



SOCIETY OF
RESEARCH
ADMINISTRATORS
INTERNATIONAL

The TFFA Conundrum: Understanding and Navigating NIFA's Indirect Rules

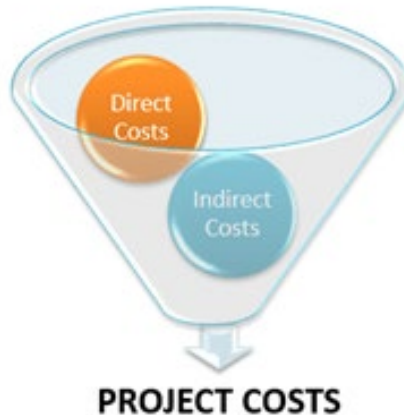
Megan E. Moore, MBA, CRA
Senior Pre-Award Associate
megmoo@vt.edu



Agenda

- Important Definitions and Calculations
 - Math Question #1
- How does NIFA differ?
 - What does “Total Federal Funds Awarded” (TFFA) Mean?
 - Math Question #2
 - TFFA is the maximum indirect you can charge
 - Math Question #3
 - Subawardee indirect must be considered in TFFA calculations
 - Math Questions #4 & 5
- Virginia Tech’s TFFA Calculator Demo
- Questions/Discussion
- References

Important Definitions and Equations



Direct Cost Definition

- Per 2 CFR 200.413, these are “costs that can be identified specifically with a particular final cost objective, such as a Federal award... or that can be directly assigned to such activities easily with a high degree of accuracy.”
- They must be: reasonable, allocable, allowable, and consistently treated.

DIRECT COSTS

Expenses that directly go into producing goods or providing services



Direct Labor



Direct Materials



Manufacturing
Supplies

Personnel Direct Costs

Section	Year 1			Year 2		
	# Personnel	Months	Funds	# Personnel	Months	Funds
➔ A. Senior Personnel [Manage]	1	0.50	\$2,786	1	0.50	\$2,926
Megan Moore (PI)		<input type="text" value="0.5"/>	<input type="text" value="\$ 2,786"/>		<input type="text" value="0.5"/>	<input type="text" value="\$ 2,926"/>
➔ B. Other Personnel ⓘ	2		\$62,374	2		\$65,494
Postdoctoral Scholars ⓘ	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="\$ 0"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="\$ 0"/>
Other Professionals	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="\$ 0"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="\$ 0"/>
Graduate Students	<input type="text" value="2"/>		<input type="text" value="\$ 62,374"/>	<input type="text" value="2"/>		<input type="text" value="\$ 65,494"/>
Undergraduate Students	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>
Administrative/Clerical	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>
Other	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>	<input type="text" value="0"/>		<input type="text" value="\$ 0"/>
➔ C. Fringe Benefits			\$6,689			\$7,024
			<input type="text" value="\$ 6,689"/>			<input type="text" value="\$ 7,024"/>
Total Salaries, Wages & Fringe Benefits (A-C)			\$71,849			\$75,444

C. Equipment Description

List items and dollar amount for each item exceeding \$5,000

Equipment item

* Funds Requested (\$)

1 High Performance Refrigerated Centrifuge

5,034



New Equipment Row

Indirect Cost Type Excluded

Total Equipment 5,034

D. Travel

Funds Requested (\$)

1. Domestic Travel Costs (Incl. Canada, Mexico and U.S. Possessions)

4,900

2. Foreign Travel Costs

4,900

Indirect Cost Type Research_F

Total Travel Cost

E. Participant/Trainee Support Costs

Funds Requested (\$)

1. Tuition/Fees/Health Insurance

1,000

2. Stipends

6,000

3. Travel

4. Subsistence

5. Other

Number of Participants/Trainees 3

Total Participant/Trainee Support Costs

7,000

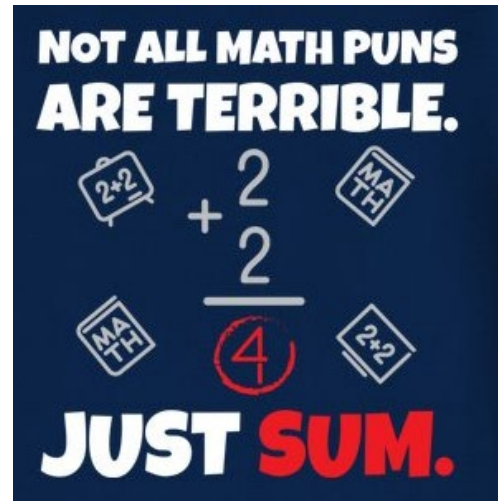
Indirect Cost Type Excluded

F. Other Direct Costs

	Funds Requested (\$)
1. Materials and Supplies	12,000.00
2. Publication Costs	4,000.00
3. Consultant Services	
4. ADP/Computer Services	
5. Subawards/Consortium/Contractual Costs	74,002.00
6. Equipment or Facility Rental/User Fees	
7. Alterations and Renovations	
8. RNA-, In-, Sanger sequencing service center costs	15,000.00
9. GRA Tuition	12,000.00

The equation to calculate total direct costs (TDC):

Personnel + Fringes + Equipment + Travel + Participant Support Costs + all Other Direct Costs (including subawardee costs) = Total Direct Costs (TDC)



Indirect (or Facility & Administrative) Cost Definition

- Per 2 CFR 200.414, these are real costs incurred by an organization, but cannot be directly charged to the project. Split into 2:
 - Facilities costs: depreciation on buildings; equipment/capital improvement; etc.
 - Administrative costs: general administration expenses (i.e. OSP salaries); etc.



The equation used to calculate total indirect costs:

Indirect Base (\$) * Indirect Rate (%) = Total Indirect Cost (\$)



Indirect Base Calculation

2 frequent ways to calculate the indirect base are:

- Total Direct Costs (TDC)

Indirect Base (\$) = Total Direct Costs

- Modified Total Direct Costs (MTDC)

Indirect Base (\$) = TDC – tuition – equipment – facility/equipment rental costs – facility alteration/renovation costs – participant support costs – subaward costs over the first \$25,000 per subawardee

What did one math book say to the other?

Don't bother me! I've got my own problems.

Indirect Rates

- Indirect rates are negotiated with a cognizant agency (ONR or DHHS), and given in a Negotiated Indirect Cost Rate Agreement (NICRA)
- Appendices III, IV, and VII of 2 CFR 200 give detail about calculating indirect rates for negotiation.
- Administrative indirect costs are capped at 26% of modified total direct costs for all Institutes of Higher Education (IHE's).



DEPARTMENT OF THE NAVY

OFFICE OF NAVAL RESEARCH
875 NORTH RANDOLPH STREET
SUITE 1425
ARLINGTON, VA 22203-1995

IN REPLY REFER TO:

Agreement Date: April 26, 2021

NEGOTIATION AGREEMENT

Institution: **VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
BLACKSBURG, VIRGINIA 24061**

The Facility and Administrative (F&A) cost rates contained herein are for use on grants, contracts and/or other agreements issued or awarded to the Virginia Polytechnic Institute and State University by all Federal Agencies of the United States of America, in accordance with the cost principles mandated by 2 CFR Part 200. These rates shall be used for forward pricing and billing purposes for the Virginia Polytechnic Institute and State University Fiscal Years 2022 through 2024. This rate agreement supersedes all previous rate agreements/determinations related to these rates for Fiscal Years 2022 through 2024.

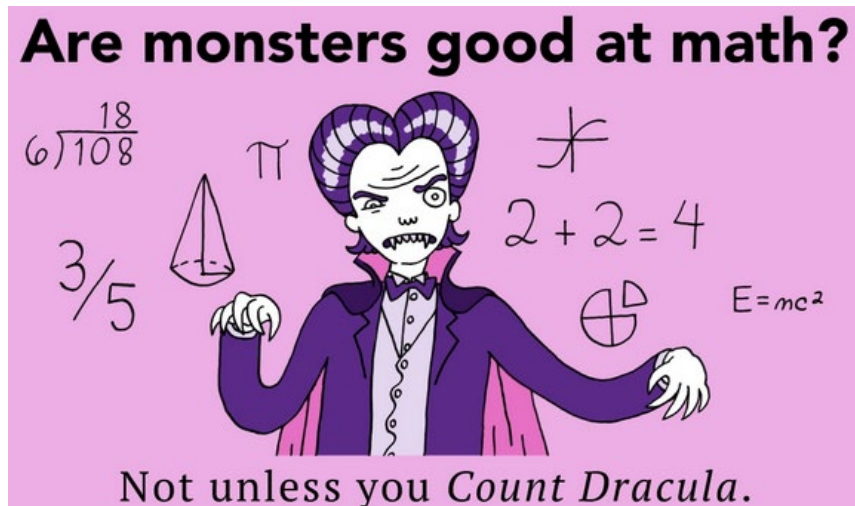
Section I: RATES - TYPE: PREDETERMINED (PRED)

Facility and Administrative Cost Rates:

<u>Type</u>	<u>From</u>	<u>To</u>	<u>Rate</u>	<u>Base</u>	<u>Applicable To</u>	<u>Location</u>
PRED	7/1/2021	6/30/2024	60.00%	(a)	Organized Research (1)	On Campus
PRED	7/1/2021	6/30/2024	63.00%	(a)	Organized Research (2)	On Campus
PRED	7/1/2021	6/30/2024	27.50%	(a)	Organized Research (1)	Off Campus Adjacent*
PRED	7/1/2021	6/30/2024	30.50%	(a)	Organized Research (2)	Off Campus Adjacent

The equation to calculate total project costs is:

Total Direct Costs (TDC) + Total Indirect Costs (IDC) = Total Project Costs (TPC)



Math Question #1

A PI has requested the following costs on a budget:

- \$74,002 in personnel and fringe costs
- \$10,000 for equipment
- \$12,000 for travel
- \$4,000 for materials/supplies (M/S)
- \$17,000 for graduate student tuition

If the indirect rate is 30%, what is the total project cost if the indirect base used is TDC? What about if an MTDC indirect base is used?

Answer using TDC indirect base

\$74,002 personnel/fringe + \$10,000 equipment +
\$12,000 travel + \$4,000 M/S + \$17,000 tuition =
\$117,002 total direct costs

\$117,002 TDC * 30% indirect rate = **\$35,101 total indirect cost**

\$117,002 TDC + \$35,101 total indirect costs =
\$152,103 total project cost

Answer using MTDC indirect base

Per last slide, we know the total direct costs are \$117,002, so:

\$117,002 TDC - \$10,000 equipment - \$17,000 tuition = **\$90,002 modified total direct cost**

\$90,002 MTDC * 30% indirect rate = **\$27,001 total indirect cost**

\$117,002 TDC + \$27,001 total indirect costs = **\$144,003 total project costs**

How does NIFA differ?



National Institute of Food and Agriculture
UNITED STATES DEPARTMENT OF AGRICULTURE



HOME

National Agricultural
Research, Extension, and
Teaching Policy Act of 1977

Funding Restrictions

Indirect Cost (IDC) not to exceed 30 percent of Total Federal Funds Awarded (TFFA) of the recipient.

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 7 U.S.C. 3310(a) limits IDC for the overall award to 30 percent of Total Federal Funds Awarded (TFFA) under a research, education, or extension grant. The maximum IDC rate allowed under the award is determined by calculating the amount of IDC using:

1. The sum of an institution's negotiated indirect cost rate and the indirect cost rate charged by sub-awardees, if any; or
2. 30 percent of TFFA.

The maximum allowable IDC rate under the award, including the IDC charged by the sub-awardee(s), if any, is the lesser of the two rates.

What does “Total Federal Funds Awarded” (TFFA) mean?

- Total Federal Funds Awarded (TFFA) = Total Project Costs (TPC)
- Therefore, NIFA caps indirect at 30% of total project costs.
- Thus, to calculate indirect needed for a NIFA project, you MUST already know the total project cost... But how?

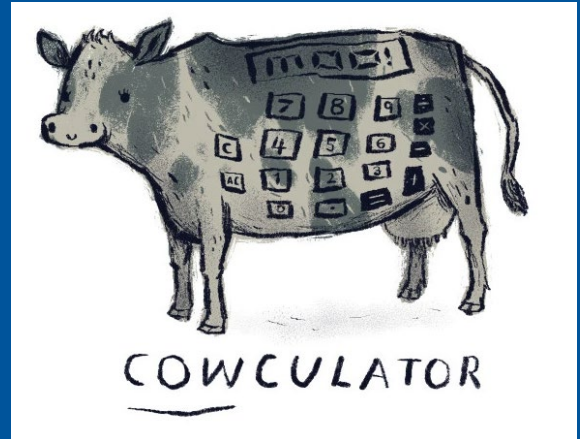
With 2 steps/equations:

1) Use the total direct costs to find the total project cost:

Total Direct Costs / (1 – Indirect Rate %) = Total Project Costs (TPC)

2) Then, use TPC to find the total indirect costs:

Total Project Costs – Total Direct Costs = Total Indirect Costs



Math Question #2

A PI has requested the following costs on a budget:

- \$74,002 in personnel and fringe costs
- \$10,000 for equipment
- \$12,000 for travel
- \$4,000 for materials/supplies (M/S)
- \$17,000 for graduate student tuition

If the indirect rate is capped at 30% TFFA, what is the total project cost? What is the total indirect cost?

Answer with TFFA capped indirect

\$74,002 personnel/fringe + \$10,000 equipment +
\$12,000 travel + \$4,000 M/S + \$17,000 tuition =
\$117,002 total direct costs

\$117,002 TDC / (1 – 30% indirect cap) = **\$167,146**
total project cost (TPC)

\$167,146 TPC – \$117,002 TDC = **\$50,144 total**
indirect cost

Important Note #1

Even though the Total Direct Costs base is used to calculate TFFA indirect rates, 30% TFFA capped indirect is NOT the same as 30% TDC indirect.

30% TDC calculation example: \$152,103 total project cost with \$35,101 total indirect cost

30% TFFA calculation example: \$167,146 total project cost with \$50,144 total indirect cost

But you can convert it!

Even though 30% TFFA capped indirect does not equal 30% of TDC indirect, it can be converted into TDC to make calculations easier using this equation: **Total Indirect Cost / Total Direct Costs**

What's the math teacher's
favorite dessert?

Pi.

\$50,144 total indirect cost / \$117,002 total direct costs = **42.857% TDC indirect**

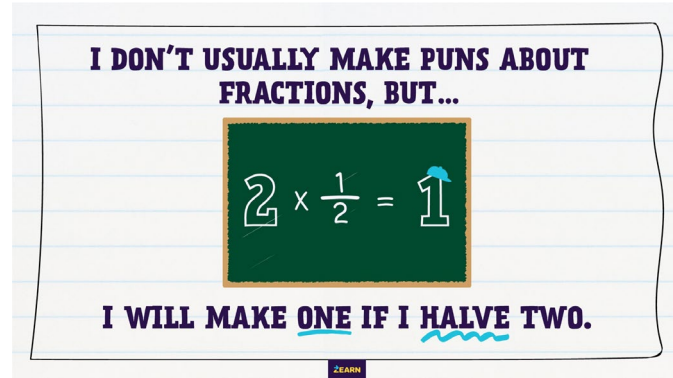
Important Note #2

This always means that:
30% TFFA capped indirect
= 42.857% TDC indirect

To put it all together:

For NIFA proposals, you can use 42.857% TDC indirect in your budget to calculate the 30% TFFA indirect amount.

Total Direct Costs * 42.857% TDC indirect = 30% TFFA indirect cap



Funding Restrictions

Indirect Cost (IDC) not to exceed 30 percent of Total Federal Funds Awarded (TFFA) of the recipient.

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 7 U.S.C. 3310(a) limits IDC for the overall award to 30 percent of Total Federal Funds Awarded (TFFA) under a research, education, or extension grant. The maximum IDC rate allowed under the award is determined by calculating the amount of IDC using:

1. The sum of an institution's negotiated indirect cost rate and the indirect cost rate charged by sub-awardees, if any; or
2. 30 percent of TFFA.

The maximum allowable IDC rate under the award, including the IDC charged by the sub-awardee(s), if any, is the lesser of the two rates.

TFFA is the maximum indirect you can charge

30% TFFA is the maximum indirect you are allowed to charge, but you are required to charge less indirect than that if you're able.

Thus, if your negotiated indirect rates give you less total indirect cost than 30% TFFA, you are required to use those rates instead!

Math Question #3

A PI has requested the following costs on a budget:

- \$74,002 in personnel and fringe costs
- \$10,000 for equipment
- \$12,000 for travel
- \$4,000 for materials/supplies (M/S)
- \$17,000 for graduate student tuition

If your organization's negotiated indirect rate is 50% MTDC, should you use it or the 30% TFFA cap to calculate total indirect cost?

Answer using TFFA capped indirect

\$74,002 personnel/fringe + \$10,000 equipment +
\$12,000 travel + \$4,000 M/S + \$17,000 tuition =
\$117,002 total direct costs

\$117,002 TDC * 42.857% indirect rate = **\$50,144**
total indirect costs (IDC)

\$117,002 TDC + \$50,144 IDC = **\$167,146 total**
project costs

Answer using MTDC indirect base

Per last slide, we know the total direct costs are \$117,002, so:

\$117,002 TDC - \$10,000 equipment - \$17,000 tuition = **\$90,002 modified total direct cost**

\$90,002 MTDC * 50% indirect rate = **\$45,001 total indirect cost (IDC)**

\$117,002 TDC + \$45,001 IDC = **\$162,003 total project costs**

Which one do you use?

30% TFFA calculation example: \$50,144 total indirect costs

50% MTDC calculation example: \$45,001 total indirect cost

You will use your normal 50% MTDC indirect rates for this NIFA budget because it gives you less total indirect costs charged!

Remember to check your math!

You can check your math when determining which indirect rate to use with this equation:

Total Indirect Cost (IDC) / Total Project Cost (TPC)

Your selection should be at or below the 30% TFFA cap!

Which triangle is the coldest?

An ice-roseles triangle!

30% TFFA calculation example: \$50,144 IDC /
\$167,146 TPC = 30% TFFA

50% MTDC calculation example: \$45,001 IDC /
\$162,003 TPC = 27.78% TFFA

Funding Restrictions

Indirect Cost (IDC) not to exceed 30 percent of Total Federal Funds Awarded (TFFA) of the recipient.

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 7 U.S.C. 3310(a) limits IDC for the overall award to 30 percent of Total Federal Funds Awarded (TFFA) under a research, education, or extension grant. The maximum IDC rate allowed under the award is determined by calculating the amount of IDC using:

1. The sum of an institution's negotiated indirect cost rate and the indirect cost rate charged by sub-awardees, if any; or
2. 30 percent of TFFA.

The maximum allowable IDC rate under the award, including the IDC charged by the sub-awardee(s), if any, is the lesser of the two rates.

Subawardee indirect must be considered in TFFA calculations

The lead organization must add together their indirect costs and their subs' indirect costs. The total of everyone's indirect costs must not exceed 30% TFFA.

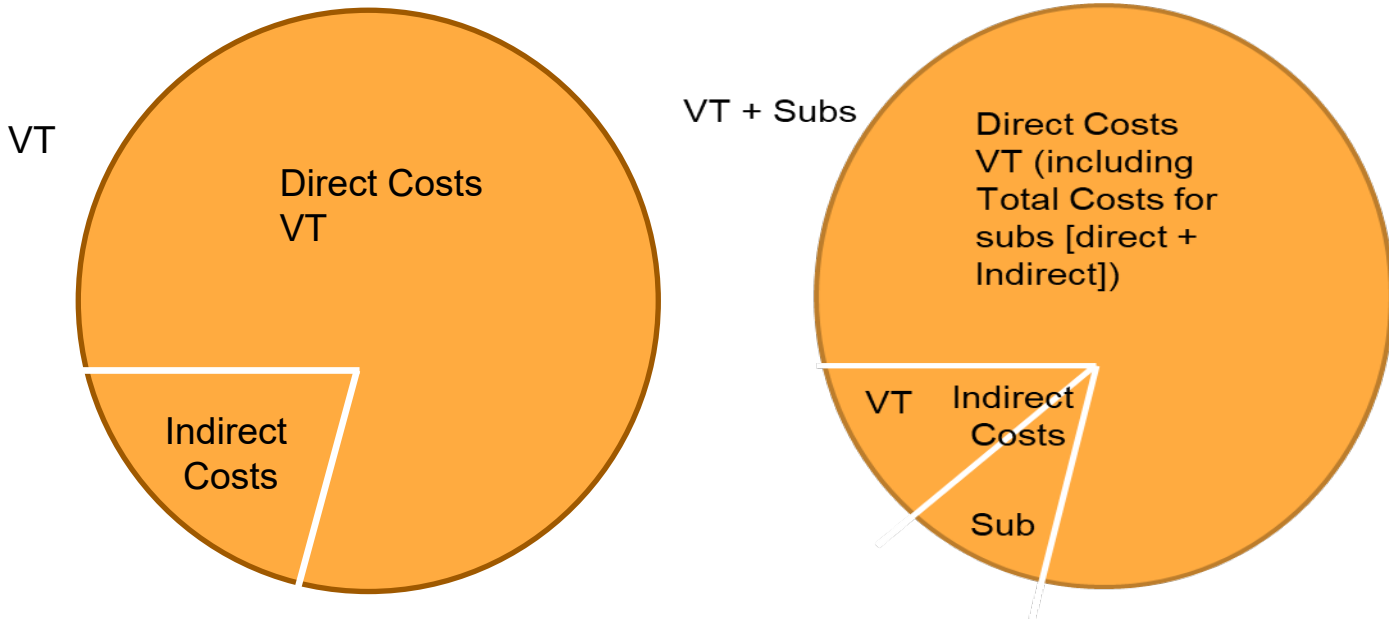
**(Lead indirect costs +
subawardee indirect costs)
/ Total Project Costs <=**
30% TFFA



**Why did the
student wear
glasses in
math class?**
To improve
di-vision.

What does this equation actually mean?

The indirect on the subaward(s) budget is included as part of the overall indirect allowed and is not just considered as part of VT's direct costs as previously noted.



Math Question #4

A PI has requested the following costs on a budget:

- \$74,002 in personnel and fringe costs
- \$10,000 for equipment
- \$12,000 for travel
- \$4,000 for materials/supplies (M/S)
- \$17,000 for graduate student tuition
- One subawardee requesting \$55,000 TDC, and \$15,000 in indirect costs.

If your indirect rate is 50% MTDC, are you meeting the 30% TFFA cap?

Solving the problem, Step 1:

1) Determine total direct costs:

\$74,002 personnel/fringe + \$10,000 equipment + \$12,000 travel + \$4,000 M/S + 17,000 tuition + (\$55,000 subawardee direct costs + \$15,000 subawardee indirect costs) = **\$187,002 total direct costs**

Remember: all subawardee costs are considered direct costs on the lead's budget (even the sub's indirect costs)!

Solving the problem, Step 2:

2) Determine the lead's indirect costs:

\$187,002 TDC – \$10,000 equipment – \$17,000 tuition – \$55,000 sub TDC – \$15,000 sub indirect + \$25,000 portion of sub costs that can have indirect charged to it = **\$115,002 MTDC**

\$115,002 MTDC * 50% indirect rate = \$57,501 IDC

Remember: per MTDC calculation rules, you may only charge indirect on the first \$25,000 of sub costs for each subawardee

Solving the problem, Steps 3 & 4:

3) Determine total project costs:

\$187,002 total direct costs + \$57,501 total indirect costs = **\$244,503 total project costs**

4) Determine the ratio of total indirect costs to total project costs:

(\$57,501 lead indirect + \$15,000 sub indirect) /
\$244,503 total project costs
= \$72,501 total indirect / \$244,503 TPC
= **29.65% TFFA** < 30% TFFA

Math Question #5

A PI has requested the following costs on a budget:

- \$74,002 in personnel and fringe costs
- \$10,000 for equipment
- \$12,000 for travel
- \$4,000 for materials/supplies (M/S)
- \$17,000 for graduate student tuition
- One subawardee requesting \$50,000 TDC, and \$15,000 in indirect costs.

If your indirect rate is 50% MTDC, are you meeting the 30% TFFA cap?

Solving the new problem

Working back through all the steps, we get back to step 4:

$$\begin{aligned} & (\$57,501 \text{ lead indirect} + \$15,000 \text{ sub indirect}) / \\ & \text{\$239,503 total project costs} \\ & = \$72,501 \text{ total indirect} / \text{\$239,503 TPC} \\ & = \mathbf{30.27\% \text{ TFFA}} > 30\% \text{ TFFA} \end{aligned}$$

In this situation, you must update the budget to meet the 30% TFFA cap. How can you fairly update the budget for the lead and the sub(s) to meet NIFA's requirements?

VT's TFFA Calculator Demo

Questions/Discussion

References:

§ 200.413 Direct costs. (2023, Jan. 9). <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-E/subject-group-ECFRd93f2a98b1f6455/section-200.413>

§ 200.414 Indirect (F&A) costs. (2023, Jan. 9). <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-E/subject-group-ECFRd93f2a98b1f6455/section-200.414>

Appendix III to Part 200 - Indirect (F&A) Costs Identification and Assignment, and Rate Determination for Institutions of Higher Education (IHEs). (2023, Jan. 9). <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20III%20to%20Part%20200>

Appendix IV to Part 200 - Indirect (F&A) Costs Identification and Assignment, and Rate Determination for Nonprofit Organizations. (2023, Jan. 9). <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20IV%20to%20Part%20200>

Appendix VII to Part 200 - States and Local Government and Indian Tribe Indirect Cost Proposals. (2023, Jan. 9). <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/appendix-Appendix%20VII%20to%20Part%20200>

King, J., Lawson, L., Rasnick, L. (2022, June 14). *DID YOU HEAR WHAT’S “GROWING ON” at USDA? (the move, the system, the people, & don’t forget about TFFA) [Slide 39]*. Virginia Polytechnic Institute and State University.

NATIONAL AGRICULTURAL RESEARCH, EXTENSION, AND TEACHING POLICY ACT OF 1977. (2023, Jan. 9). <https://www.nifa.usda.gov/sites/default/files/resource/nar77.pdf>

REQUEST FOR APPLICATIONS Integrated Research, Education, and Extension Competitive Grants Program – Organic Transitions. (2023, Feb. 1). <https://www.grants.gov/grantsws/rest/opportunity/att/download/324051>