

# FY 2009 SALARY POLICY REPORT

## Office of the Vice Provost & Associate Vice Chancellor of Academic Affairs for Budget and Planning

Every year the Provost's Office of Budget and Planning produces a salary policy report. The purpose of this report is to review salary policy and examine progress toward the end of attaining the various salary goals of the Provost.

### I. General Merit Allocations

**A) Objective:** When funding is available, faculty salaries will be supplemented annually according to the meritoriousness of individual faculty members. The goal is not only to reward individual faculty merit but to provide sufficient funding annually so that the average salary for the entire body of faculty on campus matches that of our AAU-Public peers.

**B) Policy:** Academic Affairs will pass on to each primary unit an annually specified standard factor increase for individual merit-based salary increases. This allocation will be based upon the continuing general-fund budget for salaries of currently active faculty including instructor-ranked faculty and professional exempt employees in each unit. Standard factor increases will not be passed on for vacant, temporary or pooled budget. At the unit level, individual salary increments will be determined according to policies specified elsewhere, however, the following principles are worth repeating:

- 1) The standards for merit evaluation in the areas of teaching, research and service should be clearly stated for review by those undergoing evaluation.
- 2) The standards should be reasonably stable over time in order to allow faculty the opportunity to make professional decisions on the allocation of their effort in a rational and efficient way.
- 3) Peer faculty input is a necessary component of the annual evaluation process.
- 4) All general merit increases must be based on individual merit.
- 5) Evaluations should account for short run, year-to-year variations and attempt to smooth salary increases over time.

**C) Process:** The annual budget process should attempt to allocate from the campus general fund budget a standard factor increase of at least inflation plus one percent for annual merit increases for faculty. This pool may be reduced for investment in unit merit, to address individual retention or to correct inequities (see below). An additional adjustment from the standard factor increase may be made by deans in their own school or college in order to address college level salary issues. Appropriate faculty approval is necessary for such college level adjustments to the faculty salary pool. Individual units will be notified during the Spring semester as to their own allocation based upon their roster of active faculty and professional exempt employees.

In addition during AY 2006/2007 the campus invested in a supplemental salary process referred to as the "Midyear Adjustment". The objectives of the Midyear Adjustment included correcting substantial gaps that existed between average salaries in many units and their peers among the group of AAU Public Research Universities and dealing with specific faculty retention, equity and career merit issues. Continuing funding for the Midyear Adjustment was provided on a proportional basis with two-thirds of the funds allocated by the Chancellor and one-third by individual schools and colleges. Specific allocations to faculty were decided upon by processes developed in each school, college and unit participating. A much smaller midyear adjustment was undertaken in 2008/2009.

**D) Data:** There is a great deal of salary data available to campus decision makers in order to make equitable and fair increments on a year-to-year basis. Scatterplots that plot each faculty member's salary against years since highest degree are provided in the fall to each school or college for all units in those schools and colleges. In addition, data on average salaries by unit and rank in comparison to AAU-Public peers are available on a one-year lag from Planning, Budget and Analysis. These data for the campus are summarized below, but for a full report, see:

<http://www.colorado.edu/pba/facstaff/facsal>

## II. Salary Increments for Fiscal Year 2009

The average salary increments for the entire Boulder Campus Academic Affairs Division from fiscal year 2000 to fiscal year 2009 are listed below along with the projected Consumer Price Index for the Denver/Boulder region. This inflation rate is forward looking for policy purposes, but is actually based on data lagged from two years before. In other words, the Fiscal Year 2009 inflation rate of 3.6 percent that the State of Colorado uses for the FY budget is actually based in part on the rate that consumer prices increased in the Denver-Boulder region in 2007. For information on the inflation rate used, please refer to:

<http://www.colorado.edu/pba/budget/inflation/fy09inflation.html>

The increases represented below are inclusive of all salary pools (i.e., general merit, self funding unit merit, gender equity and special merit), and they include tenured and tenure-track faculty, faculty with rank of instructor and all professional exempt employees in Academic Affairs.

<b>Fiscal Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Percentage Increase	4.66	5.99	6.97	2.90	3.25	3.32	3.50	5.10*	5.30
T/TT Median Increase	3.90	5.33	5.80	2.02	2.30	2.39	3.45	7.74+	4.92
Denver/Boulder CPI	2.90	4.00	4.70	1.90	1.10	0.10	2.10	3.60	2.20
*Excludes Mid-Year									
+Includes Mid-Year									

In addition, a comparison to AAU peer institutions is provided. Note that the salary increase amounts below are calculated in a much different manner than those above. The percentage increases above show the increase in a salary pool, those below are weighted averages by rank, so as rank weights change the change percentages are affected. This table is also lagged by one year as data for FY09 is not available to make peer comparisons until early in the fall of 2009. Note that the 2007 column includes the Midyear Adjustments that occurred during that fiscal year.

<b>Fiscal Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Comparison to AAU	-7.70	-5.80	-2.40	-2.10	-3.00	-4.30	-1.55	-1.41
CU % Change	3.30	5.10	6.70	2.20	3.10	2.49	6.98	3.74
AAU % Change	4.40	3.00	2.90	1.80	4.10	3.95	3.95	3.64

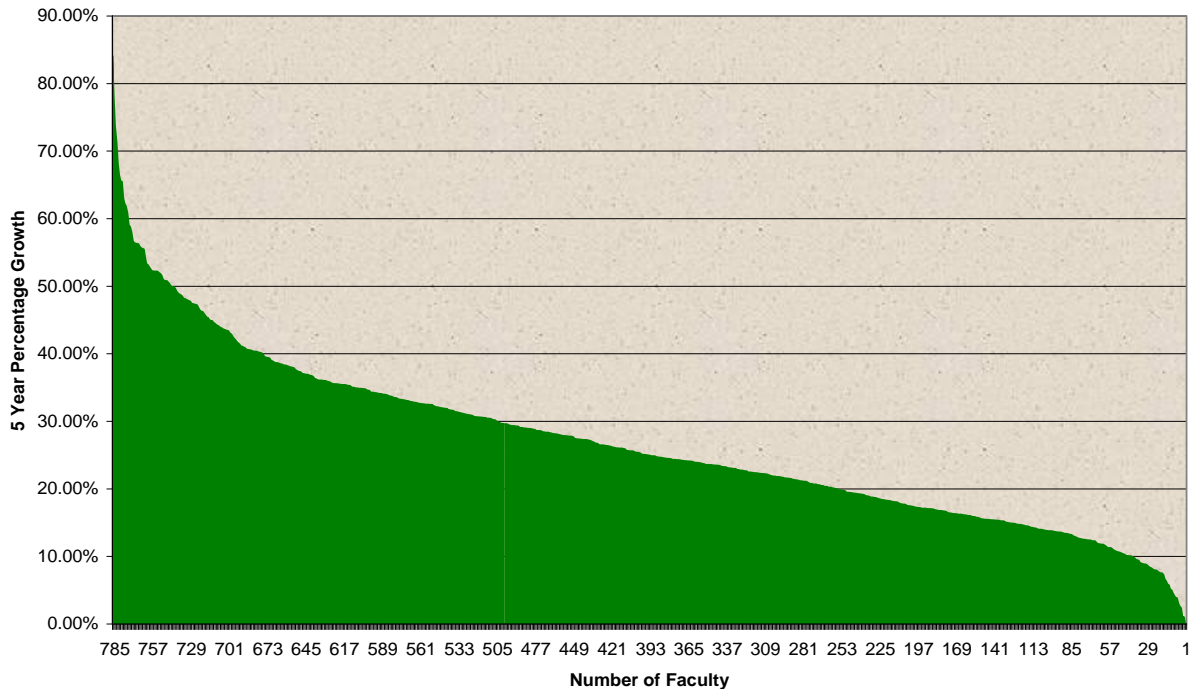
## III. Long-Run Salary Growth

Productive faculty members should see real growth in their academic salaries through the merit allocation process over time. The application of merit principles in the annual increment of salaries, as well a policy of having an annual merit pool of at least one percent in excess of inflation should guarantee such real salary growth for productive faculty.

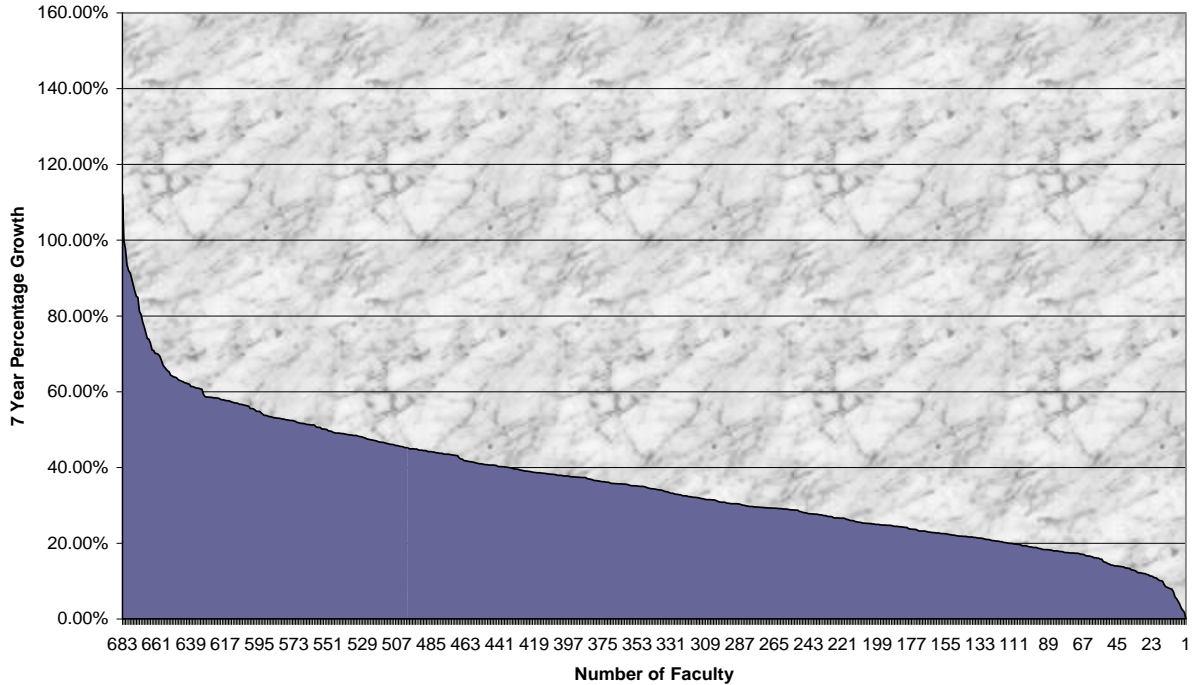
In order to examine the cumulative impact of annual increases over time, a panel data set of the salaries of faculty who have maintained employment at CU for an extended period of time is maintained. These data are then examined for cumulative increases in salary relative to inflation. Current year data show that real long-run salary growth had been maintained for continuing faculty. Virtually all continuing faculty have seen real increases over this time frame and the average real increase is on the order of 2 to 3 percent per year. In addition, maintaining the kind of growth shown in nominal salaries would lead to an expected doubling of nominal salaries within about 18 years.

Years of Service	5 ('05-'09)	7 ('03-'09)
Mean Cumulative Salary Growth	26.83%	35.94%
Cumulative Inflation	8.2%	11.5%
Number of Faculty	787	683
Percent with Real Growth	96.2%	97.0%
Mean Real Increase	18.63%	24.44%

**5 Year Salary Growth  
AY05-AY09**



**7 Year Salary Growth  
AY03-AY09**

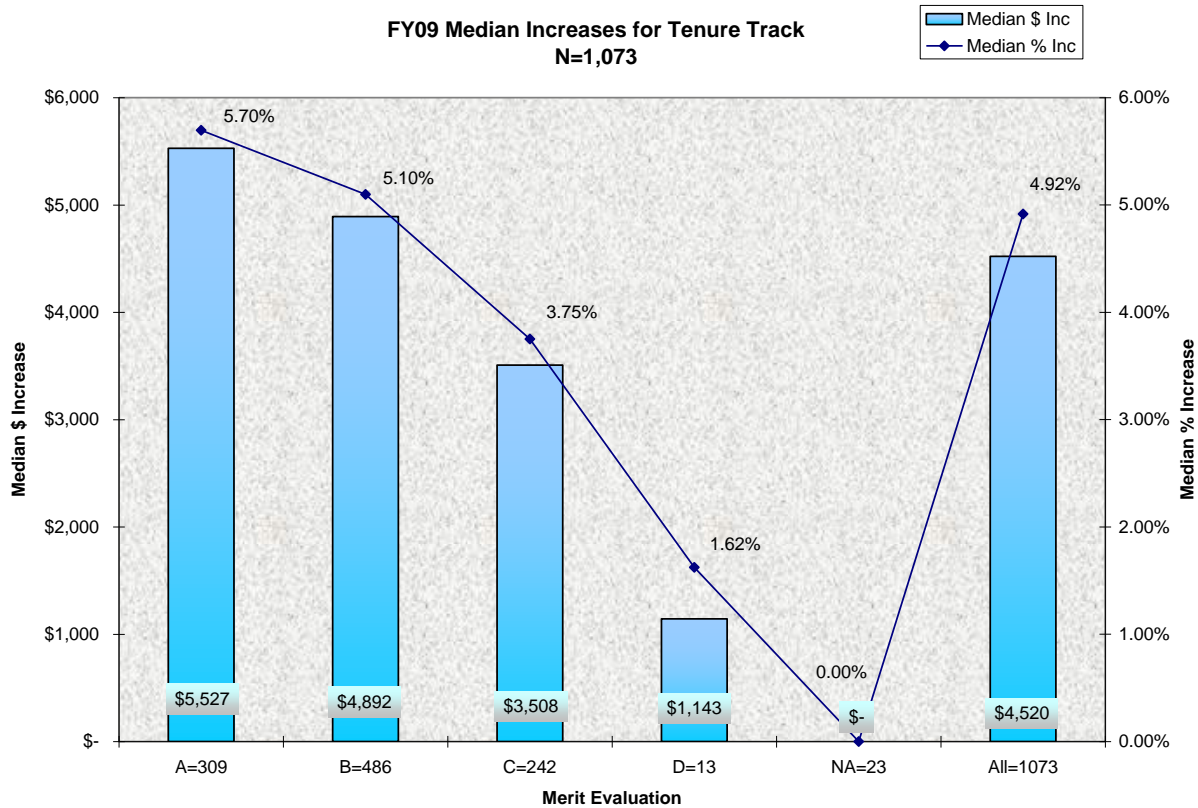


**IV. Merit Increases versus Merit Evaluation**

**A) Policy:** Annual increments in faculty salary should be based on the individual merit as determined through a peer evaluation process.

**B) Data:** Each year this report undertakes to examine the relationship between individual faculty merit evaluations and salary increases. The evaluation data reported is the broad measure issued on the “FEMBU” scale (Far exceed expectations, Exceeds expectations, Meets expectations, Below expectations and Unsatisfactory).

It should be noted that the relationship between increases and merit will not be perfect but should be strong. Among the reasons for the expected lack of perfect correlation are that both career and annual merit can be taken into account in awarding salary increases; that different units award increases that are calculated variously using either absolute (i.e., dollar amount) or relative (i.e., percentage amount) standards; and that the FEMBU scale is not standardized across units. For instance during the 2008 evaluation year, while the campus mean was slightly above the “Exceeds expectations” level (3.04) the range of average evaluations over units was from a high of 3.51 in one school to a low of 2.77. Comparisons between units this varied are not particularly insightful. Nevertheless, the data below do show a strong relationship between merit evaluation and award.



## V. Salary Compression

**A) Objective and Policy:** There is no stated campus objective or policy with respect to salary compression other than that annual salary increments are to be merit-based.

**B) Data:** Data on salaries by faculty rank and department was examined for both AAU peer institutions and CU. In particular, ratios between the average salary of full professors and of assistant professors were calculated in order to form an index of relative compression. With the ratio of average full professor salaries to average assistant professor salaries among AAU peers available for baseline comparisons, information would be available as to whether various departments were experiencing salary compression relative to these peers. Salary data for AAU peers is from FY 2007. Data at CU data is from both FY 2006 and FY 2009 including three annual adjustments and a mid-year adjustment over the FY 2006 data.

Over all the data show that for AAU peer institutions full professors are paid an average premium of 73 percent relative to assistant professors. On a department by department basis, these premiums range from 119 percent in Film Studies to 35 percent for Business colleges. At CU the full professor premium is somewhat smaller at 65 percent relative to assistant professors.

Tenure Dept	AAU Full/AAU Asst FY08	CU Full/CU Asst FY06	CU Full/CU Asst FY09
AS - Anthropology	1.77	1.67	1.51
AS - Applied Math	1.73	1.78	1.70
AS - Art & Art History	1.66	1.43	1.48
AS - Astro Plnt Sci	1.55	1.62	1.73
As - Atms Ocean Sci	1.76	1.44	1.59
AS - Biology MCD	1.73	1.64	1.51
AS - Chem&Biochem	1.82	1.65	1.57
AS - Classics	1.77	1.91	1.84
AS - Cmp Lit & Humn*	1.92	1.64	1.76
AS - Communication	1.76	1.89	1.83
AS - East Asian L/C	1.80	1.85	1.87
AS - Ecol & Evo Bio	1.65	1.59	1.61
AS - Economics	1.67	1.46	1.60
AS - English	1.80	1.50	1.57
AS - Env. Studies	1.65	1.38	1.47
AS - Ethnic Studies	1.82	1.42	1.34
AS - Film Studies	2.19	1.55	1.90
AS - French/Italian	1.72	1.63	1.66
AS - Geography	1.74	1.72	1.73
AS - Geological Sci	1.65	1.60	1.60
AS - German/Slavic	1.68	1.98	2.00
AS - History	1.86	1.69	1.78
AS - Integrat Phys	1.89	1.58	1.57
AS - Linguistics	1.70	1.30	1.43
AS - Mathematics	1.66	1.43	1.35
AS - Philosophy	1.87	1.69	1.83
AS - Physics	1.60	1.55	1.62
AS - Political Sci	1.81	1.84	1.91
AS - Psychology	1.83	1.86	1.72
AS - Religious Std	1.97	1.70	1.73
AS - Sociology	1.81	1.77	1.79
AS - Spanish/Port	1.85	1.81	1.52
AS - Spch/Lang/Hear	1.75	1.64	1.82
AS - Theatre/Dance	1.69	1.74	1.74
AS - Womens Std.	1.80	1.71	-
<b>AS - Total</b>	<b>1.76</b>	<b>1.67</b>	<b>1.69</b>
Business	1.35	1.13	1.12
Education	1.76	1.52	1.49
EN - Aerospace	1.61	1.48	1.42
EN - Chemical	1.65	1.49	1.65
EN - Civil	1.61	1.40	1.45
EN - Computer Sci	1.48	1.29	1.26
EN - Electrical	1.57	1.41	1.39
EN - Mechanical	1.63	1.76	1.64
EN - No Department	1.65	1.37	-
<b>EN - Total</b>	<b>1.58</b>	<b>1.44</b>	<b>1.44</b>
Journalism	1.75	1.79	1.81
Law*	1.64	1.66	1.74
Libraries	-	2.03	2.00
Music	1.70	1.57	1.45
<b>All</b>	<b>1.73</b>	<b>1.62</b>	<b>1.65</b>

\* The Law and Comp Lit/Humanities CU Full/CU Asst calculation uses the AAU Asst Prof average as the denominator

## VI. Other Supplements to Faculty Salaries

In addition to the general merit salary adjustment process, other funds are channeled into faculty salaries. The various processes for salary adjustment include the following different allocation mechanisms:

- **Self Funding** In some years Schools and Colleges have been given the opportunity to self fund salary increases in order to supplement the funds available through campus sources. Monies dedicated to self-funding of salaries must be continuing in duration and can be based on external endowments and gifts or savings from other general fund accounts. Endowments currently supporting faculty salaries and benefits are responsible each year to provide a percentage increase at least equal to the generally funded merit increase. Additional revenues can then be allocated for self-funded increases to other salaries. In addition, certain general fund accounts, for instance salary savings, can be used to self-fund salaries in schools and colleges. The Provost must approve all self-funded sources. Self-funded salary adjustments are generally subject to the policies and processes listed above.
- **Unit Merit** The general merit allocation process described above has a tendency to penalizing the average faculty in above average departments. These faculty who are probably above average relative to their peers at other institutions tend to find little in the way of salary funding left after their superior colleagues at CU have been appropriately rewarded. (The argument works in reverse for below average departments at CU.) In order to correct this defect, special allocations have been made on occasion to the departments of highest merit when their average salaries are unjustifiably low relative to AAU peers.
- **Special Merit** Allocations are sometimes made for special merit in order to solve particular retention problems or to increase the spread and overall reward for meritorious performance in general.
- **Mid-year Adjustments** In FY 2007 special allocations were made out of general funds in combination with school and college self funding in order to supplement faculty salaries toward the end of closing the gap between salaries at CU and AAU peer institutions. As a rule, the mid-year adjustments of FY 2007 were limited to 50 percent of the faculty in any unit and allocations to specific units followed a unit-merit method of differential allocation based on AAU salary gaps relative to overall unit merit. Individual salary adjustments in each unit were based on individual career merit. There was a small midyear adjustment in FY09.
- **Gender Equity** A total of \$277,000 was allocated toward gender equity prior to FY04. This process is described in the section below

**Values in thousands**

<b>Other Supplements</b>	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
GF Self Funding	\$307	-	\$182	\$133	\$420	\$36	-
Unit Merit	\$300	-	-	-	-	-	-
Special Merit	\$158	\$896	\$769	\$629	\$108	\$266	\$598
Mid-Year Campus Funded	-	-	-	-	\$1,973	-	\$200
Mid-Year Self Funded	-	-	-	-	\$1,266	-	\$100

**VII. Gender Equity**

**A) Objective:** Statistically significant differences in the average salaries of otherwise similar gender groupings should be eliminated.

**B) Policy:** Each year the office of Academic Affairs will undertake a study of faculty salaries to test for the presence of statistically significant differences while holding constant other possible causes of

difference such as rank, discipline and years of service. If a statistically significant difference is found, a pool of funds will be set aside to be allocated in an attempt to correct the problem. Allocations from this pool will be based upon the relative meritoriousness of individuals.

**C) Process:** The gender equity study will test for the presence of inequities in the faculty salary structure on campus by employing a multiple regression analysis of salaries each year. Data are taken from the professional roster maintained by the Academic Affairs Budget and Planning Office. The analysis will be reported each year to the Chancellor, Provost, Council of Deans, Boulder Faculty Assembly and other interested parties in order to determine an appropriate remedy, if necessary. In addition, units are to undertake an examination of their own salary structure based upon the salary scatter plot provided by Academic Affairs each year in order to identify specific individuals who may be rewarded less than appropriately given their career merit.

**D) Data:** Faculty salary data are examined each year using multiple regression analysis to test for the presence of statistically significant salary differences for women or members of minority groups. Information included in the regression analysis to help explain the pattern of salaries includes academic market, professional accomplishment (i.e., rank and tenure status) and experience. These data typically explain from 71 to 73 percent of the variation in faculty salaries. In 2009 an average of individual merit scores was added to the analysis and the percent of variation explained rose to about 79 percent. A variety of regressions are run to test for robustness of the results.

In the Fall of 1999 and again in the Fall of 2000 a statistically significant gender gap was present in the data. Subsequently, in the following Fiscal Years, investments were made in a gender equity allocation--\$80,000 in FY 2001, \$166,200 in FY 2002. Analysis performed in fall of 2001 failed to show a statistically significant gap at the 90 percent confidence level ( $p = 0.1135$ ). Nevertheless an additional \$30,640 was invested for gender equity in FY03 salaries. Overall, a total of \$276,840 was allocated for gender equity over those three years.

Examinations undertaken between FY03 and FY08 failed to show a significant salary gap between genders. However the analysis for FY09 shows the presence of a significant negative salary gender gap of between 1 and 2 percent for women. This is an issue that needs to be addressed when sufficient funds for salary increases are available. Minority and female minority variables are included in the regression and but have insignificant coefficients. Significant predictors of salary included in the model are academic market, rank, average individual merit and whether the faculty member was appointed to their position 10 or more years after receiving their highest degree.