

# Using the NIH Salary Cap Calculator

University of Delaware Research Office

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# Background

- In order to strengthen compliance with the National Institutes of Health (NIH) Salary Cap, the Research Office has developed a tool to clarify and simplify the salary cap calculation
- The tool is intended for use by both department administrators and the Research Office Post Award team to monitor cap compliance during the life of the project and close out at the end of the project
- Final determination of salary JVs to move direct salary to cost share in the case of cap overage will be made by the Research Office using the calculator in coordination with the department



# NIH Salary Cap Overview

- The NIH Salary Cap is a federally-mandated limitation placed on the 12-month salary **rate** that can be directly charged to NIH-sponsored grants
- It is not a limitation on how much a PI can be paid by the university
  - It is a limitation on the salary for an individual *directly charged* to the NIH in proportion to that individual's institutional base salary (IBS)
- The cap is applicable to subawards and is NOT applicable to consultants
- The cap is calculated on an **annual basis**, even if salary is charged only in one or two months of the project period
- The current salary cap can be viewed on the [NIH's website](#)



# NIH Salary Cap Math

- There are four variables in the salary cap calculation for an individual:
  - Salary Cap at time of project period
    - Published on NIH website
  - Direct Salary Charged to Sponsor
  - Cost Shared Salary
    - Must be **tagged** as cost share in the university's General Ledger (i.e. salary line must have the same project ID as the project it is cost share for)
  - IBS for project period (See Section II.E. of UD's [Effort Certification Policy](#))
    - IBS: An individual's total compensation for activities for which they were hired over a 12-month project period



# NIH Salary Cap Math Continued

- A change in any of the four variables for the cap calculation results in a different cap
- Given that all four variables regularly change during a project period, the salary cap for the period is in constant fluctuation
  - This fluctuation is why it is important to monitor cap compliance regularly throughout the project period (at least monthly)
- While effort % is an important part of the calculation, it is not a variable in the calculation
  - $\text{Effort} = (\text{Direct} + \text{Cost Share}) / \text{IBS}$



# Example

A PI who is a recipient of an NIH award charges **\$15,000 in direct salary** and **\$8,000 in cost share** to the project during the project period (April 1<sup>st</sup> – March 31<sup>st</sup>). From April 1<sup>st</sup> to March 31<sup>st</sup> the PI's **IBS is \$280,500**. The published cap on April 1<sup>st</sup> is **\$187,000**. Is the PI compliant with the cap for this project period?

Salary Cap Limit = Published Cap x ((Total Direct Salary + Total Cost Shared Salary) / IBS for period)

$$187,000 \times ((15,000 + 8,000) / 280,500) = 15,333.33 \leftarrow \text{Salary Cap Limit for PI}$$

$$15,333.33 - 15,000 = 333.33$$

↑  
Cap

↑  
Direct Charged

The PI is \$333.33 under the cap, so no cost transfer is necessary



# The Reconciliation Tool

- The tool has two methods of analysis: Monthly and Annual
- The Annual tab is used at closeout and during annual reconciliations by the Research Office
- The Monthly tab is designed to allow departments to closely monitor the cap during the project lifecycle

**INSTRUCTIONS:** Input the amount of salary directly charged, salary cost shared, and the pay received for each month of each project year. If no salary was charged or cost shared during a month, leave "Direct" and "Cost Shared" blank, but include the pay received for the month. For direct, cost share, and salary amounts, reference the GMQ\_TRANSACTIONS\_SALARY query in UD Financials. Only enter information into the blank white boxes.

Name:													
Employee ID													
Award:													
Project:													
Start Date:													
End Date:													
Date Range:													
Salary Cap:													
Period 1	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Direct													\$ -
Cost Shared													\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Payroll													\$ -
Cap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Over/(Under)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Date Range:													
Salary Cap:													
Period 2	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Direct													\$ -
Cost Shared													\$ -
Total													\$ -

Monthly Analysis

**INSTRUCTIONS:** Input the amount of salary directly charged, salary cost shared, and the pay received for the entire year-long project funding period. For direct, cost share, and salary amounts, reference the GMQ\_TRANSACTIONS\_SALARY query in UD Financials. Only enter information into the blank white boxes. If the project funding period is less than one year, an entire year's pay should still be input into the "Total Pay" field.

Name:		
Employee ID		
Award:		
Project:		
Start Date:		
End Date:		
Period 1 Date Range:		
NIH Salary Cap as of Period Start Date: <small>(Prorate if Salary Cap changes mid-period)</small>		
Total Direct Salary Charged:		
Total Cost Share Salary:		
Total Salary Charged to Project:	\$	-
Period 2 Date Range:		
NIH Salary Cap as of Period Start Date: <small>(Prorate if Salary Cap changes mid-period)</small>		
Total Direct Salary Charged:		
Total Cost Share Salary:		
Total Salary Charged to Project:	\$	-

Annual Analysis



# Using the Monthly Reconciliation Tool

<b>Name:</b>	John Smith													
<b>Employee ID</b>	123456789													
<b>Award:</b>	987654321													
<b>Project:</b>	PHYT123456													
<b>Start Date:</b>	6/1/2017													
<b>End Date:</b>	8/31/2018													
<b>Date Range:</b>	6/1/17 - 5/31/18													
<b>Salary Cap:</b>	\$ 187,000.00	\$ 187,000.00	\$187,000.00	\$ 187,000.00	\$187,000.00	\$187,000.00	\$187,000.00	\$189,600.00	\$189,600.00	\$189,600.00	\$189,600.00	\$189,600.00	\$189,600.00	
<b>Period 1</b>	<b>Month 1</b>	<b>Month 2</b>	<b>Month 3</b>	<b>Month 4</b>	<b>Month 5</b>	<b>Month 6</b>	<b>Month 7</b>	<b>Month 8</b>	<b>Month 9</b>	<b>Month 10</b>	<b>Month 11</b>	<b>Month 12</b>	<b>Total</b>	
<b>Direct</b>	\$ 6,000.00	\$ 5,500.00	\$ 4,000.00			\$ 1,000.00	\$ 800.00	\$ 500.00	\$ 500.00	\$ 500.00			\$ 18,800.00	
<b>Cost Shared</b>	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00			\$ 100.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00			\$ 7,300.00	
<b>Total</b>	\$ 8,000.00	\$ 7,500.00	\$ 6,000.00	\$ -	\$ -	\$ 1,100.00	\$ 1,100.00	\$ 800.00	\$ 800.00	\$ 800.00	\$ -	\$ -	\$ 26,100.00	
<b>Payroll</b>	\$ 25,000.00	\$ 21,000.00	\$ 20,000.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 18,500.00	\$ 232,500.00	
<b>Cap</b>	\$ 4,986.67	\$ 5,565.48	\$ 4,675.00	\$ -	\$ -	\$ 926.58	\$ 926.58	\$ 683.24	\$ 683.24	\$ 683.24	\$ -	\$ -	\$ 21,101.71	
<b>Over/(Under)</b>	\$ 1,013.33	\$ (65.48)	\$ (675.00)	\$ -	\$ -	\$ 73.42	\$ (126.58)	\$ (183.24)	\$ (183.24)	\$ (183.24)	\$ -	\$ -	\$ (2,301.71)	
<b>Date Range:</b>	6/1/18 - 8/31/18													
<b>Salary Cap:</b>	\$ 189,600.00	\$ 189,600.00	\$189,600.00											
<b>Period 2</b>	<b>Month 1</b>	<b>Month 2</b>	<b>Month 3</b>	<b>Month 4</b>	<b>Month 5</b>	<b>Month 6</b>	<b>Month 7</b>	<b>Month 8</b>	<b>Month 9</b>	<b>Month 10</b>	<b>Month 11</b>	<b>Month 12</b>	<b>Total</b>	
<b>Direct</b>	\$ 2,500.00	\$ 800.00	\$ 1,500.00										\$ 4,800.00	
<b>Cost Shared</b>	\$ 500.00	\$ 700.00	\$ 200.00										\$ 1,400.00	
<b>Total</b>	\$ 3,000.00	\$ 1,500.00	\$ 1,700.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,200.00	
<b>Payroll</b>	\$ 25,000.00	\$ 26,000.00	\$ 25,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 247,000.00	
<b>Cap</b>	\$ 1,896.00	\$ 911.54	\$ 1,074.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,759.19	
<b>Over/(Under)</b>	\$ 604.00	\$ (111.54)	\$ 425.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40.81	

- The Monthly Analysis tab gives a month-by-month breakdown of cap compliance
- Information is put into the blank white boxes, and cap compliance is ultimately determined by the aggregated numbers in the “Total” column





# Using the Monthly Reconciliation Tool

Date Range:	6/1/17 - 5/31/18				
Salary Cap:	\$ 187,000.00	\$ 187,000.00	\$187,000.00	\$ 187,000.00	\$187,000.00
Period 1	Month 1	Month 2	Month 3	Month 4	Month 5
Direct	\$ 6,000.00	\$ 5,500.00	\$ 4,000.00		
Cost Shared	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00		
Total	\$ 8,000.00	\$ 7,500.00	\$ 6,000.00	\$ -	\$ -
Payroll	\$ 25,000.00	\$ 21,000.00	\$ 20,000.00	\$ 18,500.00	\$ 18,500.00
Cap	\$ 4,986.67	\$ 5,565.48	\$ 4,675.00	\$ -	\$ -
Over/(Under)	\$ 1,013.33	\$ (65.48)	\$ (675.00)	\$ -	\$ -

- For every month of the project period, enter the published salary cap for that month, direct salary charged, cost shared salary, and total amount of pay received for that month (minus any non-IBS payments such as outside consulting work)
- Even if there was no direct or cost share charged during a month, entering the payroll information for that month is **required**
- Do not alter the gray boxes, as this will change the salary cap formulas



# Using the Monthly Reconciliation Tool

Total
\$ 18,800.00
\$ 7,300.00
\$ 26,100.00
\$ 232,500.00
\$ 21,101.71
\$ (2,301.71)

Total
\$ 33,800.00
\$ 7,300.00
\$ 41,100.00
\$ 232,500.00
\$ 33,261.05
\$ 538.95

- Once information for all 12 months of the project period has been entered, the “Total” column will accurately display how many dollars **over** or **(under)** the cap the employee is
  - If **over**, this is the amount that needs to be transferred (via Journal Voucher) **off** of direct salary and then transferred **on** to a cost share purpose code
  - This “over the cap amount” **cannot** be used to meet **mandatory** cost share requirements, despite it being moved to a cost share purpose



# Using the Monthly Reconciliation Tool

Date Range:	6/1/18 - 8/31/18												
Salary Cap:	\$ 189,600.00	\$ 189,600.00	\$ 189,600.00										
Period 2	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Direct	\$ 2,500.00	\$ 800.00	\$ 1,500.00										\$ 4,800.00
Cost Shared	\$ 500.00	\$ 700.00	\$ 200.00										\$ 1,400.00
Total	\$ 3,000.00	\$ 1,500.00	\$ 1,700.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,200.00
Payroll	\$ 25,000.00	\$ 26,000.00	\$ 25,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 19,000.00	\$ 247,000.00
Cap	\$ 1,896.00	\$ 911.54	\$ 1,074.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,759.19
Over/(Under)	\$ 604.00	\$ (111.54)	\$ 425.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40.81

- Even if the last period of a project is less than 12 months (due to a no-cost extension, etc.), the total payroll information for all 12 months must be filled out
  - This is because the salary cap is a limit on an employee’s **rate of earning** based on an employee’s full-time compensation
- If payroll data is not yet available for the remaining months of a project period, a projection based off of HR Webviews is acceptable
- If the final project period is less than 12 months, the Research Office will perform its reconciliation based on the preceding 12 months of payroll information



# Using the Annual Reconciliation Tool

<b>Period 1 Date Range:</b>		6/1/17 - 5/31/18
<b>NIH Salary Cap as of Period Start Date:</b> <small>(Prorate if Project Period Covers Multiple Caps)</small>	\$	187,975.00
<b>Total Direct Salary Charged:</b>	\$	18,800.00
<b>Total Cost Share Salary:</b>	\$	7,300.00
<b>Total Salary Charged to Project:</b>	\$	26,100.00
<b>Total Pay for One Year Beginning with Period Start Date:</b>	\$	232,500.00
<b>Actual Effort Based on Salary Charged:</b>		11%
<b>Calculated Salary Cap:</b>	\$	21,101.71
<b>Over/(Under) Cap:</b> <small>If over, this is the amount that needs to be transferred from direct to cost share</small>	\$	(2,301.71)

- The Annual Analysis tab uses the exact same math as the “Total” column on the Monthly Analysis tab
- The inputs remain essentially the same: published salary cap (prorated if project period covers multiple published caps), total direct salary, total cost share, and total pay (IBS) for the one-year period
  - Do not enter information in the gray boxes
- The Annual calculation reveals the effort spent on the project for that period



# Using the Annual Reconciliation Tool

<b>Period 2 Date Range:</b>		6/1/18 - 8/31/18
<b>NIH Salary Cap as of Period Start Date:</b> <small>(Prorate if Project Period Covers Multiple Caps)</small>	\$	189,600.00
<b>Total Direct Salary Charged:</b>	\$	4,800.00
<b>Total Cost Share Salary:</b>	\$	1,400.00
<b>Total Salary Charged to Project:</b>	\$	6,200.00
<b>Total Pay for One Year Beginning with Period Start Date:</b>	\$	247,000.00
<b>Actual Effort Based on Salary Charged:</b>		3%
<b>Calculated Salary Cap:</b>	\$	4,759.19
<b>Over/(Under) Cap:</b> <small>If over, this is the amount that needs to be transferred from direct to cost share</small>	\$	40.81

- Just as with the Monthly Analysis tool, a full year's pay must be used, even if the period's start and end date cover a period less than 12 months
- If the over/(under) cap calculation is (green), the individual is compliant with the cap
  - If the calculation is red, the number is the amount that must be moved from direct salary charged to cost share for the project



# FAQs



# Is the use of the calculator mandatory?

- While not mandatory, the use of the calculator is strongly recommended. The Research Office will be using the calculator to report to the NIH and respond to audit inquiries regarding cap compliance.
- If an alternative method is used, the number outputs from that method must match up with the number outputs from the calculator, assuming the inputs are the same.



# Does this change how salary is budgeted?

- No, salary charged to an NIH award will still be budgeted at the current cap level by the Research Office's Contract and Grants Specialists. Please contact your department's C&G regarding any questions concerning budgeting.





# Where does the salary data come from?

- The Research Office uses salary data that posts to the University's General Ledger within UD Financials.



# Does the calculator work for multiple NIH projects?

- While the Monthly Analysis tool is designed to monitor one project at a time, the Annual Analysis tool can be used to evaluate cap compliance for an individual receiving salary from more than one NIH project at a time.
- Analysis of multiple projects must be made using the same 365-day period for all projects.
- In order to determine cap compliance, enter the published salary cap/prorated salary caps, direct salary charged across all projects, cost share across all projects, and the **same IBS** you would enter for only one project. The IBS is the same whether there is one project or X amount of projects being analyzed.



# How do I prorate the published salary cap?

- In the case that a project period crosses multiple published salary caps, prorating the published caps to get one number is necessary for an accurate assessment.
- The formula for prorating two caps is as follows:

$$\begin{aligned} & \text{Published Cap \#1} \times (\text{months cap is effective} / \text{months direct or cost share was charged}) \\ & + \text{Published Cap \#2} \times (\text{months cap is effective} / \text{months direct or cost share was} \\ & \quad \text{charged}) \end{aligned}$$

See following slide for example.



# Prorating the Cap - Example

- A project period runs from April 1<sup>st</sup>, 2016 to March 31<sup>st</sup>, 2017. From 4/1/16 to 1/7/17, the published cap is \$185,100. From 1/8/17 to 3/31/17, the published cap is \$187,000. Salary (either direct or cost shared) is charged to the project in every month of the project period except during September 2016. What is the prorated cap?

$$185,100 \times (8/11) + 187,000 \times (3/11) = \$185,618.18 \leftarrow \text{This is your prorated cap}$$

- Notice how the denominator is 11, due to salary being charged in only 11 of the 12 months



# What effect do salary journal vouchers have on this tool?

- Salary JVs show up in the University's General Ledger on the date they are applied, not on the dates they are adjusting. For example, a JV might have a March 2019 date, but the accounting lines are adjusting a payment that was made in October 2018.
- This means that some JVs are applied in a different project period than the project period they are adjusting.



# What effect do salary journal vouchers have on this tool? - Continued

- In the example, the negative number for month 1 indicates that a JV was applied in Period 2, Month 1. If this number is to adjust salary from Period 1, the -\$5000 needs to be distributed across the months in Period 1 it was applied for in order for an accurate calculation to be made.

<b>Date Range:</b>	6/1/18 - 8/31/18	
<b>Salary Cap:</b>	\$ 189,600.00	\$ 189,600.00
<b>Period 2</b>	<b>Month 1</b>	<b>Month 2</b>
<b>Direct</b>	\$ (5,000.00)	\$ 800.00
<b>Cost Shared</b>		\$ 700.00
<b>Total</b>	\$ (5,000.00)	\$ 1,500.00
<b>Payroll</b>	\$ 25,000.00	\$ 26,000.00
<b>Cap</b>	\$ (3,160.00)	\$ 911.54
<b>Over/(Under)</b>	\$ (1,840.00)	\$ (111.54)



# Other Questions

- Please reach out to your department's Sponsored Research Accountant in the Research Office with any questions regarding the NIH Salary Cap Calculator.

