

Collaborative Research: Resource of Open Problems for Education (ROPE)

Budget Justification

Dana C. Ernst

A. PERSONNEL

PI Ernst requests one month's summer salary and the associated fringe benefits each year for 3 years. We have assumed a salary increase of 3% per year. During the funding period, the PI will work intensively on the specific tasks listed in the project description and other related items.

Subtotal: \$25,318

B. OTHER PERSONNEL

None.

Subtotal: \$0

C. FRINGE BENEFITS

Fringe benefits were calculated using NAU formulas for benefit rates for FY 2013 (19.8%).

Subtotal: \$5,014

D. EQUIPMENT

None.

Subtotal: \$0

E. TRAVEL

Travel funds are requested to allow the PI to attend national mathematics meetings to disseminate information about ROPE to allow for face-to-face team meetings. Travel to the collaborative PIs' institutions is also planned for meetings with the Advisory Group and External Evaluator. In Year 3, funds are included to support undergraduate travel to the Joint Mathematical Meetings where they will have a demonstration of ROPE and help staff our booth in the exhibit area at the JMM.

Year 1: The PI is requesting a total of \$3,611.

- \$1,935 for travel to the Joint Mathematics Meetings to meet with PIs.
 - \$240 Registration Fee
 - \$600 Airfare to Seattle, WA
 - \$800 for lodging (\$200 per night for 4 nights)
 - \$295 for food (\$44 per diem rate for 5 days)
- \$917 for travel to the University of Michigan to meet with PIs and Advisory Group.
 - \$600 Airfare to Ann Arbor, MI
 - \$200 for lodging (\$100 per night for 2 nights)

- \$117 for food (\$39 per diem rate for 3 days)
- \$1,681 for travel to MathFest to meet with PIs and External Evaluator.
 - \$300 Registration Fee
 - \$600 Airfare to Columbus, OH
 - \$605 for lodging (\$200 per night for 3 nights)
 - \$176 for food (\$44 per diem rate for 4 days)

Year 2: The PI is requesting a total of \$3,596.

- \$1,860 for travel to the Joint Mathematics Meetings to meet with PIs.
 - \$240 Registration Fee for PI
 - \$600 Airfare to Atlanta, GA
 - \$800 for lodging (\$200 per night for 4 nights)
 - \$220 for food (\$44 per diem rate for 5 days)
- \$1,736 for travel to MathFest to meet with PIs and External Evaluator.
 - \$300 Registration Fee
 - \$600 Airfare to Chicago, IL.
 - \$600 for lodging (\$200 per night for 3 nights)
 - \$236 for food (\$59 per diem rate for 4 days)

Year 3: The PI is requesting a total of \$7,111.

- \$5,320 for travel to the Joint Mathematics Meetings to meet with PIs.
 - \$240 Registration Fee for PI
 - \$110 Registration Fee for undergraduate students (\$55 student registration fee for two students)
 - \$1,800 Airfare to San Diego, CA (\$600 each for PI and two students)
 - \$2,400 for lodging (\$200 per night for 4 nights each for PI and two students)
 - \$660 for food (\$44 per diem rate for 5 days each for PI and two students)
- \$1,676 for travel to MathFest to meet with PIs and External Evaluator.
 - \$300 Registration Fee
 - \$600 Airfare to Denver, CO.
 - \$600 for lodging (\$200 per night for 3 nights)
 - \$176 for food (\$44 per diem rate for 5 days each for PI and two students)

Subtotal: \$14,318

F. PARTICIPANT SUPPORT COSTS

None.

Subtotal: \$0

G. OTHER DIRECT COSTS

None.

Subtotal: \$0

H. TOTAL DIRECT COSTS

The total direct cost is the sum of summer salaries, fringe benefits, and travel for years 1–3.

Subtotal: \$44,650

I. INDIRECT COSTS

Indirect costs are calculated based on Northern Arizona University's Colleges and Universities Rate Agreement, which stipulates an on-campus rate of 50% MTDC in year 1 and 52% in years 2 and 3, with exclusions for tuition, equipment, and subawards greater than \$25,000.

Subtotal: \$23,217

J. TOTAL DIRECT AND INDIRECT COSTS

This is the sum of items H and I.

Total: \$67,867

K. RESIDUAL FUNDS

None.

Subtotal: \$0

L. AMOUNT OF THIS REQUEST

This is the sum of items J and K.

Total: \$67,867