Committee on Priorities and Resources

2016 Retirement Contribution Formula Analysis and Proposal

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<u>The Amherst College Defined Contribution Retirement Plan Formula – A Reform Proposal</u>

At the request of a College staff member and the Employee Council the Committee on Priorities and Resources (CPR) has reviewed the college contribution formula for college faculty and staff 403(b) retirement accounts.

The current plan entails a 6% contribution by the college for employee income up to $50,100, and a 9% contribution for the portion of salary above this value. If the employee contributes additional salary up to 3% to their retirement account, the college will match this contribution. For simplicity we will assume all elected matched contributions are 3% when chosen. This formula (which we will term the "6/9" formula) is similar to some peer liberal arts colleges, though there are many variations in the specific approaches, rules, and values (see **Appendix: Table 2**).

After several analyses and discussion, the CPR determined that there are several reasons to change the current formula. These are detailed as follows.

1. <u>Amherst has one of the least generous retirement plans for lower/middle income earners when compared with peer institutions</u>. We compared Amherst with 14 liberal arts college peers. Formulas varied from a range of the age-based criteria to flat rates, to two-tier formulas (specific formulas in **Appendix: Table 2**). **Figure 1** shows that for employees earning <u><</u>$50,000, Amherst ranks at the bottom with Williams and Smith. For individuals earning $75,000 Amherst then moves into a position in the middle of the group (6th or 7th out of 12). For individuals earning $200,000 or more the rank rises to 4th and remains 4th or 5th up through higher income levels.

2. <u>Employees need to be saving at a rate closer to 15%</u>. Many financial advisors suggest that employees save up to 15% for their retirement (e.g., https://investor.vanguard.com/retirement/savings/how-much-to-save). With our current 6/9 formula individuals earning $50,000 or less are limited to a 12% savings rate and individuals earning $150,000 reach a 14% savings rate (assuming they do not voluntarily elect to add additional funds; see **Appendix: Table 3**).

3. <u>The 6/9 formula is not indexed to Social Security.</u> The purpose of a two-tier formula is to generate replacement income to offset supplements for lower-income employees from social security. Most colleges index their formulas around the social security income limit, currently $118,500 (see **Appendix: Table 4A**). We estimated replacement income from the current form of social security combined with estimates of 403(b) income using a 34-year time savings horizon, assuming 2% inflation, a 5% annual return and a 7% pension factor. The current 6/9 formula produces a dip for low/mid-range incomes, thus the disparities created by the current formula do not seem to achieve desired targets. However, we must note these are estimates based on a limited number of factors.

4. <u>Twice as many low income employees are not making the match</u>. In order to get a 3% match from the college individuals must elect to deposit 3% into their account. If individuals do not make the match it has a devastating effect on their retirement savings, because it drops from 12% (for those making less than $50,100) to a 6% savings rate (for upper income earners it drops to 7-8%). This is far below what is needed for retirement. On average 8% of college employees do not take the match. However, twice the college rate -- 15.5% of employees earning $50,000 or less -- do not or cannot take advantage of the match option. Moreover, 84% of college employees who do not elect to make the match earn less than $75,000 (see **Appendix: Table 5**).

Based on these analyses, the CPR identified a set of principles for revising the contribution plan. These are as follows:

Contribution Formula Principles:

1. **Fairness:** The College should contribute a more equitable proportion of salary to the pension plan for all employees. In its current form, the current plan is not fair.

2. **Adequacy**: The plan should provide minimum retirement savings for employees' retirement. This goal takes on particular urgency given likely changes to Social Security Benefits. As noted, lower income employees who do not choose the match option currently have a retirement savings rate of only 6%.

3. **Affordability:** We should aim to keep the aggregate pool of salary plus pension contributions affordable to the College.

4. **Avoid Individual Pension Reductions:** Efforts to make the system fair should ensure that no employees receive a reduction in their College pension contributions.

5. **Foster Employee Responsibility:** Provide incentives for employees to take personal responsibility for providing for their retirement savings.

6. **No Undue Burdens:** Avoid employee pension contributions becoming a financial burden for those in unusual financial difficulties.

<u>Proposal</u>

1. Auto-enrollment:

Employees should be automatically enrolled for the match, requiring that they contribute 3% of their salary to obtain a match from the college. This auto-enroll feature may help to reduce the number of employees who do not choose the match option. We recommend that employees continue to be able to "roll down" to a college match of 2% or 1% consistent with the current options. In this case they need contribute only 2% for a 2% match, or 1% of their salary for a 1% match, respectively. Employees must be able to "opt out" of the match system altogether; a financial consultation meeting with HR is recommended in these cases, to encourage employees to try use the match if possible, and discuss various related issues.

2*. Pension Formula Reform:*

After considering several options (**Appendix: Table 6**), the CPR proposes a formula that sets the core rate to 7.75%, the supplemental rate to 9%, and the break point to the Social Security income maximum (currently $118,500).

In the end the committee favored implementing this formula for several reasons:

A. All employees will benefit from a move to a 7.75%/9% formula with a break point that is indexed to Social Security. As shown in **Table 1**, no employees will see a loss in their benefit.

B. This new formula will make Amherst's pension plan more comparable to our peers and more equitable. Those earning up to about $110,000 will see notable increases. This has the effect of bringing up lower income earners to a more competitive rate and, moreover, it increases the middle range earners sufficiently to increase Amherst rankings such that it ranks Amherst in the top 2, 3 or 4 in all income categories (see **Figure 1**).

C. Amending the retirement plan document such that the break point will track the social security maximum income will allow the formula to automatically keep pace with future changes in the social security maximum income.

D. Implementing this new rate will bring retirement income closer to ideal reimbursement rates (**Appendix: Table 4B**).

E. The cost estimate to implement the 7.75/9% formula is $387,000. The rate can implemented all at once, or incrementally over 3 years (one adjustment every year) or over 5 years (one adjustment every other year). The latter approaches would allow time for it to be fitted within the budget over time, and also allow time for the college to gather information and feedback in order to assess the success of the new formula as it is being implemented. Example implementation tables are shown below.

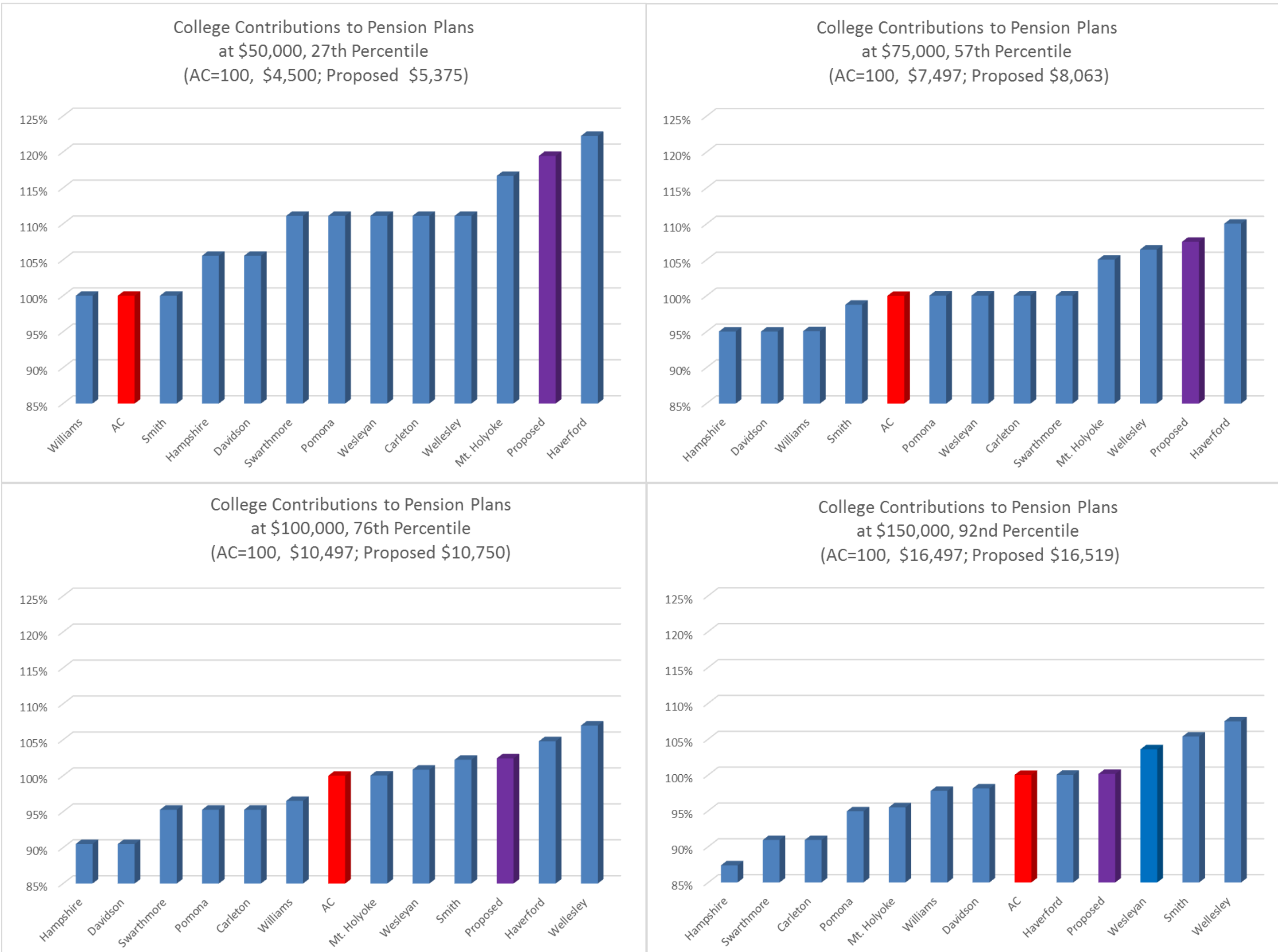
Option (i):

Implementation plan	**Phase 1 (year 1)**
	7.75% / 9%, **3% Match**, $118,500 break point
Cost to annual budget	**<u>$387,000</u>**
Example: $25,000	+$437.50 (+19.4%)
Example: $50,000	+$875 (+19.4%)
Example: $75,000	+$565.50 (+7.5%)
Example: $100,000	+$253 (+2.4%)
Example: $125,000	+$21.75 (+0.2%)
Example: $150,000	+$21.75 (+0.1%)

Option (ii):

Implementation plan	**Phase 1 (year 1)**	**Phase 2 (year 2 or 3)**	**Phase 3 (year 3 or 5)**
	6.8% / 9%, **3% Match**, $68,000 break point	**7.3% /9%,** **3% Match**, $88,000 break point	**7.75%/ 9%,** **3% Match**, Social Security Max.
Cost to annual budget	**<u>$105,000</u>**	**<u>$118,000 + x</u>**	**<u>$164,000 + y</u>**
Example: $25,000	+$200 (+8.8%)	+$125 (+5.1%)	+$112.50 (+4.4%)
Example: $50,000	+$400 (+8.8%)	+$250 (+5.1%)	+$225 (+4.4%)
Example: $75,000	+$7 (+0.09%)	+$221 (+2.9%)	+$337.50 (+4.4%)
Example: $100,000	+$7 (+0.07%)	+$0 (NC)	+$246 (+2.3%)
Example: $125,000	+$7 (+0.05%)	+$0 (NC)	+$14.75 (+0.1%)
Example: $150,000	+$7 (+0.04%)	+$0 (NC)	+$14.75 (+0.09%)

Figure 1: Peer institution rankings of college contribution, according to salary, with rank impact of proposed formula.



*Note: Bowdoin, Middlebury, and Vassar excluded because age-based formulas cannot be compared on the same scale.

Table 1: Comparison of current AC plan with proposed 7.75%/9% plan. Note this is only the college contribution portion.

Salary	Plan comparison: 6%/ 9% Match 3% Break = $50.1K	7.75% / 9% Match 3% Break= $118.5K	Gain
$25,000.00	$2,250.00	$2,687.500	$437.500
$30,000.00	$2,700.00	$3,225.000	$525.000
$35,000.00	$3,150.00	$3,762.500	$612.500
$40,000.00	$3,600.00	$4,300.000	$700.000
$45,000.00	$4,050.00	$4,837.500	$787.500
$50,000.00	$4,500.00	$5,375.000	$875.000
$55,000.00	$5,097.00	$5,912.500	$815.500
$60,000.00	$5,697.00	$6,450.000	$753.000
$65,000.00	$6,297.00	$6,987.500	$690.500
$70,000.00	$6,897.00	$7,525.000	$628.000
$75,000.00	$7,497.00	$8,062.500	$565.500
$80,000.00	$8,097.00	$8,600.000	$503.000
$85,000.00	$8,697.00	$9,137.500	$440.500
$90,000.00	$9,297.00	$9,675.000	$378.000
$95,000.00	$9,897.00	$10,212.500	$315.500
$100,000.00	$10,497.00	$10,750.000	$253.000
$105,000.00	$11,097.00	$11,287.500	$190.500
$110,000.00	$11,697.00	$11,825.000	$128.000
$115,000.00	$12,297.00	$12,362.500	$65.500
$120,000.00	$12,897.00	$12,918.75	$21.750
$125,000.00	$13,497.00	$13,518.75	$21.750
$130,000.00	$14,097.00	$14,118.75	$21.750
$135,000.00	$14,697.00	$14,718.75	$21.750
$140,000.00	$15,297.00	$15,318.75	$21.750
$145,000.00	$15,897.00	$15,918.75	$21.750
$150,000.00	$16,497.00	$16,518.75	$21.750
$155,000.00	$17,097.00	$17,118.75	$21.750
$160,000.00	$17,697.00	$17,718.75	$21.750
$165,000.00	$18,297.00	$18,318.75	$21.750
$170,000.00	$18,897.00	$18,918.75	$21.750
$175,000.00	$19,497.00	$19,518.75	$21.750

APPENDIX

Table 2: What do other college retirement contribution plans look like?

Two-tier Rates:
Amherst: College contributes 6% up to $50,100, 9% thereafter; 3% (1:1) match of employee 3% contribution.

Williams: College contributes 6% up to $62,368, 9% thereafter; 3% (1:1) match of employee 3% contribution.

Pomona: College contributes 10% up to social security limit ($118.5K), 12% thereafter; no match.

Hampshire: College contributes 9.5% up to social security limit ($118.5K), 10% thereafter; no match.

Wesleyan: College contributes 7% up to 80.5K, 10% thereafter; 3% (half) of a 6% employee contribution is matched.

Smith: College contributes 9% up to $60K, 13.3% thereafter; no match.

Davidson: College contributes 8.5% up to social security limit$118.5K, 12.5% thereafter; 1% employee contribution is matched.

Wellesley: College contributes 3% flat rate; then 6% up to half of social security limit, then 9% for income over the second half of Ssec. limit; if employee contributes 3% it will be matched 1%.

Flat Rates:
Haverford: College contributes 11% flat rate; employees required to contribute 5% over $30K.

Carleton: College contributes 10% flat rate; employees required to contribute 2%.

Mt. Holyoke: College contributes 10.5% flat rate; employees required to contribute 5% over $30K.

Swarthmore: College contributes 10% flat rate; employees required to contribute 5.5% over $20K.

Age-Based Rates:
Bowdoin: College contributes 10.12% up to age 49, 12.19% after age 49; plus 4.3% for income portion exceeding 60% of social security limit, regardless of age.

Vassar: Faculty: Age dependent: 26-29yrs 7%; 30-39yrs 11%; 40+ yrs 12%. Staff: 11% flat.

Middlebury: Age dependent: 21-44yrs Employee required to contribute 3%; college contributes 9%. At 45yrs+ employee required to contribute 6%; college contributes 15%.

Table 3: Current retirement contribution system for those who make a 3% match.

Current System 6% up to $50,100 9% > $50,100 **Salary**	**COLLEGE CONTRIBUTION** Core: 6% / 9% Match: 3%	**EMPLOYEE CONTRIBUTION** 3% to get match	**TOTAL DEPOSIT**	**[match] Savings rate (%)**
$5,000	$450	$150	$600	12.0
$10,000	$900	$300	$1,200	12.0
$15,000	$1,350	$450	$1,800	12.0
$20,000	$1,800	$600	$2,400	12.0
$25,000	$2,250	$750	$3,000	12.0
$30,000	$2,700	$900	$3,600	12.0
$35,000	$3,150	$1,050	$4,200	12.0
$40,000	$3,600	$1,200	$4,800	12.0
$45,000	$4,050	$1,350	$5,400	12.0
$50,000	$4,500	$1,500	$6,000	12.0
$55,000	$5,097	$1,650	$6,747	12.3
$60,000	$5,697	$1,800	$7,497	12.5
$65,000	$6,297	$1,950	$8,247	12.7
$70,000	$6,897	$2,100	$8,997	12.9
$75,000	$7,497	$2,250	$9,747	13.0
$80,000	$8,097	$2,400	$10,497	13.1
$85,000	$8,697	$2,550	$11,247	13.2
$90,000	$9,297	$2,700	$11,997	13.3
$95,000	$9,897	$2,850	$12,747	13.4
$100,000	$10,497	$3,000	$13,497	13.5
$105,000	$11,097	$3,150	$14,247	13.6
$110,000	$11,697	$3,300	$14,997	13.6
$115,000	$12,297	$3,450	$15,747	13.7
$120,000	$12,897	$3,600	$16,497	13.7
$125,000	$13,497	$3,750	$17,247	13.8
$130,000	$14,097	$3,900	$17,997	13.8
$135,000	$14,697	$4,050	$18,747	13.9
$140,000	$15,297	$4,200	$19,497	13.9
$145,000	$15,897	$4,350	$20,247	14.0
$150,000	$16,497	$4,500	$20,997	14.0
$155,000	$17,097	$4,650	$21,747	14.0
$160,000	$17,697	$4,800	$22,497	14.1
$165,000	$18,297	$4,950	$23,247	14.1
$170,000	$18,897	$5,100	$23,997	14.1
$175,000	$19,497	$5,250	$24,747	14.1

TABLE 4. Income Replacement estimates

A. Current AC formula; 34 year savings, 5% return, 3% annual raise, 7% pension factor, 2% inflation, and Center for Retirement Research estimates and data.

	6%/9%; Formula	$50,100 break		Income
Salary	403(b) Contrib %	Social Sec. %	403(b) %	Replacement Rate
25000	[12%]	53.49%	40.89%	**94.38%**
50000	[12%]	40.70%	40.89%	**81.59%**
75000	[13%]	41.16%	44.29%	**85.45%**
100000	[13.5%]	35.04%	46.00%	**81.04%**
125000	[13.8%]	25.69%	47.02%	**72.71%**
150000	[14%]	21.41%	47.70%	**69.11%**
175000	[14.1%]	18.35%	48.04%	**66.39%**

B. Proposed 7.75%/9%, 118.5 break point rate; same assumptions as A

	7.75%/9% Formula	$118,500 break		Income
Salary	403(b) Contrib %	Social Sec. %	403(b) %	Replacement Rate
25000	[13.75%]	53.49%	46.85%	**100.34%**
50000	[13.75%]	40.70%	46.85%	**87.55%**
75000	[13.75%]	41.16%	46.85%	**88.01%**
100000	[13.75%]	35.04%	46.85%	**81.89%**
125000	[13.82%]	25.69%	47.09%	**72.78%**
150000	[14.01%]	21.41%	47.73%	**69.14%**
175000	[14.15%]	18.35%	48.21%	**66.56%**

*Social Security replacement rates are based on estimates made by the center for retirement research (http://crr.bc.edu/social-security-replacement-rate-data/).

Table 5: Current retirement contribution system for those who do NOT make a match (n= 64).

Proportion **NOT** making match	**Current System:** 6% up to $50,100 9% > $50,100 **Salary**	**COLLEGE CONTRIBUTION** Core: 6% / 9% NO MATCH	**EMPLOYEE CONTRIBUTION** NONE	**TOTAL DEPOSIT**	**[no match] Savings rate (%)**
15.5%	$5,000	$300	$0	$300	6.0
	$10,000	$600	$0	$600	6.0
	$15,000	$900	$0	$900	6.0
	$20,000	$1,200	$0	$1,200	6.0
	$25,000	$1,500	$0	$1,500	6.0
	$30,000	$1,800	$0	$1,800	6.0
	$35,000	$2,100	$0	$2,100	6.0
	$40,000	$2,400	$0	$2,400	6.0
	$45,000	$2,700	$0	$2,700	6.0
	$50,000	$3,000	$0	$3,000	6.0
8.8%	$55,000	$3,447	$0	$3,447	6.3
	$60,000	$3,897	$0	$3,897	6.5
	$65,000	$4,347	$0	$4,347	6.7
	$70,000	$4,797	$0	$4,797	6.9
	$75,000	$5,247	$0	$5,247	7.0
2.6%	$80,000	$5,697	$0	$5,697	7.1
	$85,000	$6,147	$0	$6,147	7.2
	$90,000	$6,597	$0	$6,597	7.3
	$95,000	$7,047	$0	$7,047	7.4
	$100,000	$7,497	$0	$7,497	7.5
5.5%	$105,000	$7,947	$0	$7,947	7.6
	$110,000	$8,397	$0	$8,397	7.6
	$115,000	$8,847	$0	$8,847	7.7
	$120,000	$9,297	$0	$9,297	7.7
	$125,000	$9,747	$0	$9,747	7.8
3.7%	$130,000	$10,197	$0	$10,197	7.8
	$135,000	$10,647	$0	$10,647	7.9
	$140,000	$11,097	$0	$11,097	7.9
	$145,000	$11,547	$0	$11,547	8.0
	$150,000	$11,997	$0	$11,997	8.0
0.0%	$155,000	$12,447	$0	$12,447	8.0
	$160,000	$12,897	$0	$12,897	8.1
	$165,000	$13,347	$0	$13,347	8.1
	$170,000	$13,797	$0	$13,797	8.1
	$175,000	$14,247	$0	$14,247	8.1

Table 6: Alternative retirement contribution formulas considered by the CPR

Option:	**7.26% Flat, 3% Match**	**7.5% Flat, 3% Match**	**7.75% Flat, 3% Match**	**8% Flat, 3% Match**	**8%/9.5%, 2% match**	**8.5% Flat, 3% Match**	**4%/3.5%Match <50K/75K**
Cost to annual budget	**$0**	**$153,000**	**$312,000**	**$472,000**	**$196,000**	**$791,000**	**$171,000**
# people with *a relative gain*	***546***	***610***	***673***	***738***	***≥738***	***~800***	***458***
# people with *a relative loss*	***256***	***192***	***129***	***64***	***≤64***	***3?***	***0***
Example: $25,000	+$315 (+14%)	+$375 (+16.6%)	+$437.50 (+19.4%)	+$500 (+22.22%)	+$250 (11%)	+$625 (+27%)	+$250 (11%)
Example: $50,000	+$630 (+14%)	+$750 (+16.6%)	+$875 (+19.4%)	+$1000 (+22.22%)	+$500 (+11%)	+$1250 (+27%)	+$500 (+11%)
Example: $75,000	+$198 (+2.6%)	+$378 (+5.0%)	+$565 (+7.6%)	+$753 (+10%)	+$376.50 (+5.0%)	+$1153 (+15%)	+$375 (+5.0%)
Example: $100,000	-$237 (-2.4%)	+$3 (+0.03%)	+$253 (+2.4%)	+$503 (+4.8%)	+$252 (+2.4%)	+$1003 (+10%)	NC
Example: $150,000	-$1107 (-6.4%)	-$747 (-4.5%)	-$372 (-2.2%)	+$3 (+0.02%)	+$1.50 (not much%)	+$753 (+5%)	NC