

# Building a *Believable* Budget

Jeremy T. Miner  
WiSys Regional Research Administrator  
jminer@wisys.org



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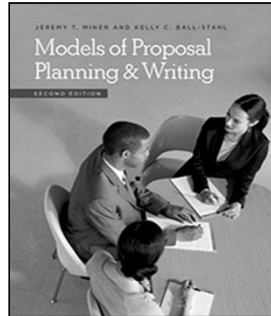
## Session Overview

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

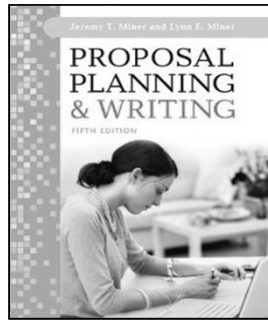


## Grant Writing Resources

### Grant Writing Resources



Greenwood, 2016



Greenwood, 2013

ABC-CLIO  
GREENWOOD™  
[www.greenwood.com](http://www.greenwood.com)



Greenwood, 2011

WiSys™

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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.”**

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Item Description	Year 1
<b>Salary &amp; Wages: Senior Personnel</b>	
<ul style="list-style-type: none"> <li>PI 1.5 months summer + Two 3-credit course release (IBS=\$55K)</li> <li>Adjunct backfill (Two 3-credit courses @\$1500/credit)</li> <li>Co-PI 1.5 months summer (IBS=\$53K)</li> </ul>	<p>\$20,167</p> <p>\$9,000</p> <p>\$8,833</p>
<b>Fringe Benefits</b>	
<ul style="list-style-type: none"> <li>PI @ 44%</li> <li>Adjunct @ 44%</li> <li>Co-PI @ 44%</li> <li>Evaluator @ 44%</li> </ul>	<p>\$9,277</p> <p>\$4,140</p> <p>\$4,063</p> <p>\$2,760</p>
<b>Evaluator</b> (\$500/day x 12 day)	\$6,000
<b>Participant Support Costs</b>	
<ul style="list-style-type: none"> <li>Stipends (30 people x \$250/wk x 2 wk)</li> <li>Mileage (30 people x 100 mi/wk x 2 wk)</li> <li>Lodging (15 people x \$89/night x 4 night/wk x 2 wk)</li> <li>Food (\$10/person x 30 people x 10 day)</li> <li>Books and handouts for 30 people (\$50/book x 2 book/person + \$5/packet)</li> <li>Teacher substitutes (\$105/day x 4 days x 30 people)</li> </ul>	<p>\$15,000</p> <p>\$3,270</p> <p>\$10,680</p> <p>\$3,000</p> <p>\$3,150</p> <p>\$12,600</p>
<b>Other Supplies and Expenses</b>	
<ul style="list-style-type: none"> <li>PI and Co-PI travel to schools (average 1200 mi/year each)</li> <li>PI and Co-PI travel to required sponsor annual meeting</li> </ul>	<p>\$1,308</p> <p>\$500</p>
<b>Direct Costs</b>	\$113,748
<b>Indirect Costs @ 8% TDC</b>	\$9,100
<b>TOTAL REQUEST</b>	\$122,848

Budget Justification
<p><b>Senior Personnel</b></p> <p>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.</p>
<p><b>Fringe Benefits</b></p> <p>Fringe benefits follow the standard rate set for faculty and academic staff at 44%.</p>
<p><b>Evaluator</b></p> <p>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.</p>
<p><b>Participant Support Costs</b></p> <p>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.</p>
<p><b>Other Supplies and Expenses</b></p> <p>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.</p>

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

Budget Justification
<p><b>Senior Personnel</b>                      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. <b>The PI will also administer the program and facilitate follow-up activities during the academic year.</b> Accordingly, an Adjunct will <b>backfill</b> for one of the PI's courses in the fall semester and one in the spring semester.</p>
<p><b>Fringe Benefits</b>                      Fringe benefits follow the standard rate set for faculty and academic staff at 44%.</p>
<p><b>Evaluator</b>                      A member of the <b>Business faculty</b> with expertise in qualitative and quantitative methodologies and statistical analysis will serve as the project evaluator at a <b>consultant rate</b> of \$500/day for 12 days.</p>
<p><b>Participant Support Costs</b>                      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. <b>Food is estimated at \$10/teacher per day and includes morning coffee and a boxed lunch from a local restaurant.</b> Two <b>books</b> (\$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 – <b>twice in the fall and twice in the spring</b> – to support coaching, peer observation, collaboration and planning time, and program feedback.</p>
<p><b>Other Supplies and Expenses</b>                      The PI and Co-PI will <b>facilitate follow-up activities during the academic year, driving an estimated 1200 miles/year each</b> 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.</p>

## Grant Budgets



“With this much grant money, only experiment we can do is ‘flip a coin’.

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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 Terminology

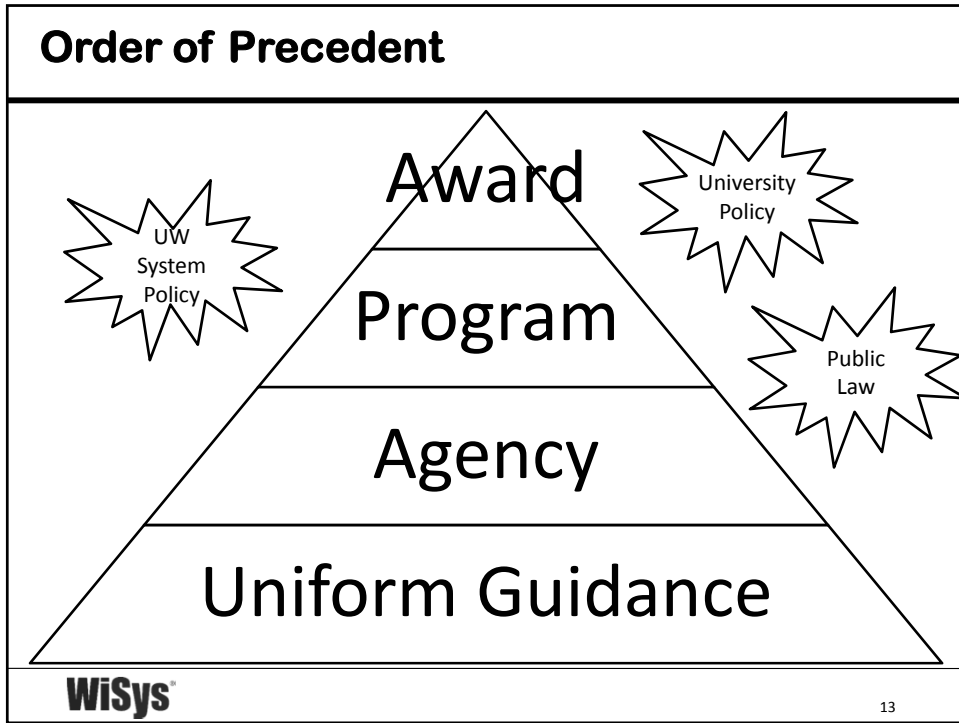
- **Direct costs = costs that can be tied to a specific grant project.**
  - Personnel
  - Fringe benefits
  - Equipment
  - Supplies
  - Travel
  - Consultants
  
- **Indirect costs = real costs incurred by an institution but that cannot be tied to a specific grant project.**
  - Facilities & Administrative Costs (Federal)
  - Administrative Costs (Foundation)
  - Overhead (Corporate)

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## Budget: Items

- |                   |                     |                      |
|-------------------|---------------------|----------------------|
| • Accounting      | • Indirect costs    | • Renovation         |
| • Advertising     | • Instruments       | • Rent               |
| • Animals         | • Insurance         | • Repairs            |
| • AV instruction  | • Internet          | • Salaries and wages |
| • Auditing        | • Legal services    | • Security           |
| • Binding         | • Lodging           | • Subawards          |
| • Books           | • Maintenance       | • Subcontracts       |
| • Computers       | • Per diem          | • Supplies           |
| • Construction    | • Periodicals       | • Telephone          |
| • Consultants     | • Postage           | • Travel             |
| • Dues            | • Publications      | • Tuition            |
| • Equipment       | • Recruitment       | • Utilities          |
| • Fringe Benefits | • Registration fees | • Visas              |
|                   | • Relocation        |                      |

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**Compensation – Personal Services §200.430**

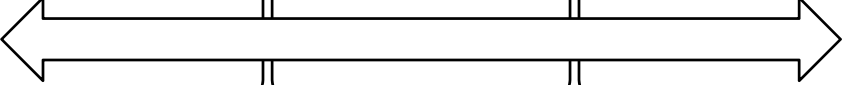
- Salary Basis – institutional base salary rate
- Intra-Institution of Higher Education Consulting – assumed to be undertaken as an IHE obligation requiring no compensation
- Extra Service Pay – overload compensation, subject to institutional policy
- Periods Outside the Academic Year – institutional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

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### Can it be charged to a Federal grant?

 <b>Alcohol</b> §200.423	 <b>Office Supplies</b> §200.314	 <b>Travel</b> §200.474
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### Did you remember to include?



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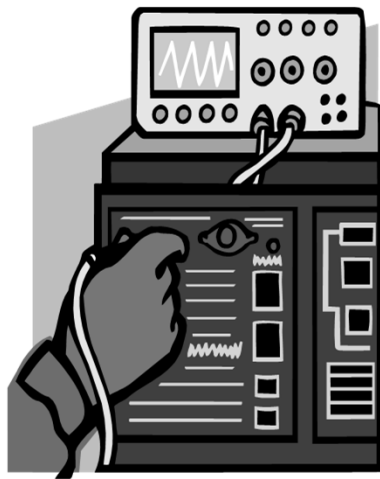
## Personnel

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



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## Equipment



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

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## Curriculum Development



- Planned curriculum development includes summer stipends, student wages, office supplies, local travel
- Fringe benefits?
- Meeting refreshments?
- Library acquisitions?
- Dissemination costs?

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## Is the budget believable?



	Year 1	Year 2	Year 3
<b>Salary &amp; Wages</b>			
• PI 2 months summer (IBS=\$60K)	\$13,333	\$13,333	\$13,333
• 4 UG students summer (40hr/wk x 5wk x \$10/hr)	\$8,000	\$8,000	\$8,000
<b>Fringe Benefits</b>			
• PI @ 50%	\$6,667	\$6,667	\$6,667
• Students @ 3%	\$240	\$240	\$240
<b>Equipment</b>			
• Widget Analyzer	\$20,000	\$0	\$0
<b>Travel</b>			
• PI + 2 Student to conference (\$1,750/ea)	\$5,250	\$5,250	\$5,250
<b>Materials and Supplies</b>			
• Consumables (\$100/mo x 12 mo)	\$1,200	\$1,200	\$1,200
• Lunch & Learns (\$60/event x 6 event)	\$360	\$360	\$360
<b>Publication</b>			
• Page charges	\$500	\$500	\$500
<b>Consultants</b>			
• Evaluator	\$5,555	\$3,555	\$3,555
<b>Direct Costs</b>	\$61,105	\$39,105	\$39,105
<b>Indirect Costs @ 45% Salary + FB</b>	\$12,708	\$12,708	\$12,708
<b>TOTAL REQUEST</b>	\$73,813	\$51,813	\$51,813

**Case study**

### Is the budget believable?

	Year 1	Year 2	Year 3
<b>Salary &amp; Wages</b>			
• PI 2 months summer (IBS=\$60K)	\$13,333	\$13,333	\$13,333
• 4 UG students summer (40hr/wk x 5wk x \$10/hr)	\$8,000	\$8,000	\$8,000
<b>Fringe Benefits</b>			
• PI @ 50%	\$6,667	\$6,667	\$6,667
• Students @ 3%	\$240	\$240	\$240
<b>Equipment</b>			
• Widget Analyzer	\$20,000	\$0	\$0
<b>Travel</b>			
• PI + 2 Student to conference (\$1,750/ea)	\$5,250	\$5,250	\$5,250
<b>Materials and Supplies</b>			
• Consumables (\$100/mo x 12 mo)	\$1,200	\$1,200	\$1,200
• Lunch & Learns (\$60/event x 6 event)	\$360	\$360	\$360
<b>Publication</b>			
• Page charges	\$500	\$500	\$500
<b>Consultants</b>			
• Evaluator	\$5,555	\$3,555	\$3,555
<b>Direct Costs</b>	\$61,105	\$39,105	\$39,105
<b>Indirect Costs @ 45% Salary + FB</b>	\$12,708	\$12,708	\$12,708
<b>TOTAL REQUEST</b>	<b>\$73,813</b>	<b>\$51,813</b>	<b>\$51,813</b>

### Did you explain it or justify it?

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## Budget Explanations vs. Justifications

	Year 1	Year 2	Year 3
<b>Salary &amp; Wages</b>			
• PI 1.35 months summer (IBS=\$60K; 4% COLA)	\$9,000	\$9,360	\$9,734
• 4 UG students summer (40hr/wk x 10wk x \$10/hr)	\$16,000	\$16,000	\$16,000
<b>Fringe Benefits</b>			
• PI @ 50%	\$4,500	\$4,680	\$4,867
• Students @ 3%	\$480	\$480	\$480
<b>Equipment</b>			
• Widget Analyzer (includes shipping and maintenance plan)	\$20,000	\$0	\$0
<b>Travel</b>			
• PI + 1 Student to conference (\$1,250/ea)	\$2,500	\$2,500	\$2,500
<b>Materials and Supplies</b>			
• Chemicals, reagents, glassware	\$5,600	\$5,600	\$5,600
<b>Publication</b>			
• Page charges	\$0	\$750	\$1,500
<b>Consultants</b>			
• Evaluator	\$5,000	\$5,000	\$6,500
<b>Direct Costs</b>	\$63,080	\$44,370	\$47,182
<b>Indirect Costs @ 45% Salary + FB</b>	\$22,491	\$13,734	\$13,987
<b>TOTAL REQUEST</b>	\$85,571	\$58,104	\$61,168

## 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 Zummings. 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.

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## 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.

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## 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.

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## Budget Explanation: Fringe Benefits

- **Senior Personnel**

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

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## 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.

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## Budget Explanation: Fringe Benefits

- **Other Personnel**

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

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## 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%).

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## 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.

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## 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  $\beta$ f. 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.

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## 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).

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## 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.

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### **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.

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### **Budget Explanation: Publication**

Funds totaling \$2,250 are requested to support page charges associated with publishing in peer-reviewed journals.

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## Budget Justification: Publication

Funds totaling \$2,250 are requested to support page charges associated with publishing in peer-reviewed journals. Beginning in Year 2 and continuing in Year 3, the PI will disseminate project findings in prominent journals such as The Journal of Sala-ma-goox, Midwinter Jicker, and The International Annals of Skritz. The current rate for pages charges is \$75/page, thus 2 five-page articles in Year 2 would cost \$750 and 4 five-age articles in Year 3 would cost \$1,500. Of note, the PI has a recent history of publication in Midwinter Jicker.

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## Budget Explanation: Consultant

The services of an independent evaluator will be enlisted to conduct formative and summative assessments of the project. At a consultant rate of \$500/day the evaluator will spend 10 days on the project in Year 1, 10 days in Year 2, and 13 days in Year 3, for a total of \$16,500.

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## Budget Justification: Consultant

The services of an independent evaluator, Dr. Sam I. Am, Director of Outcomes Evaluation, Anville University, will be enlisted to conduct formative and summative assessments of the project. The evaluator will assess the program annually for usability, satisfaction, and efficacy, and add a sophisticated return-on-investment analysis in the final year. At a consultant rate of \$500/day the evaluator will spend 10 days on the project in Year 1, 10 days in Year 2, and 13 days in Year 3, for a total of \$16,500.



## Grant Professional Development Opportunities



Join WiSys Regional Research Administrator *Jeremy Miner* in exploring various aspects of successful grant writing through an all-new webinar series.

Sessions will each include 60 minutes of presentation and an optional 15 minutes for Q&A.

### How to Attend:

- IN PERSON:** Learn alongside your colleagues on campus at the locations listed with the opportunity for networking and discussion
- VIRTUALLY:** Contact [jeremy@wsysuscar.edu](mailto:jeremy@wsysuscar.edu) for information on joining the webinars remotely



### SPRING 2018 WEBINAR SCHEDULE:

**FEBRUARY 1, 2018**  
2:00-3:15PM  
SWENSON 2074  
\*Humanities & Social Sciences: Getting Funded, Getting Published\*

**FEBRUARY 8, 2018**  
2:00-3:15PM  
SWENSON 2074  
\*Building a Believable Budget\*

**MARCH 1, 2018**  
2:00-3:15PM  
SWENSON 2074  
\*Funding Opportunities for Your Teaching, Research & Scholarship\*

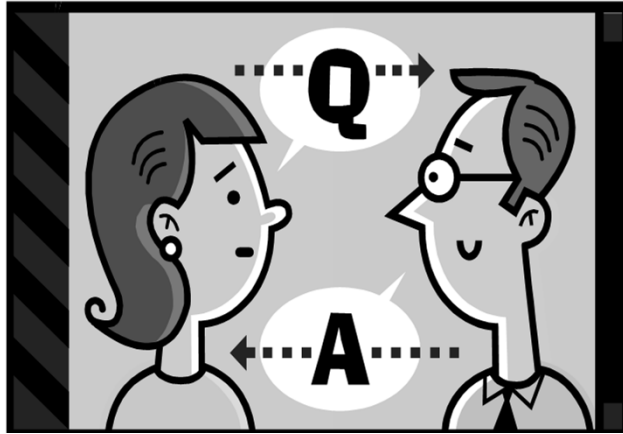
**MARCH 8, 2018**  
2:00-3:15PM  
SWENSON 2074  
\*Goals, Objectives & Outcomes: The "GOO" that Holds a Proposal Together\*

**APRIL 5, 2018**  
2:00-3:15PM  
SWENSON 2074  
\*Half Points Making Your Grant Proposal Distinctively Different\*

FOR FULL SESSION DESCRIPTIONS, VISIT:  
[www.wsys.org/grants/webinars](http://www.wsys.org/grants/webinars)



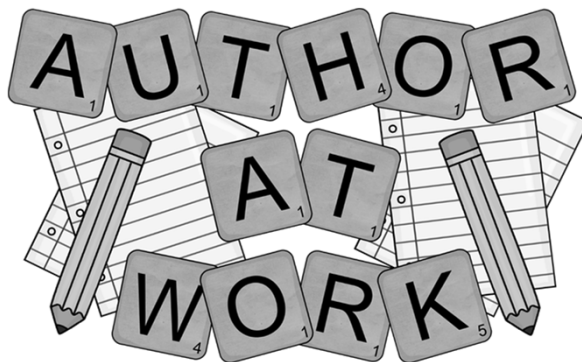
## Your Questions?



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## Go Write Your Best Grant Ever!



Jeremy T. Miner  
jminer@wisys.org

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