

Animal Care

Acquisitions/procurements that might benefit from "economy of scale"

- 6.1 Animal racks and/or replacement cages. (1,2)
Recommendation: Establish umbrella contracts across NIH that would allow prices to be negotiated at the NIH level rather than the IC level.
- 6.2 Feed/bedding from OLAO central contract. (1,2,3)
Recommendation: See 6.14
- 6.3 Common supply items from BPA/other contract vehicles. (1,2)
Recommendation: Establish umbrella contracts across NIH that would allow prices to be negotiated at the NIH level rather than the IC level.
- 6.4 Identify products not currently on contract (enrichment items, cage wash chemicals, uniforms, etc). (1,2)
Recommendation: Establish umbrella contracts across NIH that would allow prices to be negotiated at the NIH level rather than the IC level.
- 6.5 Preventive maintenance services for vivarium equipment (e.g., cage wash, autoclaves, anesthesia machines, radiological equipment). (1,2)
Recommendation: Establish umbrella contracts across NIH that would allow prices to be negotiated at the NIH level rather than the IC level.
- N.B. A survey was sent to each Institute's animal program that queried the quantities/volume of PPE, detergents, uniforms, feed, bedding, etc (items 6.1 – 6.5). The results of the survey are currently being compiled by Mr. Josh Rose, Industrial Engineer, ORS, Office of Quality Management.

Practices/policies that could result in lower costs

- 6.6 Use comp time in lieu of overtime (i.e., weekends, holidays) for animal care staff. (1,2)
Recommendation: This mechanism allowed DVR to meet its "flat" FY06 budget. This eliminates paying overtime for most expensive people. A disadvantage is that it reduces the number of available personnel during the workweek. Facility management should review staffing level to census ratios. The subcommittee realized the difficulty of a cross campus comparison but agreed this is an important consideration for each facility at an individual level.
- 6.7 Reduce the frequency and extent of rodent sentinel sampling (i.e., comprehensive vs. abbreviated panel). Abbreviated panels test for the most common/prevalent diseases. A disadvantage is that it increases the interval to detection and risks increased spread of disease. (1,2)
Recommendation: RADIL/DVR now offers 4 different serology panels at a cost reduced from FY06.
- 6.8 Find a cheaper substitution for Tyvek® when Tyvek® is needed. (1,2)
Recommendation: Less expensive Tyvek® substitutes (microporous film) are available from companies such as Landy Bio-Resources LLC (1-877-688-7558) and Life Science Products (1-

800-638-9874). "SMS" or heavy-duty polypropylene may work in some situations where Tyvek® is currently used. A disadvantage is that microporous film is less breathable than Tyvek®.

6.9 Re-examine PPE needs (1,2)

Recommendation: Each animal facility should compare its use of PPE to need based on the species housed and the use of biological, chemical or other hazards. Lower cost items can sometimes be used without compromising human safety or animal health. For example, lighter weight coveralls can be used instead of Tyvek® coveralls. Use of reusable PPE such as face shields should be considered. Cost savings in PPE should not be used to justify changes that increase the risks to humans working with animals. Animal programs with like needs should find ways to combine their orders for economy of scale (this was included in the survey mentioned above).

6.10 Examine feed wastage (1,2)

Recommendation: This recommendation applies primarily to rodents (other species are limited).

- Where the cages are set up may be an area under enough control so as to attain some savings. Placing feed in the hoppers in cage wash with cage set up versus placing feed in the hoppers once the cage is in the animal room.
- There is a tendency for animal care staff and investigators to “top off” the feed hoppers if they believe there is any need for food. This is especially true on Fridays. In addition, the animal care staff may be afraid of being held responsible if animals do (or are perceived to) run out of food.
- In summary, these techniques result in no routine topping off of hoppers; if it is necessary to add food at the weekly cage change then only enough food is added for the next week based on the number of animals in the cage.
- A reward system for animal caretakers has been considered based on the savings from less food being dispensed. However, this may be trumped by the “fear factor” among the staff if they don’t use enough food. It may be difficult to undo years of training/conditioning of animal caretakers.

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6.11 Reduce number of animals "warehoused" (1,3)

Recommendation: SDs should be familiar with animal costs and have a mechanism for charging/communicating these costs back to the PI. How are these costs communicated to the BSC? The SDs on the subcommittee found that sending the weekly census report to PIs decreases warehousing. How are these costs communicated to the BSC?

6.12 Reduce number of animals wasted due to faulty PI planning. (1)

Recommendation: In addition to providing this education at the Institute level, the IBWG also generated a “Dollar Stretching Idea” document to help address this issue.

6.13 Consolidate ZF facilities (3)

Recommendation: SDs and PIs need to be made aware of costs of satellite facilities. Labor savings in part a cost shift since investigative staff would have to travel to central site. A decision on this topic would need to be made at the SD/SRS level.

Program considerations

- 6.14 Evaluate costs associated with feed & bedding warehouse (decrease QA, consider on-time delivery, investigate/understand OLAO costs). OLAO attaches a surcharge of 39% or greater for feed and bedding ordered through the warehouse. (2,3)
Recommendation: QA program could be curtailed for moderate savings. On time delivery from vendor may make NIH feed and bedding warehouse outmoded. Planning needs to be synergistic with disaster planning since warehouse is relied upon in those circumstances. A subcommittee continues to investigate this item. N.B. OLAO has not lowered surcharge from 39% to 25% as report to the SDs on 2/7/07. It has remained at 39%.
- 6.15 More uniform administration of performance evaluation for performance-based contracts (1,2)
Recommendation: Harmonizing performance measures on the LARC will ensure more consistent assessment of the contractors and result in improved efficiencies. There should be a discounted rate for staff not fully trained/skilled for the position for which they were hired until all the skills of the position are met. We pay for people who don't meet the qualifications of the position. Billing categories will be developed that will discourage position inflation. This is not so much a cost *savings* as a performance *improvement*.
- 6.16 Develop general recommendations for staff to census ratios. (1,2)
Recommendation: Establishing a standard is very difficult; facility configuration may alter staffing needs (availability of elevators, poorly configured rooms, etc.). Number of cages/caretaker/day will vary depending on job description of caretaker (e.g., change only? health checks? wean/tail?), change technique, definition of day, etc. This issue needs to be examined at the individual contract level. Will be addressed when LARC is renegotiated (FY07 for 2/08).
- 6.17 Investigate new technologies for potential cost savings (bagged water, robotic cage wash, disposable cages). Disposable cages may save money in small facilities, satellite facilities, start-up facilities with limited space, and in quarantine situations. Innocage® (DisposableCages.com) is an example of disposable cages. Must consider environmental impact of disposable water/cages. Main campus won't recycle cages. NIAAA (Twinbrook) is trying recycling. Robotics has huge upfront costs. Institutions that have index robotics are not happy to date. Lab Products presented "bagged water" at 8/3/06 meeting. Edstrom also has a similar system. NIDCR has purchased Lab Prods water system. They should be able to give evaluation in 6 months or so (6/07). (1,2)
Recommendation: Continue to explore new technologies and assure information on these technologies is disseminated to the animal programs.
- 6.18 Educate investigative staff on cost outcomes relative to purchasing animals, improving efficiency of research colony/ASP management, cryopreservation of unused rodent lines. (1,2)
Recommendation: In addition to providing this education at the Institute level, the IBWG also generated a "Dollar Stretching Idea" document to address some of these issues.
- 6.19 Consolidate Cores (e.g., transgenic services, Ab prod'n, microarray, phenotyping, imaging, zebrafish). Centralization could save money, however the bureaucracy of central services could create problems. The usefulness of centralized Cores could vary depending on the function of the Core (e.g., transgenics, Ab prod'n, pathology, etc.). The subcommittee feels large IC's

and/or ones with large need probably have enough demand for services to have economy of scale. Smaller IC's and/or ones with limited need could benefit from central core or out-sourced contract mechanism. Nation-wide web-based survey on transgenic cores being conducted by Thomas Fielder @ UC-Irvine (tjf@uci.edu, 949-824-6496), this may provide further insight. (1,2,3)

Recommendation: The possibility of a trans-NIH contract to vendors for volume discount should be pursued. This is an important scientific issue [space allocation (for central core) and funding (central core and outsourcing)] and would need to be considered by the SRS/SDs.

6.20 Consolidate ZF facilities. This would reduce the labor cost of maintaining scattered facilities; decreases redundancies. (3)

Recommendation: SDs and PIs need to be made aware of costs of satellite facilities. Labor savings in part a cost shift since investigative staff would have to travel to central site. A decision on this topic would need to be made at the SD/SRS level.

6.21 Outsource rodent breeding and production services, genotyping, and/or cryopreservation services, especially for ICs with limited space and/or need.. One IC (NIAID) says their experience with outsourcing breeding and production has been positive and cost reducing. It allows the animal space used directly for research, not production. Another IC (NIAMS) has experienced some problems with the outsourcing of breeding and production services. Trainees also lose the experience of managing breeding colonies. This mechanism requires rederivation into vendor facility which results in a production delay. (1,2)

Recommendation: The possibility of a trans-NIH contract to vendors for volume discount should be pursued. This is an important scientific issue (funding would have to be available) and would need to be considered by the SRS/SDs.

6.22 Outsource transgenic rodent production, genotyping, and/or cryopreservation services, especially for ICs with limited need. (1,2)

Recommendation: see 6.19

6.23 Ensure contractor OMS costs do not exceed contract requirements OMS cost covered only for government equivalent and special projects. (1,2)

Recommendation: Define position qualifications and skills to limit migration of labor categories. This will be addressed when the LARC is renegotiated (FY07 for 2/08)

6.24 NIH-wide training costs for animal care and technical staff. NIH pays contractors to provide trained individuals. We shouldn't be paying for training. (1,2)

Recommendation: This item will be addressed when LARC is renegotiated (FY07 for 2/08)

6.25 Sharing of IT software that might improve efficiencies (e.g., breeding management software). Computerized breeding helps facilitate/streamline colony management and animal care. Animal care staff and investigative staff can both interact with some systems. Some software programs have large developmental/purchase prices. Most have annual maintenance fee (some are costly). JAX program is free. Most NIH Institutes that have already developed programs are probably willing to share. User would have to pay maintenance fees. (1,2)

Recommendation: Several Institutes are using various software programs. Institutes and contacts have been provided in the IBWG "Dollar Stretching Ideas" worksheet.