# Building a **Believable** Budget

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**WiSys** 

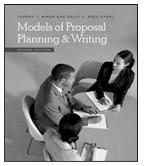
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## **Session Overview**

- Matching sponsor's available funding and scope of work
- Understanding budget elements and cost principles
- Considering budget explanations and justifications
- Questions



# **Grant Writing Resources**



Greenwood, 2016



Greenwood, 2013





Greenwood, 2011

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# Is the budget believable?



### Application to government agency:

"The goal of this project is to improve academic achievement of middle school students in mathematics by offering a 2-week summer institute to 30 teachers from 6 districts with follow-up support during the academic year."

"A grant award of \$122,848 represents a modest investment of \$4,095 in each participating middle school teacher."

Item Description	Year 1
Salary & Wages: Senior Personnel  Pl 1.5 months summer + Two 3-credit course release (IBS=\$55K)  Adjunct backfill (Two 3-credit courses @\$1500/credit)  Co-Pl 1.5 months summer (IBS=\$53K)	\$20,167 \$9,000 \$8,833
Fringe Benefits PI @ 44% Adjunct @ 44% Co-PI @ 44% Evaluator @ 44%	\$9,277 \$4,140 \$4,063 \$2,760
Evaluator (\$500/day x 12 day)	\$6,000
Participant Support Costs  Stipends (30 people x \$250/wk x 2 wk)  Mileage (30 people x 100 mi/wk x 2 wk)  Lodging (15 people x \$89/night x 4 night/wk x 2 wk)  Food (30 people x \$10/person x 10 day)  Books and handouts for 30 people (\$50/book x 2 book/person + \$5/packet)  Teacher substitutes (30 people x \$105/day x 4 days)	\$15,000 \$3,270 \$10,680 \$3,000 \$3,150 \$12,600
Other Supplies and Expenses Pl and Co-Pl travel to schools (average 1200 mi/year each) Pl and Co-Pl travel to required sponsor annual meeting	\$1,308 \$500
Direct Costs	\$113,748
Indirect Costs @ 8% TDC	\$9,100
TOTAL REQUEST	\$122,848

### **Budget Justification**

### **Senior Personnel**

The PI and Co-PI, who have expertise in math content, pedagogy, and culturally relevant practice, will develop and deliver professional development instruction during the 2-week summer institute. The PI will also administer the program and facilitate follow-up activities during the academic year. Accordingly, an Adjunct will backfill for one of the PI's courses in the fall semester and one in the spring semester.

### Fringe Benefits

Fringe benefits follow the standard rate set for faculty and academic staff at 44%.

### **Evaluator**

A member of the Business faculty with expertise in qualitative and quantitative methodologies and statistical analysis will serve as the project evaluator at a consultant rate of \$500/day for 12 days.

### **Participant Support Costs**

A cohort of 30 middle school teachers will be drawn from 6 districts. For their participation in the 2-week summer institute, teachers will receive a stipend of \$250/week. It is anticipated that half of the teachers will live within 50 miles of the university and commute daily for the institute while the other half will live more than 50 miles away and prefer to stay overnight at a local hotel during the week. Mileage and lodging rates follow standard university policies. Food is estimated at \$10/teacher per day and includes morning coffee and a boxed lunch from a local restaurant. Two books (\$50 each) and a resource packet handout (\$5 each) that complement institute content will be provided to each teacher. Substitute teachers will be provided for participants' release time – twice in the fall and twice in the spring – to support coaching, peer observation, collaboration and planning time, and program feedback.

### Other Supplies and Expenses

The PI and Co-PI will facilitate follow-up activities during the academic year, driving an estimated 1200 miles/year each to support teachers in their classrooms. The PI and Co-PI will also attend the required sponsor annual meeting, with mileage, per diem, and lodging following standard university rates.

Item Description	Year 1
Salary & Wages: Senior Personnel	
PI 1.5 months summer + Two 3-credit course release (IBS=\$55K)	\$20,167
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Fringe Benefits	
• PI @ 44%	\$9,277
• Adjunct @ 44%	\$4,140
• Co-PI @ 44%	\$4,063
• Evaluator @ 44%	\$2,760
Evaluator (\$500/day x 12 day)	\$6,000
Participant Support Costs	
Stipends (30 people x \$250/wk x 2 wk)	\$15,000
Mileage (30 people x 100 mi/wk x 2 wk)	\$3,270
Lodging (15 people x \$89/night x 4 night/wk x 2 wk)	\$10,680
Food (30 people x \$10/person x 10 day)	\$3,000
Books and handouts for 30 people (\$50/book x 2 book/person + \$5/packet)	\$3,150
Teacher substitutes (30 people x \$105/day x 4 days)	\$12,600
Other Supplies and Expenses	
PI and Co-PI travel to schools (average 1200 mi/year each)	\$1,308
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# **Cost Principles**

### **Necessary and Reasonable**

- Is it essential to the conduct of the project?
- Would any prudent person purchase this item at this price?

### **Allocable**

 Is there a direct relationship between the item and the project?

### **Allowable**

 Does the item/cost follow sponsor terms and conditions?

### **Consistently Treated**

 Are costs, at the institutional level, treated the same in like circumstances?

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# **Budget**

Direct costs = costs that can be tied to a specific grant project.

- Personnel
- Fringe benefits
- Equipment
- Supplies
- Travel
- Consultants

Indirect costs = real costs incurred by an institution but that cannot be tied to a specific grant project.

- Facilities & Administrative Costs (Federal)
- Administrative Costs (Foundation)
- Overhead (Corporate)



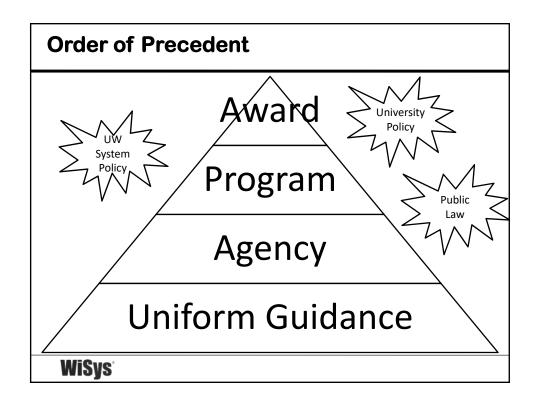


# **Budget: Items**

- Accounting
- Advertising
- Animals
- AV instruction
- Auditing
- Binding
- Books
- Computers
- Construction
- Consultants
- Curriculum materials
- Dues
- Equipment
- Fringe Benefits

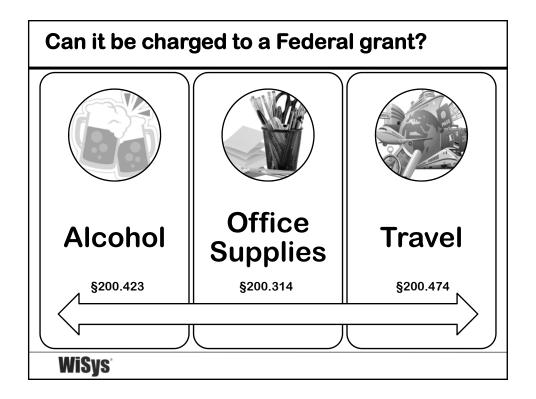
- Indirect costs
- Instruments
- Insurance
- Internet
- Legal services
- Lodging
- Maintenance
- · Per diem
- Periodicals
- Postage
- Publications
- Recruitment
- Refreshments
- Registration feesRelocation

- Renovation
- Rent
- Repairs
- Research participant incentives
- Salaries and wages
- Security
- Space
- Subawards
- Subcontracts
- Supplies
- Telephone
- Travel
- Tuition
- Utilities
- Visas



# **Compensation – Personal Services §200.430**

- Salary Basis institutional base salary rate
- Intra-Institution of Higher Education Consulting assumed to be undertaken as an IHE obligation requiring no compensation
- Extra Service Pay overload compensation, subject to institutional policy
- Periods Outside the Academic Year institutional base salary rate



# Did you remember to include?

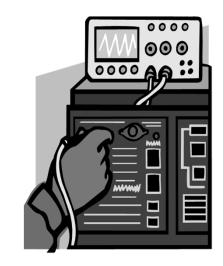
# **Personnel**

- Personnel classification determines salary and fringe benefits
- Advertising?
- Background checks?
- Campus visits?
- Moving expenses?
- Desk/chair?
- Computer/printer?
- Phone?





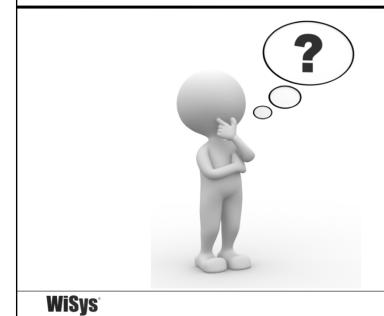
# **Equipment**



- Vendor quote lists equipment and add-ons
- Shipping?
- Installation?
- Adequate space?
- Power source?
- Maintenance?
- Training?
- Insurance?
- Security?

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# Did you explain it or justify it?



# **Budget Explanations vs. Justifications**

	Year 1	Year 2	Year 3	TOTALS
Salary & Wages				
<ul> <li>PI 1.35 months summer (IBS=\$60K; 4% COLA)</li> </ul>	\$9,000	\$9,360	\$9,734	\$28,094
<ul> <li>4 UG students summer (40hr/wk x 10wk x \$10/hr)</li> </ul>	\$16,000	\$16,000	\$16,000	\$48,000
Fringe Benefits				
• PI @ 50%	\$4,500	\$4,680	\$4,867	\$14,047
Students @ 3%	\$480	\$480	\$480	\$1,440
Equipment				
Widget Analyzer (includes shipping and maintenance plan)	\$20,000	\$0	\$0	\$20,000
Travel				
• PI + 1 Student to conference (\$1,250/ea)	\$2,500	\$2,500	\$2,500	\$7,500
Materials and Supplies				
Chemicals, reagents, glassware	\$5,600	\$5,600	\$5,600	\$16,800
Direct Costs	\$58,080	\$38,620	\$40,182	\$135,882
Indirect Costs @ 45% Salary + FB	\$22,491	\$13,734	\$13,987	\$50,212
TOTAL REQUEST	\$80,571	\$52,354	\$54,169	\$186,094

# **WiSys**

# **Budget Explanation: Salaries & Wages**

### · Senior Personnel

The PI will be responsible for the overall management and direction of the project, including serving as a mentor for the undergraduate student researchers. The PI has a nine-month appointment and requests 1.35 months salary for each year of the three years of the project. Calculations use an assistant professor base salary and include a projected four percent yearly cost of living adjustment.

# **Budget Justification: Salaries & Wages**

### Senior Personnel

The PI will be responsible for the overall management and direction of the project, including serving as a mentor for the undergraduate student researchers. The PI has a nine-month appointment and requests 1.35 months salary for each year of the three years of the project. Calculations use an assistant professor base salary and include a projected four percent yearly cost of living adjustment. Year 1 activities include supervising students performing the initial work on the Truffula complexes as well as conducting collaborative student-faculty research in the Whoville basin to sample Yekkos. Year 2 activities center on mentoring undergraduate researchers and continued work in the Whoville basin to characterize Zummers. Year 3 activities focus on completing syntheses of Snuvs and guiding undergraduate students in the preparation of manuscripts to be submitted to peer reviewed journals such as Diffendoofer International, Kwigger, and The Journal of Quimney.

# **WiSys**

# **Budget Explanation: Salaries & Wages**

### Other Personnel

Each year the PI will collaborate with a research group of four undergraduate students on project activities. All undergraduate researchers will be paid the standard university rate of \$10 per hour. Expected commitments of undergraduate students for each project year is to work 40 hours per week during a 10-week period during the summer.

# **Budget Justification: Salaries & Wages**

### Other Personnel

Each year the PI will collaborate with a research group of four undergraduate students on project activities. All undergraduate researchers will be paid the standard university rate of \$10 per hour. Expected commitments of undergraduate students for each project year is to work 40 hours per week during a 10-week period during the summer. Students play a major role in data collection and analysis and the number of undergraduate researchers aligns with the scope of project. The objectives are designed so that undergraduate researchers will each have their own set of production targets and will be responsible for one characterization technique to gain expertise on the instrumentation. In Year 1 they will focus on branch Jibboo. In Year 2 they will amalgamate Squitsch. In Year 3 they will complete Grickity Gruckus.

# **WiSys**

# **Budget Explanation: Fringe Benefits**

### · Senior Personnel

Fringe benefits are charged as direct costs and calculated at standard university rates of 50% for faculty.

# **Budget Justification: Fringe Benefits**

### · Senior Personnel

Fringe benefits are charged as direct costs and calculated at standard university rates of 50% for faculty. Benefits include worker's comp (.96%), terminal leave (.06%), income continuation (.20%), unemployment (.00%), social security (6.07%), FICA (1.45%), health (28.35%), life (.09%), retirement (10.81%), and shortfall/overage (2.01%). This diversity of benefits has contributed to a high retention rate among faculty and staff at the university.

# **WiSys**

# **Budget Explanation: Fringe Benefits**

### Other Personnel

Fringe benefits are charged as direct costs and calculated at standard university rates of 3% for students.

# **Budget Justification: Fringe Benefits**

### Other Personnel

Fringe benefits are charged as direct costs and calculated at standard university rates of 3% for students. Benefits include worker's comp (.67%), social security (.85%), FICA (.20%), and shortfall/overage (1.28%).

# **WiSys**

# **Budget Explanation: Equipment**

Funds totaling \$20,000 are requested in Year 1 to purchase a Widget Analyzer that will facilitate the characterization of Nizzards. A vendor quote is included in the supplementary documents.

# **Budget Justification: Equipment**

Funds totaling \$20,000 are requested in Year 1 to purchase a Widget Analyzer that will facilitate the characterization of Nizzards with sensitivity of .001 ßf. A vendor quote is included in the supplementary documents and reflects the total cost of the instrumentation, shipping, a one-year unconditional warranty, and three-year maintenance plan. The PI has experience working with Widget Analyzers, thus no additional costs for installation and training are necessary. The Widget Analyzer will be housed in the Bits Lab, which has an adequate power supply and technician support. Of note, other equipment for producing Ga-fluppted and harvesting Beft is already available at the university and can be accessed by the PI without incurring user fees.

# **WiSys**

# **Budget Explanation: Travel**

The PI and one student researcher will travel each year to conferences to disseminate project results. Costs are estimated at \$1,250 per person and include airfare (\$450), lodging (\$150/night x 3 night), conference registration (\$100), per diem (\$50/day x 4 day), and ground transportation/parking (\$50).

# **Budget Justification: Travel**

The PI and one student researcher will travel each year to conferences such as the regional meeting of the American Gootch Society (Mt. Crumpit, AK) or the World Wumbus annual meeting (Katroo, ZN) to disseminate project results, build professional networks, and obtain valuable exposure to the research community. (The PI has co-presented with 4 student researchers at these types of professional conferences in the past 7 years.) Costs follow standard university travel policies and are estimated at \$1,250 per person and include airfare (\$450), lodging (\$150/night x 3 night), conference registration (\$100), per diem (\$50/day x 4 day), and ground transportation/parking (\$50).

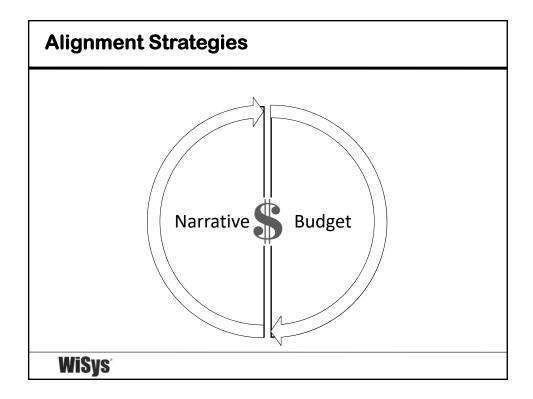
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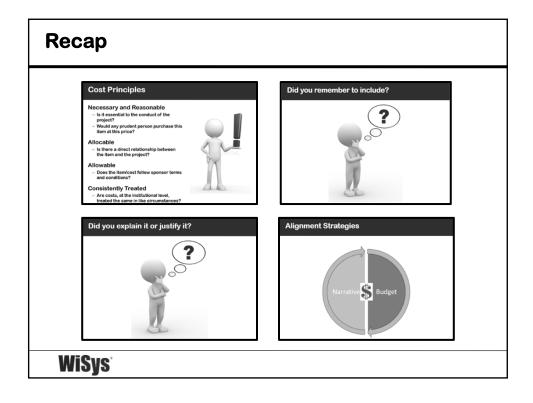
# **Budget Explanation: Materials & Supplies**

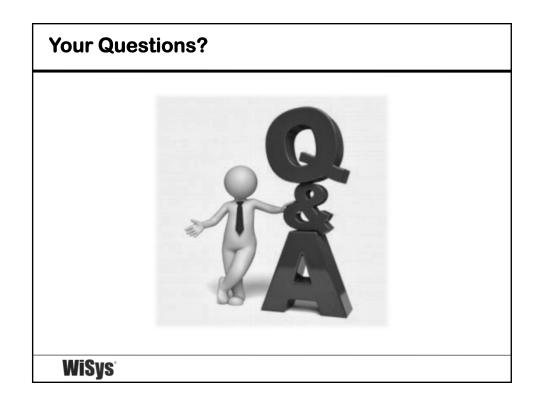
Supply costs are budgeted at \$5,600 per year and include specimen containers, labels, disposable gloves, field notebooks, chemicals, reagents, and glassware.

# **Budget Justification: Materials & Supplies**

Supply costs are budgeted at \$5,600 per year and include field expenses (\$1,600) for data collection, such as specimen containers, labels, disposable gloves, and field notebooks, and laboratory expenses (\$4,000) for data analysis, such as chemicals, reagents, and glassware. These costs are reasonable based on the PI's experience with prior research projects that have a comparable scope and number of undergraduate students.







# **Grant Professional Development Opportunities**

2018-19 GRANT WEBINAR SCHEDULE:

OCTOBER 11, 2018
2:00-2:45PM
Funding Opportunities for Your Teaching,
Research & Scholarship

NOVEMBER 8, 2018
2:00-2:45PM
The Sustainability Challenge: Designing
Projects for Success Beyond the Grant Period

DECEMBER 13, 2018
2:00-2:45PM
Preproposal Contacts: Who You Need to Talk
to & What You Need to Know Before Writing
Your Next Grant Proposal

FEBRUARY 14, 2019
2:00-2:45PM
Common Grant Writing Pitfalls - and How to
Avoid Them

MARCH 7, 2019
2:00-2:45PM
Building a Beflevable Budget

APRIL 11, 2019
2:00-2:45PM
Collaborative Grantseeking: Accumulating
Precious "Wins" & Avoiding Painful "Losses"

See full session descriptions and register online for FREE at www.wisys.org/grants/webinars.

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# **Go Write Your Best Grant Ever!**



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