Budgeting and managing effort on NIH grants

Pre-Award Administration Series
Office of Grant & Contract Administration (OGCA)
Effort and the messenger

It is very important that faculty and staff know about effort and effort reporting, particularly with respect to federally sponsored projects.

Today we will look at this from the NIH lens. But first, some background…
Effort and the OIG

From 2006 to 2010, the Office of Inspector General at the National Science Foundation conducted 16 audits of effort reporting systems at major research universities. The most common problems found in these audits are:

- Failure to adequately account for unfunded effort and voluntary uncommitted cost sharing
- Policies and procedures do not reflect grants management regulations and requirements
- Effort committed in grant proposal not charged to the grant
Audits from 2003 to 2008

Federal agencies have stepped up auditing of effort reporting (and other items) on federal grants. Data remains consistent from 2008 to current.

- 2008: multiple including UCSD, UIUC, UCSF, GATech
- 2007: (9) CalTech, Vanderbilt, Georgia State, UMBC
- 2006: (19) Yale, Chicago, Columbia, Berkeley, Penn
- 2005: (13) Dartmouth, Cornell, Mayo Clinic, UMass
- 2004: (7) Harvard, Johns Hopkins, U Washington
- 2003: (2) Northwestern
Resolutions & fines

- 2008  $7.6M  Yale – effort reporting
- 2006  $2.5M  UConn – service centers
- 2005  $4.4M  Cornell – funded non-research staff
- 2005  $6.5M  Mayo Clinic – improper cost transfers
- 2005  $11.5M  Florida International – improper cost transfers
- 2004  $2.4M  Harvard – billing for unrelated salaries
- 2004  $2.6M  Johns Hopkins – faculty effort reporting
- 2003  $5.5M  Northwestern – faculty effort reporting
More outcomes

- these audits can be time-consuming, costly, and “unpleasant”, e.g., Yale: 1.5 year-long audit, covering 6,000 federal grants 1/00 – 12/06
- $7.6M settlement: $3.8M in actual damages; $3.8M in penalties
- > 1 million pages of documentation submitted to investigators
- FBI agents visit/question faculty, staff at home and on vacation
- subpoenas served on 47 grants from 13 departments
The mundane life span of an NIH application and grant – budgeting effort

- Faculty Salaries
  - Academic (AY)
  - Summer (2.5 months max)
- Faculty should consult with their department chairs to determine maximum effort available for dedication to research projects. Personnel effort on all ACTIVE awards plus teaching load and other commitments cannot exceed 100%. In other words, committed academic year research effort (up to the maximum percentage allotted for research by your department during the academic year) + Teaching load + other obligations = 100%
Budgeting effort continued

- Normally faculty will be allowed to allocate up to a maximum of ~ 4.5 Academic months and 2.5 Summer months across their sponsored projects portfolio in any given year.

- Effort charged to sponsored projects must be allocable, allowable, reasonable, and consistently reported and tracked in the UMass effort reporting system – ECRT – more on that later…..
Budgeting effort continued

- PI determines effort needed on the project
- Budgeted effort will reflect the best estimate of the actual effort required to meet project goals
- If summer effort anticipated, budget accordingly (2.5 month max).....there are exceptions and a policy to handle the rare exception.....
- Budgeting academic effort is not mandatory, but if effort is significant, course buy-outs should be explored and effort budgeted as academic effort
Budgeting effort continued

A question at this point will sometimes arise in regard to academic effort. The scenario runs like this:

- PI has budgeted summer effort
- The budget is maxed out and cannot accommodate budgeting academic salary
- PI has heard from NIH peer review committees that contributed effort is valued
- PI wants to cost-share academic effort
Budgeting effort continued

- Since NIH does not require cost-share, it is thus considered “voluntary cost-sharing”

- UMass strongly discourages “voluntary cost-sharing” – what to do?
PI quandary: “My contract as a tenure track faculty for my 9 month academic appointment clearly states that I should devote a significant amount of my academic time to seek external funding and establish a strong research program. This clearly implies that a substantial part of my effort should be dedicated to research as part of my 9 month salary. Can I state this effort in a grant proposal?” …… So again, what to do?

http://www.umass.edu/research/system/files/FAQ_Cost_Share.pdf
Budgeting effort continued - (from Cost Share FAQ)

**Answer:** How the commitment is worded will determine the allowability. You cannot directly commit quantifiable effort to any given project unless you are requesting the salary for effort from the sponsor or meeting mandatory cost share requirements. That does not mean that you cannot perform research activities that relates to a sponsored award. See examples of acceptable and unacceptable statements of uncompensated academic year effort.
Budgeting effort continued - (from Cost Share FAQ)

Example 1 - **Acceptable** budget narrative statement:

“Summer salary is requested for 2.4 months of time to conduct studies on……The PI will be fully involved in the project throughout the year to ensure that the scope and objectives are met.”
Budgeting effort continued  - (from Cost Share FAQ)

Example 2 - Unacceptable effort statement:

“Summer salary is requested for 2.4 months of time to conduct studies on....In addition, PI will devote a significant portion of academic year effort as part of their normal 9 month appointment research responsibilities.”
Budgeting effort continued - (from Cost Share FAQ)

Example 3 - Unacceptable effort statement:

“Summer salary is requested for 2.4 months of time to conduct studies on....In addition, PI will devote 1 month of academic year effort as part of their normal 9 month appointment research responsibilities.”
The question will still linger and a PI may continue to pursue voluntary cost-sharing of effort:

“Why will the University not allow me to show voluntary cost share? To be competitive I have to show that I am a good bargain, cost less on my grant and will provide resources to the project so that I have a better chance of receiving funding.”
Budgeting effort continued - (from Cost Share FAQ)

**Answer:** Some Federal Agencies prohibit the inclusion of voluntary cost share to level the playing field for all types of applicants in order to address a perceived unfair competitive advantage that larger institutions might have. The restriction of the utilization of non-mandatory cost share has been expanded and will now apply to all federal agencies as of 12/31/14 as governed by the new OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR, Chapter I, Chapter II, part 20; The Uniform Guidance) which replaces OMB Circular A-21.
This does not mean that investigators should not devote effort to projects that do not supply salary, nor does it mean that the University should not contribute resources toward the project. If there is no mandatory cost share requirement, as noted above, PIs should instead describe their participation in terms that do not commit the institution to a specific percentage of effort or to specific amounts of other non-salary expenses.
Back to actual budgeting of effort

• NIH requires that effort be proposed in person-months not as a % of effort. Effort can be charged as AY, Summer, or CY depending on appointment type.

• Depending on the type of application (Modular or Detailed budget) effort will be accounted for in the “Personnel Justification” for the former and the Budget & Budget Justification for the latter. See examples of the full budget and the Personnel Justification for the modular format affectionately known as the “PJ”
**NIH Effort**

### RESEARCH & RELATED BUDGET - SECTION A & B, BUDGET PERIOD 4

**A. Senior/Key Person**

<table>
<thead>
<tr>
<th>Prefix</th>
<th>First Name</th>
<th>Middle Name</th>
<th>Last Name</th>
<th>Project Role</th>
<th>Base Salary ($)</th>
<th>Cal. Months</th>
<th>Acad. Months</th>
<th>Sum. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms.</td>
<td>Jennifer</td>
<td>B.</td>
<td>Dier</td>
<td>PD/PI</td>
<td>54,000.00</td>
<td>1.80</td>
<td>2.00</td>
<td></td>
<td>12,000.00</td>
<td>374.00</td>
<td>12,374.00</td>
</tr>
<tr>
<td>Ms.</td>
<td>Leanne</td>
<td></td>
<td>Evey</td>
<td>Faculty</td>
<td>97,484.00</td>
<td></td>
<td>1.00</td>
<td></td>
<td>9,748.00</td>
<td>229.00</td>
<td>9,977.00</td>
</tr>
<tr>
<td>Ms.</td>
<td>Jennifer</td>
<td>A.</td>
<td>Donais</td>
<td>Faculty</td>
<td>90,000.00</td>
<td>0.90</td>
<td></td>
<td></td>
<td>81,000.00</td>
<td>0.00</td>
<td>81,000.00</td>
</tr>
</tbody>
</table>

9. Total funds requested for all senior/key persons in the attached file: **22,358.00**

**B. Other Personnel**

<table>
<thead>
<tr>
<th>Number of Personnel</th>
<th>Project Role</th>
<th>Cal. Months</th>
<th>Acad. Months</th>
<th>Sum. Months</th>
<th>Requested Salary ($)</th>
<th>Fringe Benefits ($)</th>
<th>Funds Requested ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Post Doctoral Associates</td>
<td>12.00</td>
<td></td>
<td></td>
<td>40,427.00</td>
<td>11,546.09</td>
<td>52,973.00</td>
</tr>
<tr>
<td>2</td>
<td>Graduate Students</td>
<td>24.00</td>
<td></td>
<td></td>
<td>54,000.00</td>
<td>11,981.09</td>
<td>55,981.09</td>
</tr>
<tr>
<td>0</td>
<td>Undergraduate Students</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0</td>
<td>Secretarial/Clerical</td>
<td>0.00</td>
<td></td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1</td>
<td>Cell Culture Technician</td>
<td>12.00</td>
<td></td>
<td></td>
<td>96,344.00</td>
<td>12,952.09</td>
<td>109,296.09</td>
</tr>
</tbody>
</table>

Total number of other personnel: **Total other personnel: 171,697.09**

Total Salary, Wages and Fringe Benefits (A+B): **164,627.69**
Personnel Justification (modular) - PJ

Personnel Justification

Marguerite Hernandez, Ph.D., Principal Investigator, (1.8 months academic; 1.5 months summer) will direct all aspects of the proposed research, as well as coordinating design, interpretation, and integration of results from the project’s personnel and other significant contributors.

John Deere, Ph.D., Faculty Collaborator, (0.10 months academic) will provide interdepartmental statistical consultation on the project.

Joanne Doe, Ph.D., Postdoctoral Research Associate, (12.0 months calendar) will design and carry out several molecular biological and biophysical experiments. She will implement segmental labeling as part of Aim 1.

(If awarded, this effort must be charged and reported….hold that thought about the RPPR, and ECRT…..)
Personnel Justification (modular) - PJ

Keep in mind that when a modular budget is submitted, an in-house budget undergirds it thereby demonstrating to the NIH and auditors that all costs are “RAA” and it of course further demonstrates the institution’s RAA-RAA attitude toward the cost principles:

*Go, Go U, Go UMass, Go UMass…*

- **Reasonable**
- **Allowable**
- **Allocable**
So the budgeted effort within the internal budget gets carried forward and listed on the PJ. When submitted to the NIH, this effort level becomes the basis upon which the award is made. The NIH expects the PI to commit this effort going forward.

**Spoiler alert:** this effort will need to be obligated and spent, reported in the RPPR and tracked in the ECRT system exactly* as proposed.
NIH Effort - special notes

• NIH is somewhat unique among sponsors in that it requests information on the effort commitments of Key Personnel on 3 separate occasions;
  • Initially, in the proposal budget/Personnel Justification
  • Prior to award, on a Just in Time (JIT) basis via the Other Support document.*
  • Post-award, on an annual basis via the Key Personnel Report portion of the yearly progress report.

* the Other Support document must list all active awards and pending proposals including the effort dedicated to each and parsed between Academic and Summer effort
Request for Just-in-Time (JIT)

So NIH likes the proposal...
JIT continued

…and sends the PI a request for JIT documentation but warns…

“This is not a notice of grant award nor should it be construed as an indicator of possible award.”

“This is a standard notice and request for information from all principal investigators with grant applications receiving an impact score of 40 or less…This notice is a request for Just-In-Time Information. NIH Institutes and Centers (ICs) have varying pay lines and funding strategies that determine which grants will be funded.”
JIT and “Other Support” aka “OS”

Primary JIT obligation: “Other Support”

- Provides a listing of current and pending grants for all key personnel listed in the grant application.

- The OS lists level of effort (in person months) for all current and pending grants. This effort reflects the sponsor approved budgets for awards and the proposed level of effort for proposals.
### Chloride and Sodium Transport in Airway Epithelial Cells

The major goals of this project are to define the biochemistry of chloride and sodium transport in airway epithelial cells and clone the gene(s) involved in transport.

<table>
<thead>
<tr>
<th>Project Code</th>
<th>Start Date</th>
<th>End Date</th>
<th>Funding</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 R01 HL 00000-13 (Anderson)</td>
<td>3/1/2010</td>
<td>2/28/12</td>
<td>NIH/NHLBI</td>
<td>$186,529</td>
</tr>
<tr>
<td>5 R01 HL 00000-07 (Baker)</td>
<td>4/1/2012</td>
<td>3/31/14</td>
<td>NIH/NHLBI</td>
<td>$122,717</td>
</tr>
</tbody>
</table>

### Ion Transport in Lungs

The major goal of this project is to study chloride and sodium transport in normal and diseased lungs.
NIH issues an award

It’s party time!
Budget set up

Regardless of whether or not the proposal was submitted under either the Modular or non-Modular format, the internal budget gets uploaded for use by the Controller’s Office as the official budget.

The budgeted effort gets loaded and from then on, the following aphorism is the law:

**Effort reported = effort charged to the grant**
Don’t fear the RPPR

10.5 months go by and it’s time to submit the annual Research Performance Progress Report (RPPR).

The RPPR is the driver for this presentation, all things considered…..and sometimes it is actually feared by administrators and PI’s alike…. 
RPPR – effort report

Among other items, the RPPR includes a reporting of effort committed by the PI and all paid personnel who’s effort exceeds one month of salaried effort.

At this juncture, the PI and their Business Manager, are reminded of the aforementioned aphorism:

Effort reported = effort charged to the grant
RPPR – effort report

Excerpt from the personnel effort report:

<table>
<thead>
<tr>
<th>Commons ID</th>
<th>S/R</th>
<th>Name</th>
<th>SSN</th>
<th>DOB</th>
<th>Degree(s)</th>
<th>Role</th>
<th>Cal</th>
<th>Aca</th>
<th>Sum</th>
<th>Foreign Org</th>
<th>Country</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWE6721</td>
<td>Y</td>
<td>Weh-Wilson, Lita M.</td>
<td>04/1969</td>
<td>OTH, B.A., D.O.T., P.H.D</td>
<td>PD/PI</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDOMBROWSKI</td>
<td>Y</td>
<td>Dombrowski, Kirk</td>
<td>03/1967</td>
<td>BA, MA, P.H.D</td>
<td>PD/PI</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHILLMAN</td>
<td>N</td>
<td>Heitman, Alexander</td>
<td></td>
<td>Graduate Student (research assistant)</td>
<td></td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Ratog, Susan</td>
<td></td>
<td>Non-Student Research Assistant</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Don’t fear the RPPR continued

Okay, well, don’t fear the RPPR but respect it

At this juncture, be sure not to be in the unenviable position of not charging PI or other key person effort to the grant and instead at the selfless instructions of the PI said salary/effort was rebudgeted to other items like Graduate Research Assistant salaries. Admirable selflessness aside, recall the aphorism:

Effort reported = effort charged to the grant
Summary

- Effort must reflect the original effort as proposed to the NIH*

- Effort cannot be reported to the NIH unless it is charged to the grant.

- Effort charged to the grant and reflecting the original proposal is then certified in the ECRT system
* NIH provides some flexibility around reducing effort without requiring their prior approval – cannot exceed 25% or greater reduction.

Any change in effort 25% or greater requires NIH prior approval. This means prior to the filing of the RPPR.
ECRT

“It is extremely important to understand that effort is not calculated on a 40-hour workweek or any other standard workweek. Effort reports must account for all effort for which the campus compensates the individual and, as such, should equal 100%.”

The challenge: effort is loaded in all budgets by OGCA in person months. And for our purposes with the NIH, it is required that we track effort in person months or at least provide a reasonable conversion.
ECRT continued

When loading computed effort in the ECRT system, opt to load it in a dollar format (comments??)

• First review the NIH grant account
• Confirm relative agreement between the dollar amount loaded in the original budget, the amount charged to the grant, and the effort reported in RPPR taking the 25% variance into account
• Certify the effort after confirming effort harmony as noted between budget/charged/RPPR reported