

How to Calculate Fringe Benefits

July 2009

For Faculty –

Faculty can include two months salary, at most, on an NSF grant. These days, we categorize this request as “supplemental salary” (as opposed to the “summer salary” of yore) and note the months in the “calendar” column of the budget form.

The shift in naming is aimed at helping us comply with federal policy – the only downside is that we now have to pro-rate both annual increases in faculty salaries and faculty fringe benefit calculations when grant periods span fiscal years.

Formulas specific to the upcoming August and January 2009 deadlines are below:

NSF Deadline	Anticipated Start Date	Formulas for calculating fringe for exempt personnel
August 2009	March 1, 2010	<p><u>YEAR ONE</u> $(\text{FTE salary FY10}) \times (2/9) \times (4/12) \times (.248) = \text{Fringe for FY10}$ $(1.04 \text{ FTE salary FY10}) \times (2/9) \times (8/12) \times (.262) = \text{Fringe for FY11}$ Fringe for FY10 + Fringe for FY11 = Total Fringe Benefits Costs for Year One of the Grant</p> <p><u>YEAR TWO</u> $(\text{FTE salary FY11}) \times (2/9) \times (4/12) \times (.262) = \text{Fringe for FY11}$ $(1.04 \text{ FTE salary FY11}) \times (2/9) \times (8/12) \times (.266) = \text{Fringe for FY12}$ Fringe for FY11 + Fringe for FY12 = Total Fringe Benefits Costs for Year Two of the Grant</p> <p><u>YEAR THREE</u> $(\text{FTE salary for FY12}) \times (2/9) \times (.266) = \text{Total Fringe Benefits}$ Costs for Year Three of the Grant</p>
January 2010	July 1, 2010	<p><u>YEAR ONE</u> $(\text{FTE salary FY11}) \times (2/9) \times (.262) = \text{Total Fringe Benefits for Year One of the Grant}$</p> <p><u>YEAR TWO</u> $(\text{FTE salary FY12}) \times (2/9) \times (.266) = \text{Total Fringe Benefits for Year Two of the Grant}$</p>

		<p><u>YEAR THREE</u> (FTE salary FY12)*(2/9)*(.266) = Total Fringe Benefits for Year Three of the Grant</p>
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For Graduate Students and Undergraduates –

This is easy!

Graduate students do not qualify for fringe benefits either in the academic year or during the summer months.

Undergraduates are eligible for fringe only in the summer. In the rare cases in which undergraduates work on a grant during the summer, their salary can be budgeted during July and August. The rate for “Temporary Employees” should be used to calculate their fringe benefit costs.

No pro-rating is necessary.

For Post Docs –

This takes a bit more thinking.

Post docs have 12 month appointments, and are paid fringe benefits in every month of the calendar years. This means that, depending on the standing FAS fringe rate agreement, fringe benefit costs must be pro-rated across two fiscal years whenever the start date of a grant does not coincide with the start of Harvard FAS’ fiscal year. And, of course, it’s a generally accepted practice to increase annual salaries by 3-4% at the start of each new fiscal year, which means that baseline salaries must be “blended” (i.e. pro-rated) when a grant period spans two fiscal years.

Again, formulas specific to the next two NSF deadlines follow:

NSF Deadline	Anticipated Start Date	Formulas for calculating fringe for exempt personnel
August 2009	March 1, 2010	<p><u>YEAR ONE</u> (FTE salary FY10)*(Months on Grant/12)*(4/12)*(.252) = Fringe for FY10</p> <p>(1.04 FTE salary FY10)*(Months on Grant/12)*(8/12)*(.257) = Fringe for FY11</p> <p>Fringe for FY10 + Fringe for FY11 = Total Fringe Benefits Costs for Year One of the Grant</p>

		<p><u>YEAR TWO</u> (FTE salary FY11)*(Months on Grant/12)*(4/12)*(.257) = Fringe for FY11</p> <p>(1.04 FTE salary FY11)*(Months on Grant/12)*(8/12)*(.260) = Fringe for FY12</p> <p>Fringe for FY11 + Fringe for FY12 = Total Fringe Benefits Costs for Year Two of the Grant</p> <p><u>YEAR THREE</u> (FTE salary for FY12)*(Months on Grant/12)*(4/12)*(.266) = Fringe for FY12</p> <p>(1.04 FTE salary for FY12)*(Months on Grant/12)*(8/12)*(.266) = Fringe for FY13</p> <p>Fringe for FY12 + Fringe for FY13 = Total Fringe Benefit Costs for Year Three of the Grant</p>
January 2010	July 1, 2010	<p><u>YEAR ONE</u> (FTE salary FY11)*(Months on Grant/12)*(.257)= Total Fringe Benefits for Year One of the Grant</p> <p><u>YEAR TWO</u> (FTE salary FY12)*(Months on Grant/12)*(.260) = Total Fringe Benefits for Year Two of the Grant</p> <p><u>YEAR THREE</u> (FTE salary FY12)*(Months on Grant/12)*(.260) = Total Fringe Benefits for Year Three of the Grant</p>

Other Professionals (Programmer; Project Coordinator; etc) –

Here things start to get more complicated.

Under the rules for “Absence Management,” annual salaries must be modified to account for the higher fringe benefit rates used for administrative personnel. As with other personnel categories, fringe benefit rates must also be pro-rated across the different fiscal years in the grant period. And, of course, it’s a generally accepted practice to increase annual salaries by 3-4% at the start of each new fiscal year – so, again, baseline salaries must be “blended” when a grant period spans two fiscal years.

The following table outlines the formulas for calculating fringe benefit costs for professionals on grants (i.e. exempt personnel) for the next two NSF deadlines based on

the rules for “Absence Management.” Explanations and a general formula are also provided.

NSF Deadline	Anticipated Start Date	Formulas for calculating fringe for exempt personnel
August 2009	March 1, 2010	<p><u>YEAR ONE</u> $(\text{FTE salary FY10}) \times (48/52) \times (\text{Months on Grant}/12) \times (4/12) \times (.40)$ = Fringe for FY10</p> <p>$(1.04 \text{ FTE salary FY10}) \times (48/52) \times (\text{Months on Grant}/12) \times (8/12) \times (.417)$ = Fringe for FY11</p> <p>Fringe for FY10 + Fringe for FY11 = Total Fringe for Year One of the Grant</p> <p><u>YEAR TWO</u> $(\text{FTE salary FY11}) \times (48/52) \times (\text{Months on Grant}/12) \times (4/12) \times (.417)$ = Fringe for FY11</p> <p>$(1.04 \text{ FTE salary FY11}) \times (48/52) \times (\text{Months on Grant}/12) \times (8/12) \times (.422)$ = Fringe for FY12</p> <p>Fringe for FY11 + Fringe for FY12 = Total Fringe for Year Two of the Grant</p> <p><u>YEAR THREE</u> $(\text{FTE salary FY12}) \times (48/52) \times (\text{Months on Grant}/12) \times (4/12) \times (.422)$ = Fringe for FY12</p> <p>$(1.04 \text{ FTE FY12}) \times (48/52) \times (\text{Months on Grant}/12) \times (8/12) \times (.422)$ = Fringe for FY13</p> <p>Fringe for FY12 + Fringe for FY13 = Total Fringe for Year Three of the Grant</p>
January 2010	July 1, 2010	<p><u>YEAR ONE</u> $(\text{FTE salary FY11}) \times (48/52) \times (\text{Months on Grant}/12) \times (.417)$ = Total Fringe for Year One of the Grant</p> <p><u>YEAR TWO</u> $(\text{FTE salary FY12}) \times (48/52) \times (\text{Months on Grant}/12) \times (.422)$ = Total Fringe for Year Two of the Grant</p> <p><u>YEAR THREE</u> $(\text{FTE salary for FY12}) \times (48/52) \times (\text{Months on Grant}/12) \times (.422)$ = Total Fringe for Year Three of the Grant</p>

EXPLANATION:

- Time commitments on grants are framed as months-per-calendar year because this is the format mandated by NSF for professionals included on grant proposal budgets.
- Salary does NOT need to be blended for grants submitted for the January deadline because the anticipated start dates for these grants coincide with the start of Harvard FAS' fiscal year.

General formula for calculating fringe for exempt personnel

$(\text{FTE salary FY-One}) * (48/52) * (\text{Months of Grant Period in FY-One}/12) * (\text{Months on Grant}/12) =$
Salary for FY-One

$(1.04 \text{ FTE salary FY-One}) * (48/52) * (\text{Months of Grant Period in FY-Two}/12) * (\text{Months on Grant}/12) =$
Salary for FY-Two

$(\text{Salary for FY-One}) * (\text{Fringe benefit rate for FY-One}) =$ Fringe costs for FY-One

$(\text{Salary for FY-Two}) * (\text{Fringe benefit rate for FY-Two}) =$ Fringe costs for FY-Two

Fringe costs for FY-One + Fringe costs for FY-Two = Fringe costs for Year One of the grant

Secretarial-Clerical (If Charged Directly)

Fringe costs for this category of personnel (which in Harvard FAS-speak counts as non-exempt) also demand a lot of math. The good news is that the calculations basically mirror those outlined above, with just a few modifications.

The major changes are as follows:

- The fraction used to modify annual salaries is 49/52. (Again, this is to account for the "Absence Management" policy).
- Time commitments on grants are framed as % FTE. (Again, this is per NSF convention).
- Fringe rates for non-exempt employees are used. (Obviously)

All the other rules and explanations apply.

Here are the formulas for calculating fringe costs for non-exempt personnel on grants submitted for the next two NSF deadlines, as well as a general formula:

NSF Deadline	Anticipated Start Date	Formulas for calculating fringe for exempt personnel
August 2009	March 1, 2010	<p><u>YEAR ONE</u> (FTE salary FY10)*(49/52)*(%FTE)*(4/12)*(.527) = Fringe for FY10</p> <p>(1.04 FTE salary FY10)*(49/52)*(%FTE)*(8/12)*(.547) = Fringe for FY11</p> <p>Fringe for FY10 + Fringe for FY11 = Total Fringe for Year One of the Grant</p> <p><u>YEAR TWO</u> (FTE salary FY11)*(49/52)*(%FTE)*(4/12)*(.547) = Fringe for FY11</p> <p>(1.04 FTE salary FY11)*(49/52)*(%FTE)*(8/12)*(.558) = Fringe for FY12</p> <p>Fringe for FY11 + Fringe for FY12 = Total Fringe for Year Two of the Grant</p> <p><u>YEAR THREE</u> (FTE salary FY12)*(49/52)*(%FTE)*(4/12)*(.558)= Fringe for FY12</p> <p>(1.04 FTE FY12)*(49/52)*(%FTE)*(8/12)*(.558) = Fringe for FY13</p> <p>Fringe for FY12 + Fringe for FY13 = Total Fringe for Year Three of the Grant</p>
January 2010	July 1, 2010	<p><u>YEAR ONE</u> (FTE salary FY11)*(49/52)*(%FTE)*(.547) = Total Fringe for Year One of the Grant</p> <p><u>YEAR TWO</u> (FTE salary FY12)*(49/52)*(%FTE)*(.558) = Total Fringe for Year Two of the Grant</p> <p><u>YEAR THREE</u> (FTE salary for FY12)*(49/52)*(%FTE)*(.558) = Total Fringe for Year Three of the Grant</p>

General formula for calculating fringe for non-exempt personnel

$(\text{FTE salary FY-One}) * (49/52) * (\text{Months of Grant Period in FY-One}/12) * (\% \text{FTE}) =$
Salary for FY-One

$(1.04 \text{ FTE salary FY-One}) * (49/52) * (\text{Months of Grant Period in FY-Two}/12) * (\% \text{FTE}) =$
Salary for FY-Two

$(\text{Salary for FY-One}) * (\text{Fringe benefit rate for FY-One}) = \text{Fringe costs for FY-One}$

$(\text{Salary for FY-Two}) * (\text{Fringe benefit rate for FY-Two}) = \text{Fringe costs for FY-Two}$

$\text{Fringe costs for FY-One} + \text{Fringe costs for FY-Two} = \text{Fringe costs for Year One of the grant}$

Budget Justifications

Fringe benefit rates in the 40-50% range can, at first glance, appear shockingly high.

To assuage the possible worries (or, rather, indignations) of grant reviewers and budget watch-people, it's generally advisable to include a few words of explanation in the budget justification whenever fringe is calculated via Absence Management practices. The text below is OSP and FAS approved and can be modified to reflect specific personnel included on the grant. (Admittedly, this is high grant-speak, but it can be handy to reference if/when a sponsor calls with questions).

“The staff salary expenses in this budget were calculated in accordance with the Harvard Treatment of Paid Absences portion of Section II of our rate agreements negotiated with the Department of Health and Human Services on February 20, 2008. Harvard began using a vacation accrual beginning July 1, 2007. Paid absences for vacation will no longer be claimed as direct charges on federal awards and regular salary will carry a vacation fringe to accrue earned vacation.”