental Affairs	1	5,000	0.00%
Oceanography	66	31,292,796	1.98%
Washington Sea Grant	23	5,505,300	0.35%
Total	477	111,029,838	7.03%

Grants and Contracts

- Our ranking within the UW (excepting the Medical School & Public Health)

Unit	Grants	Amount (\$M)	% non-med research*	% overall
APL	238	63.3	10.03	4.01
Computer Sciences	133	38.7	6.13	2.45
Oceanography	66	31.3	4.95	1.98
CICOES	58	29.1	4.60	1.84
Chemistry	95	25.6	4.05	1.62
Physics	165	21.7	3.45	1.38
Electrical Eng	98	21.1	3.33	1.33
Civil & Environmental Eng	111	19.7	3.13	1.25
Education	39	18.9	3.00	1.2
Biology	54	8.5	1.35	0.54

* excludes Medicine and Public Health

Grants and Contracts

Some Stats about how we make it and how we spend it

- Distribution of incoming funding is roughly
 - 50% NSF
 - 25% ONR
 - 25% Foundations
- 325 people employed in our school (including temp employees)
 - 2nd largest in college (after Forestry)
- We use our **research** monies for:
 - 55% Salaries
 - 30% Supplies
 - 10% Grad Tuition
 - 5% Equipment

Grants and Contracts

How much Indirect Costs are generated and where do they go?

On average, the School's Grants and contracts generate

- \$3.5M total
- Divided up as so:
65% to UW proper / 8.75% to dean's office / 26.25% to SoO*
- UW / Provost recover \$2.25M each year
- Dean's office takes only \$310k
- School recovers \$900k

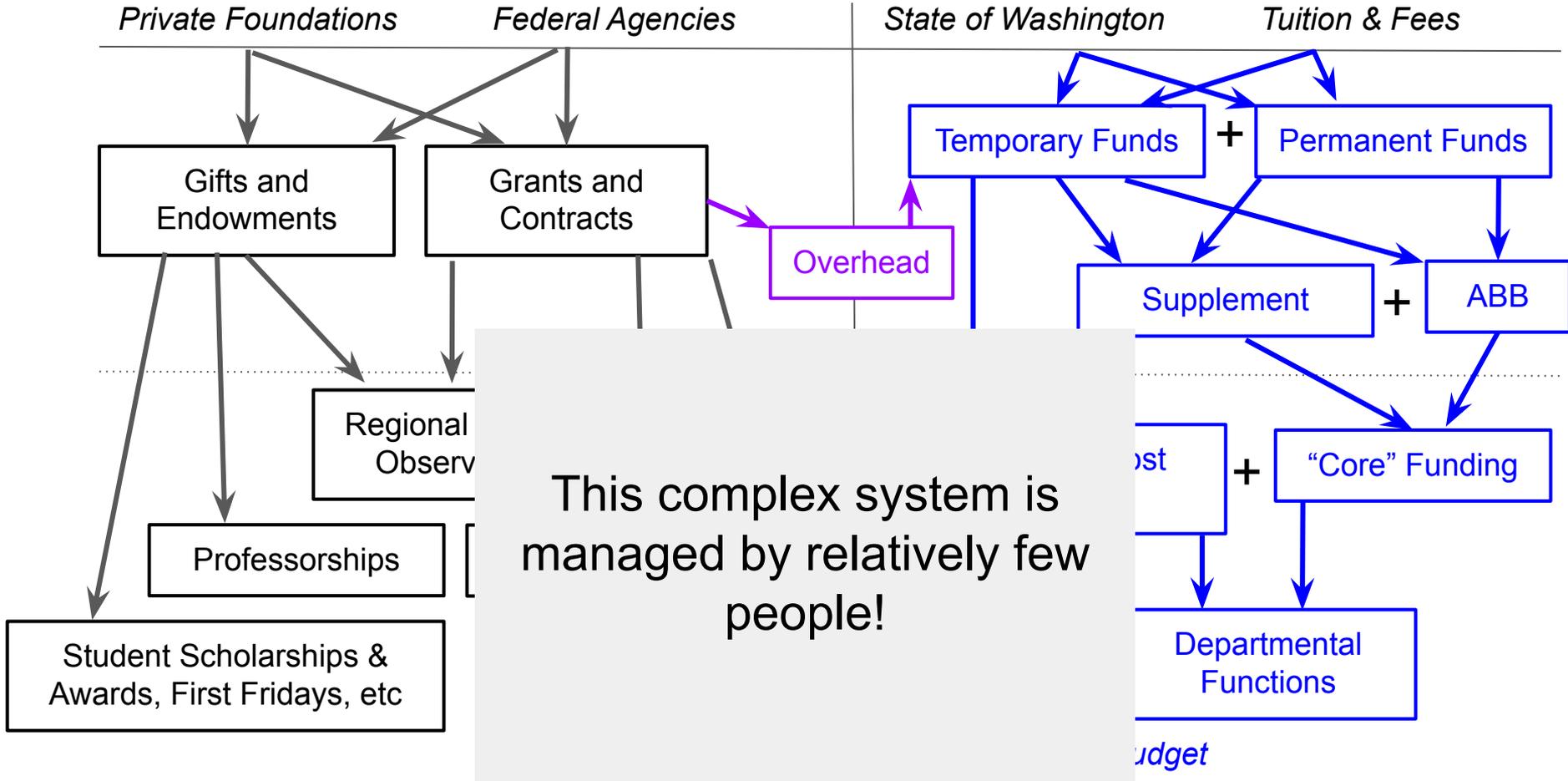
*Overhead absorbed into the Provost's budget is redistributed to support groups like OSP, GCA, EH&S, IUCUC, the UW Libraries, etc.

Grants and Contracts

How do we compare to some peers?

	Grants	Gifts	Endowment Payout
SCRIPPS	\$214M	\$13M	\$2.3M
WHOI	\$199M	\$11M	\$14M
OSU COEAS	\$161M	?	??
UW CoEnv	\$111M	?	\$4.4M
U Miami Environment	\$92M	?	?
Oregon State U Oceans-only	\$41M	?	?
U Miami Rosensteil	\$40M	?	?
UW Oceanography	\$31.3M	\$1M	\$0.35M
URI Grad School of Ocean	\$10.5M	?	?

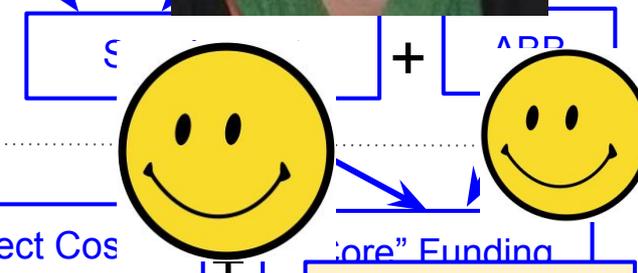
Sources of \$ in our School



Private Fo



Kittie
Vivian
Shannon
Romeo
Laurie
Su
Meegan
Lien
Mike



snips

Snip Operations

Individual PIs

"Pass Through"



Chanthy
Brian
Robert

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Depart

Our Operating Budget

- Operates on a biennium (2-year budgets but adjustments can happen any time)
 - **The previous biennium closed June 30th 2021**
- Not completely independent of our Pass Through Budgets
 - ICR is about 20% of our departmental budget
- Fluctuates year to year, but is more-or-less steady and semi-predictable
- Has multiple layers above us that we won't really dive into today
(Stephanie covered in her seminar)
 - GOF, DOF, State line items, etc
 - Tuition / State coverage is roughly 62 / 38% of an “average” undergrad's education

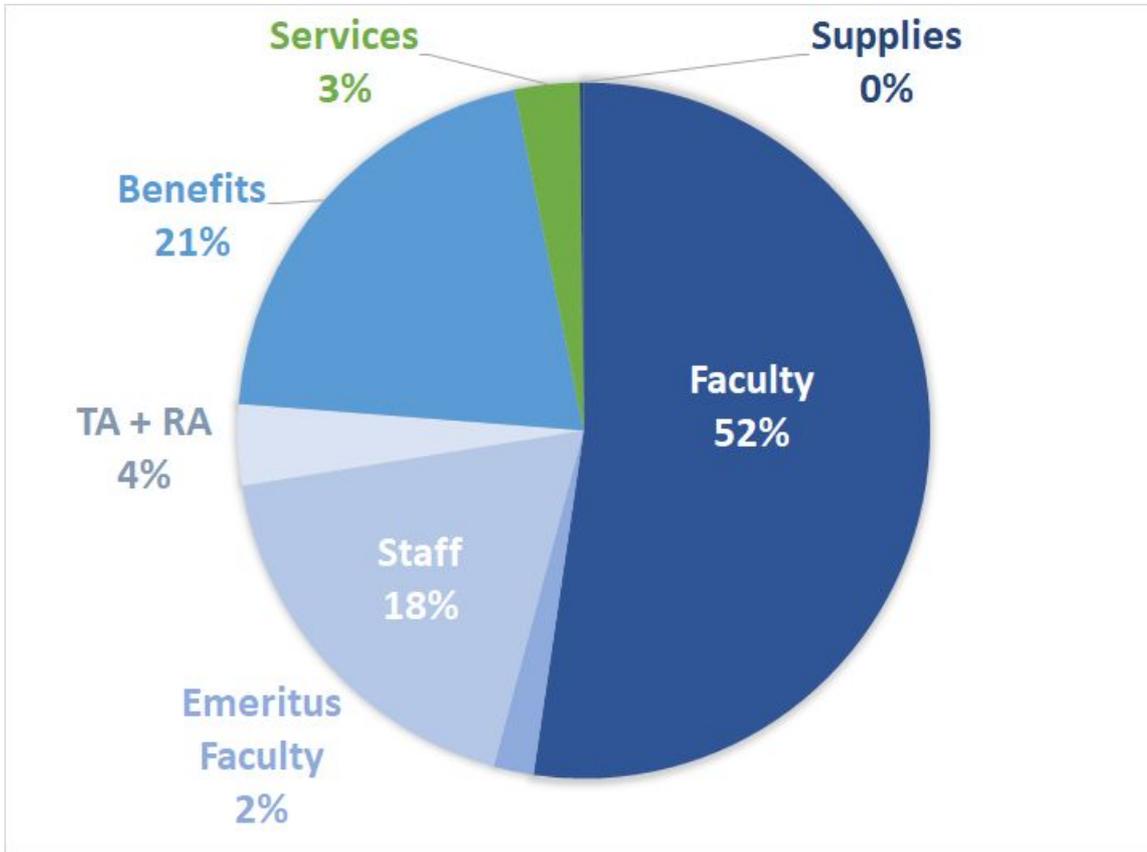
General Numbers and Stats

- General State Budget for the School per biennium: *\$10M (e.g. \$5M/year)*
- Average ICR for the School per biennium: *\$1.8M (e.g. \$0.9M/year)*
- *(this excludes ship operations, which are budgeted separately at the School level)*

How we “earn” the money

- ABB revenue (teaching, mostly at undergrad level; money goes to college level and is then distributed)
 - UG SCH = \$194
 - UG graduation = \$6464 per degree
 - Grad SCH = \$177
 - Grad degree enrolled = \$1511 per student per year
- Supplement
 - Calculated using a Provost-provided formula, basically set to help us and UW break even
- ICR
 - Returned to us based on grants and contracts
 - 65% to UW proper / 8.75% to dean's office / 26.25% to SoO
 - ICR Stats:
 - We contribute \$3M in overhead to UW each year
 - We recover an additional \$900k for our own use each year

Spending



- During the 20-21 Biennium we spent ~\$12M
- 96.8% is spent on salaries and benefits
- 3% on mandatory services (building fire permits, tech fees, etc)
- 0.2% on supplies

How to Improve our Budget

There are three main valves we can turn, each with its own “rate of change” and impact on the system:

- **Eliminate faculty, staff & TA positions**
 - Requirements: remaining faculty, staff and students will have to do more
- **Increase research income, trickle down into our ICR**
 - Requirements: time to write proposals, run labs, publish papers, etc
- **Increase our teaching revenue**
 - Requirements: more “butts in seats”, more classes that “turn a profit”, fewer boutique offerings that lose extraordinary amounts of money



How to Improve our Budget

When do we turn these valves?

- **Eliminate faculty, staff & TA positions**
 - Usually only when we are forced
 - When staff retire and positions are realigned
- **Increase research income, trickle down into our ICR**
 - Generally speaking we are always improving in this area, but note these special things:
 - Ship Operations
 - Regional Cabled Observatory
 - Private Foundations
- **Increase our teaching revenue**
 - Re-scoping our undergrad major resulted in a small boost in ABB revenue, but we are currently not on an upward track



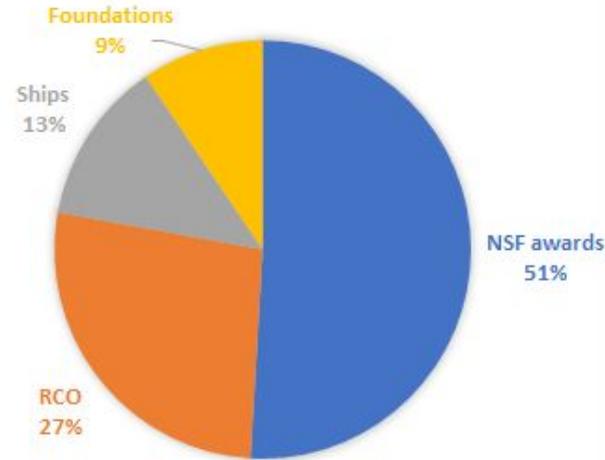
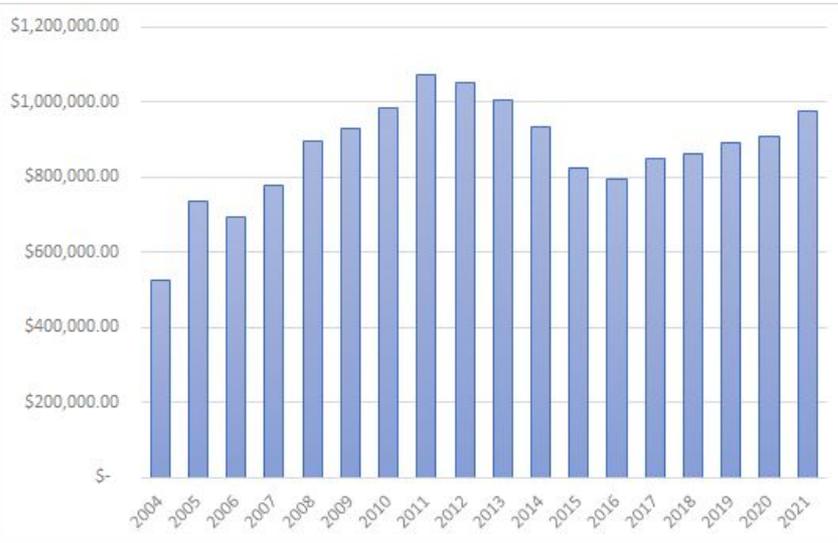
How to Improve our Budget

- Eliminate faculty, staff & TA positions
 - Each TA is currently \$17k after overhead and tuition, we run with 5-7 more than we used did 10 years ago = \$100k
 - Eliminating one faculty FTE = \$110k
 - Eliminating one staff member = \$100k



How to Improve our Budget

- Increase research income, trickle down into our ICR



How to Improve our Budget

Increase our teaching revenue

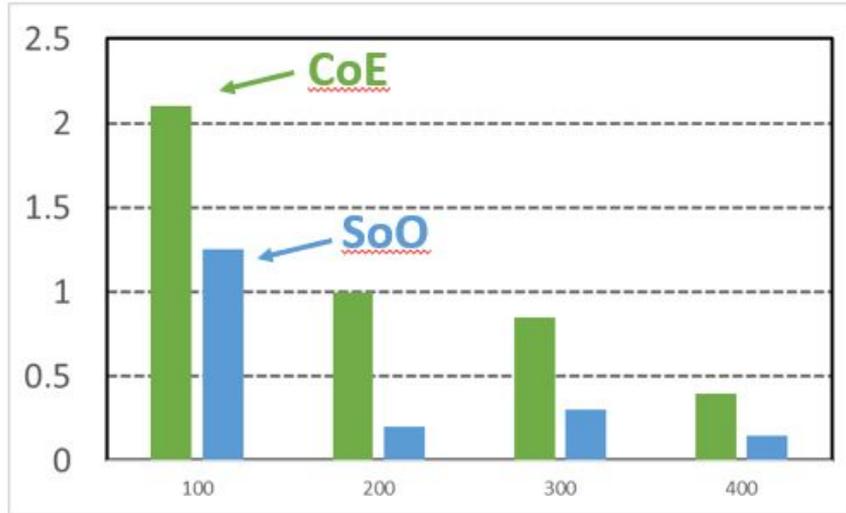
- Activities-based Budgeting (ABB) is currently only implemented by counting four things and giving money to colleges for each thing. (SCH = Student Credit Hour)*
 - Undergrad SCH: \$194/SCH (80% of undergrad revenue)
 - Undergrad diplomas: \$6464/graduate (20%)
 - Grad SCH \$177/SCH
 - Grad students \$1511/year enrolled

* this is a massive oversimplification



How to Improve our Budget

If education is the only thing that matters (butts in seats) then the School of Oceanography is underperforming because the money given to us by UW exceeds the amount we generate from student credit hour generation.



$$\text{ROI} = (\text{salary} + \text{benes}) / \text{sch generated}$$

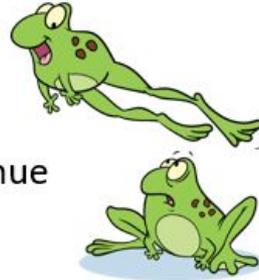
How to Improve our Budget

What would it take to leap up?

College Avg: 45%

QSci	449%
PoE	229%
MB	129%
ESS	96%
SEFS	71%
Atmos	64%
SMEA	37%
SAFS	33%
Ocean	29%
FHL	29%

We need to generate
\$450k in teaching revenue



\$100k is equal to:

- 100-level class, 100 students, 5 cr
- 15 more undergrad graduates/yr
- 15 more majors (given classes they take in a typical year)

Therefore: to leapfrog we need

- **1 gateway class of 150 students**
- **25 more majors**
- **(or any other combo)**



Jan 23: we have accomplished this task and jumped up by 2000 SCH (jumped over SAFS and SMEA). Our plan will likely bring us up another 2000 sch within the next two years

Summary

- The School of Oceanography manages \$60+M each biennium
 - \$50M in “Pass Through”
 - \$12M in Departmental Funds (*not including ship operations*)
- We are one of the largest research units on campus
 - Hard to compare us to other institutions because our structure is so different
- Our budgets are complex & have little flex in them
 - Vast majority of spending is on salary
 - We are dependent on ICR for >20% of the department’s budget
- Growth Areas include:
 - better/more teaching (helps in many ways including raising ABB revenue)
 - Growing our research program even larger

Let's open it up for questions