

OFFICE OF RESEARCH ADMINISTRATION

GUIDE TO BUDGET PREPARATION

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INTRODUCTION

This guide contains basic information for faculty and staff budgeting proposals for sponsored projects. It is updated periodically to reflect changes in budgetary policies and suggestions on budgeting likely costs in future years. All budgets must be prepared in accordance with the U.S. [Office of Management & Budget \(OMB\) Uniform Guidance Cost Principles](#), University of Maine System (UMS) [Administrative Practice Letters \(APL\)](#), University of Maine policy and procedures, and sponsor guidelines.

When preparing a proposal budget, begin by reviewing the sponsor's guidelines. The guidelines will include project specific allowable direct and indirect (F&A) costs and required budget formats.

ORA uses a required [Budget spreadsheet template \(Excel\)](#) to build budgets for proposal submissions. Please refer to the instructions included in the template for specific

guidance in how to use the template, and contact ORA [proposal staff](#) if you require assistance. Be sure to download a new spreadsheet for every proposal to ensure that all rates and formulas are current.

BUDGET BASICS

Expenses associated with sponsored projects are grouped into two types of costs: Direct Costs and Facilities & Administrative (also known as F&A or Indirect) Costs.

Direct Costs

Direct Costs are those costs that can be specifically ascribed to a particular research project, instructional activity, or other sponsored activity (ie. community service). Direct costs include but are not limited to: salaries and wages, fringe benefits, equipment, materials and supplies, travel, consultant costs, professional services, subawards, publications, tuition and Graduate Student health insurance.

Facilities & Administrative (Indirect) Costs

Facilities & Administrative Costs are those costs that are incurred for common or joint objectives and, therefore, cannot be identified readily and specifically with a particular sponsored project, instructional activity, or other institutional activity. F&A costs include depreciation and interest on buildings, equipment and capital improvements; operation and maintenance expenses; library expenses; general, departmental, and student administrative costs; sponsored programs, etc. See UM's federally negotiated [F&A Rate Agreement](#) for current rates.

The University requires including the appropriate F&A costs in all proposal budgets, unless the sponsor has a published policy that limits F&A recovery . The F&A rate is determined by the type of project i.e. research, instruction or other sponsored activities, and whether the project is performed on-campus or off-campus. Refer to [ORA guidance on F&A rates](#) for more information.

The distribution base used to determine F&A rates is *Modified Total Direct Costs (MTDC)* as defined by Uniform Guidance, 2 CFR §200.68. *MTDC* consists of all salaries and wages, fringe benefits, materials and supplies, services, travel, and subawards/subcontracts up to the first \$25,000 of each subaward/subcontract. *MTDC* excludes capital equipment, capital expenditures (construction, renovation or alteration of physical facilities), participant support costs, tuition, rental costs, scholarships and

fellowships, as well as the portion of each subaward/subcontract in excess of \$25,000. For more information about Direct and Facilities & Administrative Costs, and the allowability of costs, refer to:

- UMS APL VIII(C) [Direct Charging of Expenses \(PDF\)](#) ;
- UMS APL IV(I) [Use of University Funds \(PDF\)](#) ; and
- [OMB Uniform Guidance 2 CFR §200.412 - 414](#)

BUDGET CATEGORIES

- **Note that all budget categories on the ORA spreadsheet, with the exception of subcontracts, consultants, and participant support costs, refer to costs incurred by UM employees only.**

Personnel

- Individual salaries must reflect actual rates of compensation and must be expressed either as a percentage of time or number of months dedicated to the project. To derive monthly salary figures, divide academic year salaries by the length of appointment (typically 9 months for faculty) and fiscal year salaries by 12, excluding any administrative stipends. Salaries will be paid by UM based on current compensation rates, up to the dollar amount budgeted by the sponsor.
- For assistance in determining the classification and salary/wage range of a new position, contact the [Office of Human Resources](#).
- To help offset prospective increases in salaries and fringe rates, ORA recommends including a 2-3 % annual increase on all salaries. The fact that an estimated increase is funded by an external source does not mean that such an increase will be given to employees. Employees receive only increases approved by the Board of Trustees and/or provided for in the appropriate collective bargaining agreement.
- Additional compensation beyond an individual's base salary is typically unallowable for PIs and Co-PIs on federally funded projects. However, it may be allowed for non-PI faculty and monthly paid employees if prior approval is received from the federal sponsor. Hourly paid employees are not able to receive add comp and instead, are eligible for overtime pay for activity exceeding 40 hours per week.
- Additional compensation for PIs and Co-PIs on non-federally funded projects may be allowed with prior approval from the sponsor.
- Be sure to fill in the correct account code for each salary line, as that will determine the fringe rate applied to that salary. If someone is requesting both academic and summer salary, use two separate salary lines; one at the regular fringe rate and one at the temp/ summer salary rate.

Senior Personnel

Senior personnel are individuals who substantially contribute to the scientific development or execution of a project. This category includes the Program Director or Principal Investigator (PI) and Co-Principal Investigators (Co-PIs).

Other Personnel

Other personnel include salaries for all other UM personnel who will work on the project,

such as Post-Doctoral associates, professional employees, graduate students, undergraduate students and temporary employees, etc.

GRADUATE STUDENTS: Student assistantships are typically 10 hours per week (half-time assistantship) or 20 hours per week (full-time assistantship). The minimum stipend rates for graduate research assistantships, tuition rates, and health insurance costs are available on [ORA's Rates Page](#). If including only the minimum stipend level, a 3% increase must be applied for each year of the project.

Investigators may propose higher stipend levels to help graduate assistants offset mandatory fees, which can exceed \$1,000 per year. Do not list "fees" separately unless required by the program solicitation, as they are almost always unallowable as direct costs. Note that tuition and health insurance are budgeted separately under "Other Direct Costs" and should not be included in the personnel line.

*Graduate students as PIs: Graduate students may not serve as PI on a project unless s/he meets the eligibility requirement of the sponsor, and the sponsor explicitly requires that the student, and not a faculty mentor, be the PI of record. If that requirement is present in the sponsor solicitation, then the graduate student will complete the required Financial Conflict of Interest (FCOI) training, register for a PARS account, and be listed as the PI. The student's advisor MUST be listed as Co-PI on these proposals internally, even if the sponsor does not require it.

UNDERGRADUATE STUDENTS: At minimum, undergraduate students must be paid the state minimum wage rate. The undergraduate student pay line should be used for any undergraduate students who will be contributing paid effort to the project and reporting hours in Peoplesoft for compensation. This line should not be used to provide fellowship payments for undergraduate students who are under no obligation to provide service to the University. The undergraduate student pay line may also be used to pay high school students who will be paid employees on projects.

SECRETARIAL/CLERICAL: Salaries and wages of administrative or clerical staff are typically treated as an F&A cost and may be requested as direct costs only for projects requiring an extensive amount of administrative or clerical support and where these costs can be readily and specifically identified with the project with a high degree of accuracy. The circumstances for requiring direct charging of these services must be clearly described in the budget justification, and must demonstrate that the effort required is well beyond the routine requirements of sponsored projects. See the [ORA guidance page](#) on administrative and clerical salaries for examples of when this type of request is appropriate.

Fringe Benefits

The University has two fringe benefit rates, one for temporary employees, which also applies to faculty summer salary, and a second for all other non-student personnel, which

includes Faculty academic year salary/ release time. See [ORA's Rates Page](#) for rates currently in effect.

Note that fringe rates are negotiated on an annual basis and are subject to change every July 1st. Only approved fringe rates are allowable on grant submissions.

Capital Equipment

Capital equipment refers to an item of nonexpendable, tangible property having a useful life of at least one year, an acquisition cost of \$5,000 or more, and the ability to function as a stand-alone unit. Equipment meeting all three criteria are exempt from indirect costs unless specified by the sponsor.

Capital equipment may also include components needed for the construction of a stand-alone unit valued over \$5,000.

When including capital equipment in a budget, PIs must provide the proposal staff with equipment quotes.

Travel

Eligible travel costs usually include the costs of attending professional meetings to confer with colleagues and to disseminate the results of the project, as well as the costs of travel necessary to conduct the project. ORA requires that travel be broken down into in-state, out-of-state, and foreign travel. Most sponsors have restrictions on foreign travel, so if foreign travel is anticipated, be sure to thoroughly justify the necessity of such travel relative to the project.

Travel details should match that of sponsor requirements. At minimum, an overall cost per trip should be included as well detailed regarding included elements of the trip cost (lodging, subsistence, per diem, etc.) UM reimburses meal expenses at a maximum limit of \$50 per day, per person for overnight travel and up to a maximum limit of \$20 per day, per person for single extended days. Local travel must include an approximate number of miles, with costs based on the current UM reimbursement rate of \$0.46/mile. If using UM motor pool, use the current [Motor Pool mileage and daily rental rates](#).

Note that expenses in this Travel category apply only to UM Employees or graduate/undergraduate students. Travel for consultants and other non-UM employees must be listed elsewhere (under Consultants, Subcontracts, or Other Direct Costs/Non- Employee Travel).

Participant Support Costs

Per [Uniform Guidance](#), Participant Support Costs may include only “stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences, or training projects” unless otherwise directed by the RFP. Facility rental, speaker fees, advertising/ publication fees, program-related materials/supplies, incentives, etc. are not considered Participant Support, and must be itemized separately as Other Direct Costs. Correctly

categorized participant support costs are exempt from indirect costs. For more detailed information, please refer to the [UMS APL VIII-M](#).

Who is a participant?

A participant is a non-UM employee who is a recipient or beneficiary of a service or training session associated with a workshop, conference, seminar, symposium or other information sharing activity. Participants perform *no work or services for the project or program other than for their own benefit*. A participant is not involved in providing any deliverable to the university or a third party, or would not be terminated or replaced for failure to perform.

In general, participant support allowances may not be paid to trainees who are receiving compensation, either directly or indirectly, from other Federal government sources while participating in the project.

Materials & Supplies

Materials & Supplies include project specific consumables such as laboratory materials and supplies, and equipment with a unit cost less than \$5,000 or an expected useful life of less than one year. If materials and supplies needs are large, classify them by major items or categories, and include subtotals and justifications for the larger categories.

Materials and Supplies includes laptops and software specifically allocable to this project only. Additional UM spreadsheet categories that may be included in the sponsor's "Materials" line item include: non-capital equipment, publications, computer software <\$5,000, computer or lab eqpt. < \$5,000. Keep in mind that routine office supplies are considered F&A costs and are unallowable.

Consultant Services

Consultants are experts (normally individuals, not organizations) engaged by the project for short-term or sporadic periods, usually to provide technical assistance or to render evaluation services. Consultants should be identified in your budget by name. If another institution, company, or organization will play a significant role in the project, they should be identified as a Subrecipient as opposed to a Consultant (see below).

University of Maine employees or students may not be budgeted as consultants and must instead be included in the senior or other personnel salary lines.

Also review:

- [UMS APL VII-A\(2\): University of Maine System Purchasing Procedures](#) (in particular, section VIII: Procurement of Professional Services and Consultants)
- [UMaine Checklist for determination of independent contractor](#)

Anticipated consultant services must be justified and the following information must be provided in a signed letter of commitment from the proposed consultant prior to proposal submission: the individual's expertise, their primary organizational affiliation, their normal daily compensation rate, and the number of days of expected service.

Consultants' travel costs may be included in this line item.

Professional Services

Professional services refers to vendors, distributors, or other specialized group providing goods or services that are necessary for the conduct of a sponsored project. See [Uniform Guidance §200.459](#) for specific defining qualifications. Vendors generally: provide the goods and services within normal business operations; provide similar goods or services to many different purchasers; operate in a competitive environment; provide goods or services that are ancillary to the operation of the sponsored project; and are not subject to compliance requirements of the grant sponsor. Professional Services, like Consultants, are simply providing a one-time service and are not playing a significant role in the design, development, or implementation of the overall project.

Professional Services over the current small acquisition threshold of \$3,000 must be put out to bid unless the service provider is justifiable as a sole-source (see Uniform Guidance Procurement Standards, [2 CFR §200.319-20](#)).

For more guidance on distinguishing between a vendor and subrecipient, and related compliance requirements, refer to [Uniform Guidance §200.330](#).

Subrecipients

Subrecipients are organizations or institutions, not individuals, who will play a significant role in the planning and execution of the project, and to which a portion of the project activities will be delegated. Subrecipients are distinguished from vendors (Professional Services) by having their own key personnel, scope of work, budget and budget justification. A signed [Subrecipient Commitment Form](#), budget, budget justification, and scope of work is required by UM prior to proposal submission. The Subrecipient Commitment Form is an internal form and should not be submitted to the sponsor.

However, a separate subrecipient budget, justification, and key personnel documents (CV, Current & Pending Support) are often mandatory documents that need to be submitted to the sponsor as part of the proposal. Awards made to subrecipients are formal arrangements and usually carry the same terms and conditions as the prime award.

As described in [Uniform Guidance §200.330](#), a subrecipient generally: “determines who is eligible to receive what [Federal] assistance, has its performance measured in relation to whether the objectives of a [Federal] program were met; has responsibility for programmatic decision making; has responsibility for adherence to applicable [Federal] program compliance requirements; and in accordance with its agreement, uses the [Federal] funds to carry out a program... as opposed to providing goods or services for the benefit of the pass-through entity.”

Tuition

Tuition is typically included for graduate students engaged on a sponsored project unless prohibited by the sponsor. A 3% increase is required for [Estimates for tuition costs](#). Calculations including number of credits, number of students, and rate per credit must be included in the budget justification.

Full time enrollment is set at 13 credits per year (6 credits per fall and winter semester, 1 credit for summer semester). The average graduate assistant enrolls in 9 credits per spring and fall semester and 6 credits for summer semester. Tuition included on the sponsor budget should be representative of the student's committed effort to the project.

Fees associated with tuition are not typically an allowable expense under federal sponsors. In the rare occasion they are allowed, these fees should be listed as "Other Fees" with account code 60321 in the Other Direct Cost section of the ORA budget template.

Graduate Student Health Insurance

Health Insurance is required for all Graduate Students working in a full-time assistantship (20 hrs/wk), regardless of the number of weeks they will be working on the project. Assistantships less than 20 hours a week are not eligible for the graduate student assistantship insurance benefit.

One half of the [premium](#) must be charged to the grant providing their salary, although PIs may request up to the full amount. This is a required cost unless the specific graduate student has already been identified and has health insurance through another policy. It is required to include a 5% increase annually for this cost.

If a student is in a full-time assistantship but is only working for one semester, the health insurance premium can be prorated to represent 25% of the yearly cost.

Miscellaneous:

Federally Funded Research & Development Centers

Federally Funded Research & Development Centers

Federally funded research and development centers (FFRDCs) are a special type of government owned, contractor-operated research centers that conduct research and development (R&D) and related activities in support of a federal agency's mission. The federal government currently operates 42 FFRDCs which are detailed in this list provided by NSF.

Inclusion of funds to support work conducted by an FFRDC under a UMaine project is allowable. Careful consideration must be paid to the sponsor guidance as to how the FFRDC will be included in the project budget.

In some circumstances, the FFRDC will be paid directly by the federal sponsor and their project dollars will not be received at UMaine. In this case, the UMaine internal budget will not reflect the FFRDC funds but the budget submitted to the sponsor will reflect the FFRDC funds. The budget justification will include these costs with a note indicating the funds will be paid directly from the federal sponsor to the FFRDC. Under this setup, funds for the FFRDC are not subject to UMaine indirect costs.

If the FFRDC will be paid by UMaine, the FFRDC will be included in the UMaine budget as a vendor or subrecipient depending on the nature of the relationship and included in the indirect cost base.

Publications

Publication costs (60900) include the costs of preparing and publishing the results of research conducted under the project, including costs of reports, reprints, page charges, or other journal costs, and necessary illustrations ; cleanup, documentation, storage and indexing of data and databases; and development, documentation and debugging of software etc.

Phone

Long-distance telephone calls may be appropriate to include in a proposal budget as long as the expenses are directly allocable to the specific grant project. As a general rule, telephone hardware, installation and line connection costs and cellular phones are considered F&A Costs and should NOT be directly charged to federally sponsored project accounts.

Printing, Postage, and Shipping

Printing/ Copying (60800, 60603, 60604), Postage/FedEx/UPS (60400), and Shipping (60400) costs, if directly allocable to the project, may be budgeted as allowable Other Direct Costs.

Rentals

Rentals from non-UMaine entities are excluded from indirect costs.

Interdepartmental Services

This cost category, 61008, includes all services provided by UMaine departments. Interdepartmental services includes but is not limited to analysis, MAFES, and the advanced computing group. A basis of cost must be included in the budget narrative. It should be noted on the budget justification that the rates in place are provisional and approved rates will be confirmed prior to award spending.

University Center Service Fee

This category includes all approved UMaine core services under account code 60140. A basis of cost must be included in the budget narrative.

Non-participant stipends

Non-participant stipends, such as those for advisory board members, facilitators, workshop leaders, or expert panelists should be budgeted in the *Other Direct Costs* section of the ORSP budget template using Account Code 60004, *Honoraria and Lecture Fees*.

Human Subjects Payments

Human subject payments should be budgeted using Account Code 60000, *Independent Personal Services*. If gift cards will be purchased please be aware that gift cards may not exceed \$50 per person and must follow the purchasing process through Strategic Procurement.

Research Computing Needs

The University of Maine and the University of Maine at Machias (UMM) utilize Advanced Research Computing (ARC) for all research computing needs. ARC provides expertise and resources for reliable and cost-effective high performance computing, AI support, data storage, and visualization, as well as for consultation, training, and grant writing assistance. ARC collaborates with premier national supercomputing centers, such as the Texas Advanced Computing Center (TACC) and the Ohio Supercomputer Center (OSC), as well as regional and local partners, allowing UMaine and UMM faculty to select the most appropriate and cost effective service for any project. ARC is associated with the UMaine Coordinated Operating Research Entities (CORE), which provides federally compliant research equipment and facility service rates to members of the research community and their collaborators. Before conducting sponsor funded work that requires research computing as well as while developing grant and proposal submissions with a research-computing component, faculty and staff are required to engage with ARC. For more information, please contact um.arc@maine.edu.

Indirect costs

Indirect costs are charged according to the UMaine federally negotiated indirect cost rate, sponsor guidance or based upon a voluntary waiver of indirect costs by the Vice President for Research. Please include the following language in the budget justification based upon the indirect rate charged.

Applying the negotiated rate for indirect costs

Indirect costs are charged at the federally negotiated rate of XX% MTDC for (research, other, or instruction) for a total indirect cost of \$XX. The DHHS rate agreement (date: 4/1/2020) is available at <https://www.maine.edu/finance/wp-content/uploads/sites/39/2020/05/UM-RA-FY19-signed-Accessible.pdf>.

Applying indirect costs at a voluntarily reduced rate

Indirect costs are charged at a voluntarily reduced rate of XX% MTDC for total indirect costs of \$XX. The federally negotiated rate for (research, other or instruction) is XX% MTDC. The DHHS rate agreement (date: 4/1/2020) is available at <https://www.maine.edu/finance/wp-content/uploads/sites/39/2020/05/UM-RA-FY19-signed-Accessible.pdf>.

Applying indirect costs at a sponsor cap

Indirect costs are charged at XX% of (MTDC or TDC) in accordance with sponsor guidelines. The University of Maine's federally negotiated indirect cost rate agreement is available at

<https://www.maine.edu/finance/wp-content/uploads/sites/39/2020/05/UM-RA-FY19-signed-Accessible.pdf>.

OTHER BUDGET COMPONENTS

Cost-Sharing

Cost-share/Match are funds that either UM or a third-party contributes to a project as specifically required by the sponsor. UM policy limits the cost-sharing amount to the minimum limits imposed by the sponsor. If additional funds will be needed above and beyond the specified match ratio in order to complete the scope of work, permission must be granted in writing by the VPR. All University cost-sharing must be approved within PARS prior to proposal submission. Third-party and UM voluntary cost-share must be corroborated by a signed letter of commitment received prior to proposal submission.

“In-Kind” cost-share does not exist at UM. All expenses must be auditable, and therefore must have a dollar value associated with them. A percentage of someone’s salary, for example, is still a portion of that person’s time that must be quantified and accounted for, and therefore documented in the budget. Equipment use fees are real expenses as well, and therefore should be charged accordingly. Third party cost share may be designated as “in-kind” by that organization, however all matching funds must be documented, auditable, and directly allocable to the project.

While the University may in principle share in any of the costs, the preferred contribution from the University is a portion of the personnel costs: salaries and wages, plus the fringe benefits associated with them. The University also incurs the F&A costs associated with the direct costs it contributes. It is most common for academic release time to be the source of cost shared salary.

University cost-sharing also takes the form of sharing a portion of the F&A costs associated with sponsor-funded direct costs, if the sponsor has a published policy that limits F&A recovery. The F&A portion not recovered will be shown on the UMaine budget template as University cost-sharing for auditing purposes, but may only be included on sponsor budgets when allowable as cost-share.

Note that UM has entered into cooperative agreements with the State of Maine and a few other sponsors and programs which establish exceptions to the federally negotiated UM F&A Rate Agreement. Questions regarding limited indirect cost rates and cost-sharing should be directed to ORA.

For more information on Cost-Sharing, see [Uniform Guidance §200.306](#).

Budget Justification

The Office of Research Administration requires that a budget justification accompany the ORA spreadsheet to ORA staff for review and approval. Almost all sponsors require a detailed narrative description/justification of budgeted items for each project year. The level of detail

required may vary, but in general, all personnel time commitments must be included, as well as an explanation of all funds being requested or contributed in each major budget category described above, including fringe benefits and F&A costs.

Sample Budget Justification: University of Maine

SALARIES AND WAGES

SENIOR PROJECT PERSONNEL SALARIES AND WAGES

1. Dr. Jane Doe (PI). The PI requests two months of summer salary per year during the entire study to design, implement, collect data, analyze data, supervise work by graduate and undergraduate students, draft publications, attend meetings to present formative and final results of the project. Salary includes a 2% annual increase.

OTHER PERSONNEL

1. One graduate student is supported by this project with an annual stipend of \$21,840. This student will focus on data collection and analysis. Salary includes a 5% annual increase.
2. Undergraduate students: 10 undergraduate students will be hired to support data collection, database creation and database management. Y1-Y5: 500 hrs. of work per year (\$12.15/hour).
3. *TBN* (Software Engineer) - Funds are requested for a 1/3 time software engineer to provide web design, software interface development and optimization support. Yr 1 only.

FRINGE BENEFITS \$13,680

Fringe benefits are charged in accordance with the UMaine negotiated rate agreement. The summer salary fringe benefit rate is 7.6% in year one and 7.8% in years 2 and 3. Regularly salary fringe rates are charged at 52.3% in year one and 53.4% in years 2 and 3. Fringe benefits are not charged on student salaries.

CAPITAL EQUIPMENT \$53,100

\$53,100 is requested in year one to purchase components to build high vacuum field emission (FE) chamber. This chamber will consist of a 6-way cross that can be bolted directly onto our existing UHV chamber used for growth of nanostructures. This will afford us the ability to study FE properties in situ without contamination from oxygen and other species. A Keithley high voltage power supply will be purchased; a large voltage will be applied to a floating sample stage. The sample stage will be control via motors at a specified distance from a metal anode – this anode will collect any emitted electrons during the FE process. The distance between the sample stage and the probe will be controlled via laser interferometry. Via control of both the voltage and distance from the anode, a Fowler-Nordheim plot can be generated and the FE properties quantitatively ascertained.

The individual costs for the field emission system are:

- | | | |
|-----------------------------------|-----------|-------------------|
| (1) The vacuum chamber costs = | ~\$2,000 | |
| (2) Main manipulator stage = | ~\$9,600 | |
| (3) Pick-up manipulator = | ~\$3,300 | |
| (4) High voltage source meter = | ~\$7,200 | |
| (5) Laser interferometer = | ~\$23,000 | |
| (6) Associated vacuum equipment = | ~\$8,000 | TOTAL = ~\$53,100 |

TRAVEL \$10,652

DOMESTIC TRAVEL

1. Conference attendance (domestic): two national conferences (\$1,500 per conference) will be attended by PI to present formative and final results of the project. Five days is anticipated for each trip (Y2 and Y5). Funds will cover airfare, lodging, conference registration, ground transportation and meal reimbursement charged at the University of Maine rate of \$50 per day.
2. Trips by two people (PI and graduate student) to facilitate participatory planning workshops out-

of- state; one workshop per year (Y3 and Y5). Per trip breakdown: \$2,826. Funds will cover airfare, lodging, conference registration, ground transportation and meal reimbursement charged at the University of Maine rate of \$50 per day.

INTERNATIONAL TRAVEL

3. Conference attendance (international): one international conference (\$2,000) will be attended by the PI to present results of the project. Five days are anticipated for this trip (Y3 only). Funds will cover airfare, lodging, ground transportation, per diem (OCONUS rates) and conference registration.

OTHER DIRECT COSTS

MATERIALS AND SUPPLIES \$7,000

1. Supplies for fieldwork per year: flagging (\$200), lab consumables (\$1000)
2. Two (2) field data entry device (\$500 per unit) for data collection and real-time data analysis. (Year 1 only)

SOFTWARE \$3,750

Computer software will be purchased for qualitative data analysis, quantitative data collection, and GIS mapping and planning.

1. Three (3) NVivo11 license (Y1: \$950 per license)
2. Three (3) NVivo license upgrade (Y3: \$300 per license)

CONSULTANT SERVICES \$6,000

Dr. Susan Smith will serve as a consultant in year 5, assisting with project evaluation. She will work for a total of ten days (80 hours) at the maximum consultant rate of \$600/day. Total requested costs are \$6,000. A copy of the signed commitment letter from Dr. Smith is included with this budget justification.

SUBRECIPIENTS

This project includes a subaward to Boston University (PI: John Brown). The total amount of the subaward over 5 years is \$50,000. PI John Brown will assist with data analysis.

OTHER - GRADUATE STUDENT TUITION \$50,941

1. Graduate student tuition covering 21 credits per year at \$439/credit, for five years, with a 3% annual increase

OTHER – GRADUATE STUDENT HEALTH INSURANCE \$15,720

1. Health insurance for graduate student, with a 5% annual increase per University of Maine policy with a base rate of \$2,845 in Year 1.

OTHER—PHOTOCOPYING/PRINTING

1. Photocopying and printing: \$500 per year

OTHER – FACILITY RENTAL

1. Rental costs of \$370 for 0.1 acres of blueberry land are requested for the first year to conduct experiments on ascospore dispersal. Rental of blueberry land is \$3700 per acre at Blueberry Hill Research Farm, Jonesboro, ME where field experiments measuring spore dispersal will be performed. Rental costs are excluded from the indirect cost base.

INDIRECT COSTS (F&A)

Indirect costs are charged at the University of Maine's federally negotiated rate of 47.5% of modified total direct cost for on-campus research for a total indirect cost of \$18,754. The DHHS rate agreement (date: 9/9/2022) is available at https://www.maine.edu/finance/wp-content/uploads/sites/39/2023/02/University-of-Maine-System.7056.RA_.21-signed-1.pdf