

## Executive Summary of “A Nine-Month Pay Option”:

About 910 VU faculty are on 9-month contracts or, equivalently, on a 9-month salary but they are on a 12-month pay schedule. Following is the motion and then a summary of the main points of "Nine-Month Pay Option for Academic Faculty" by Senators Michael Mihalik, Joel Tellinghuisen and Myrna Wooders

**Motion:** That the Faculty Senate recommend allowing academic year faculty to choose between a 9-month pay schedule and a 12-month pay schedule and; that this choice be allowed all new and current academic year faculty.

## Motivation for a Nine-Month Pay Option for Academic Faculty

1. *The Principle*. We are paid a salary for 9 months over 12 months. There is no good justification for faculty to make an interest-free loan of a portion of their salaries to the University, which is effectively what happens with the 12-month pay schedule.
2. *Convenience*. Faculty may benefit from having their pay paid when it is earned. In any case, faculty are responsible for their own financial affairs.
3. *Clarity*. A 9-month pay schedule for 9 months of salary is *clear, transparent and simple*. The existence of a 9-month pay option makes clear that our contracts are for 9 months each year.
4. *Faculty Satisfaction*. According to the 2009-2010 Faculty Pay Schedule Survey, over 37% of the respondents would prefer that VU offer a 9-month pay option. This represents *over 300 faculty members*.
5. *The Interest and the Principle*. Faculty are entitled to the interest earned on savings of their own pay. The 12-month payout of 9-month salary is equivalent to a loan by a faculty member of *1/8th of salary* every year. There is a principle of entitlement to one's earnings and interest income on any savings on those earnings.

## Costs and Benefits to the University

1. Using an interest rate of 4%, an uptake-of-the-option rate of 20% (greater than the rate given by the 2010 Survey), and total compensation of \$145,000 per faculty member per year, the total interest cost to the University is *\$131,950 per year*. In email correspondence, VC Jerry Fife confirms that this is a reasonable estimate. Appendix A of the full document, "A Nine Month Pay Option," explains the calculation.
2. There may be *benefits* that we cannot well-estimate.
  - a). Faculty members may calculate their monthly take home pay with the 9-month pay option and, with this in mind, they may be more inspired to apply for grants that include summer pay. The overhead on a couple of nice grants could more than offset the decrease in interest income.
  - b). Clarity of contracts would be helpful to administrators and could save much time.
  - c). With the option available, provision of a 12-month pay schedule becomes a service to the faculty instead of an imposed no-interest-bearing savings plan.

## An Example for a Hypothetical Employee.

Consider a hypothetical academic-year faculty member whose total annual compensation is \$145,000. Let us suppose that his net take-home pay, after all deductions, is \$100,000.

Under the 12-month pay schedule, the faculty member has a net pay (deposited in his bank or paid by check) of \$8333.30 for each of the 12 months of the year. Under the 9-month pay schedule, the faculty member has a net pay of \$11,111 for each of the 9 months of the academic year. Nothing else changes.

Although we all know this, let us note that it is easy for an individual faculty member to arrange with their bank to put 1/4 of their salary each month into an interest-bearing savings account. If the faculty member wants to strengthen their commitment to the savings plan, it can even be done so that penalties are imposed on early withdrawals. In any case, an academic-year faculty member may simply choose to remain on the 12-month pay schedule.

## A Nine-Month Pay Option for Academic-Year Faculty

by

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Michael Mihalik

and

Myrna Wooders<sup>1</sup>

Revised February 9, 2014.

At the December 2013 meeting of the Faculty Senate a motion was made by Senators Michael Mihalik, Joel Tellinghuisen and Myrna Wooders that Vanderbilt University offer its academic-year faculty a nine-month pay schedule option allowing their academic-faculty pay schedule to coincide with their salary schedule. This memo outlines motivation for the motion and also discusses potential costs and benefits to University Central.

Vanderbilt academic faculty, nine hundred and ten in total at this time, are on nine-month contracts or, equivalently, on a nine-month salary; that is, academic-year faculty fulfil obligations to the University during the nine months of the academic year.<sup>2</sup> Academic-year faculty may therefore accept other employment for the three months of the summer. Thus, for example, academic faculty may have grants that pay summer salary. Here at VU, however, academic faculty are *paid* according to a *twelve-month* pay schedule.

Offering a nine-month pay schedule would not have any impact on the obligations of faculty to the University nor on total compensation. Effort reporting would be unchanged; both faculty choosing the nine-month option and those remaining on the twelve-month option would report effort as they do now. At other universities offering a nine-month pay schedule option, benefits deducted from total compensation are the same for faculty choosing the nine-month and the twelve-month option and we expect that this would also hold for Vanderbilt.

VU faculty members are professionals. During the summer, we suppose that by and large faculty will continue to do what they currently do. They

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<sup>1</sup>We am indebted primarily to Dean George Sweeney and Vice Chancellor Jerry Fife who have both been extremely helpful. This document has also benefitted from comments on the nine-month pay option by Senators Kathy Anderson, Joyce Johnson, Lillian Nanney, Jim Steiger and from the work of the 2009-2010 Faculty Life Committee, headed by Senator Nanney.

<sup>2</sup>Some faculty undertake administrative responsibilities that can extend their obligations by two more months (and increase their pay by two-ninths).

will continue to care for their graduate students, to prepare for fall teaching assignments, and to carry on with their research and other professional obligations. We also suppose that academic-year faculty are able to take care of their own personal financial responsibilities and will do so.

We first outline the benefits to the faculty of a nine-month salary option and then the potential costs and benefits to VU. Appendix A consists of the details behind our cost estimate. Appendix B is an example for a hypothetical employee.

### Motivation for a Nine-Month pay Option for Academic Faculty

1. *The Principle.* We are paid a salary for nine months over twelve months. There is no good justification for faculty to make an interest-free loan of a portion of their salaries to the University, which is effectively what happens with the twelve-month pay schedule.<sup>3</sup> The introduction of a nine-month pay option would not prevent the university, however, from continuing to provide the service of smoothing the pay schedule of faculty who choose to remain on the twelve-month schedule.
2. *Convenience.* Faculty, especially junior faculty members or faculty who are new to VU, may benefit from having their pay paid when it is earned. In any case, faculty are responsible for their own financial affairs.
3. *Clarity.* A nine-month pay schedule for nine months salary<sup>4</sup> is *clear, transparent and simple*. The existence of a nine-month pay option, even if taken up only by a portion of the faculty, makes our *nine-month* salary more prominent; it makes clear that our contracts are for nine months each year.<sup>5</sup>

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<sup>3</sup>The main reason that we have heard to far is that the administration, at the highest levels, is concerned that faculty members may be improvident, unable to manage their personal finances (apparently unlike faculty at Stanford, Wash U., Indiana and many other universities, and also unlike thousands of school teachers).

<sup>4</sup>Some contracts explicitly uses the words "nine-month salary".

<sup>5</sup>The terms of our nine-month contracts – that our salary is for nine-months, even though paid in twelve months installments – are not uniformly well-known among administrators and academic-year faculty. If not all Deans, Department Heads, and academic year faculty members do not recall that we are paid a nine-month salary then we cannot expect individuals on twelve-month contracts to be familiar with the terms of the nine-month salary. This could be problematic. For example, one subcommittee of the Faculty

4. *Faculty Satisfaction.* According to the 2009-2010 Faculty Pay Schedule Survey, over 37% of the academic-year faculty respondents would prefer that VU offer a nine-month pay option.<sup>6</sup> Note that not all faculty who would prefer that VU offer the option indicate that they would themselves choose the option. But nevertheless, their preferences surely count. Consider, for comparison, the following: In 2012 the Faculty Senate endorsed a report on breast-feeding stations around campus and resources for managers. Probably few faculty, however, will actually use the breast-feeding stations. Nevertheless, the Faculty Senate vote indicated that its members preferred the adoption of the report. Faculty satisfaction is all about preferences.
5. *The Interest and the Principle.* Faculty are entitled to the interest earned on savings of their own pay. The twelve-month payout of nine-month salary is equivalent to a loan by a faculty member of *one-eighth* of salary for one year.<sup>7</sup> These interest savings would not be large for an individual faculty member but there is a principle of entitlement to one's earnings and interest income on any savings on those earnings. While some faculty members may well choose to remain on the twelve-month pay schedule for their own convenience, this leaves the principle unaffected.

### Costs and Benefits to the University

Accountants and IT people at VU are constantly updating systems. Our benefit options are updated each year, for example and there are changes in

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Senate is dealing with property rights to online education resources. Members of such committees need to be completely clear about our nine-month salary contracts.

<sup>6</sup>To see this, in the "Faculty Payroll Options Survey" one must add the 70 faculty in the first table in the survey who would choose the option to the 89 faculty who would prefer that VU offer the option but would themselves remain on the 12-month pay schedule in the third table and divide by the total number of respondents, 426. This gives  $\frac{159}{426} = 0.37324$ .

<sup>7</sup>A faculty member on a twelve-month salary may consider whether he or she would like to lend 1/8th of their salary to the University as an interest free loan or to make a comparable gift to the University. According to the Vanderbilt Institutional Research Group (VIRG), in 2007 there were 2037 Medical faculty. If these faculty, like the academic year faculty, lent the University 1/8th of their salaries each year, the revenue to the university from interest on withheld earnings would triple (assuming that medical faculty are paid equally as well as academic-year faculty).

The calculations behind this appear in Appendix A.

tax laws that need to be taken into account. To implement a nine-month pay option would require some accounting and IT work but it seems the sort of thing that could be handled with existing personnel. For comparison, having an accountant prepare a moderately complicated tax return for an individual VU faculty member can cost in the neighborhood of \$1,000 (which includes earnings for an accountant plus overhead costs plus profit). So, to do more generic modifications – some tweaking – to existing accounting systems for tax returns may take, say, \$5,000 worth of the time of an accountant. (Since VU is a nonprofit organization and since the facilities already exist, this seems a generous estimate.) Then some IT work will be required. Our experience in dealing with software developers suggests that \$3,000 worth of a developers time would be adequate. Note that these are largely one-time costs.

A cost to University Central is the interest earnings of the University on withholdings of portions of salaries of academic-year faculty. Using an interest rate of 4%, an uptake rate of 20%, and total compensation of \$145,000 per year<sup>8</sup>, we estimate the total interest cost to the University as \$131,950 per year. The detailed calculations are in Appendix A. This is of course an estimate. Salaries increases may be larger. Or, if senior faculty leave and are replaced by junior faculty, salaries may decrease. But it would be hard to argue that our estimate is not within, say, \$40,000 of the actual loss (or gain) that would occur.

Appendix B provides a hypothetical example from the viewpoint of an individual faculty member, illustrating how this would affect total take-home pay; annual take-home pay is unchanged, as are benefits. All that changes is when pay arrives in the bank of the faculty member.

There may be benefits that we cannot well-estimate. Faculty members may calculate their monthly take home pay with the nine-month pay option and, with this in mind, they may be more inspired to apply for grants that include summer pay. The overhead on a couple of nice grants could more than offset the decrease in interest income.

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<sup>8</sup>The average annual total compensation for VU faculty in 2012-2013 was \$139,800 (from *Academe*). We anticipate that salaries will go up so we have used the estimated average annual salary as \$145,000.

## Appendix A: Estimate of the Lost Income to Vanderbilt University of Introducing a Nine-Month Pay Option for Academic-Year Faculty

The following are the calculations involved in estimating the cost to Vanderbilt University in terms of interest income forgone with the adoption of a nine-month pay schedule as \$131,950.

To estimate the interest that would be forgone by VU with a nine-month pay schedule option, we first estimate the total compensation for a faculty member per month for nine month. In a recent publication *Academe* states that the total yearly compensation for the average faculty member at VU was \$139,800. per year.<sup>9</sup> (Note that total compensation is larger than total salary because it includes the University's contribution to retirement and various taxes.)<sup>10</sup> We will use the number \$145,000 since the there may be salary increases. Thus, our estimate of the average total compensation per month is  $\frac{145,000}{9}$ , which we will call *AMC*.

With the twelve-month pay schedule, the university withholds roughly<sup>11</sup> one-quarter of the *AMC* for each academic-year faculty member. We can view the money withheld during the three first three months as covering the first summer month pay. Thus, earnings for the first month of the academic year accumulate interest for nine months, the earnings for the second month accumulate interest for eight months, and earnings for the third month accumulate interest for seven months. Thus, one-quarter of the *AMC* will collect interest for  $(9 + 8 + 7)$  months. Withholdings of salary for the next three months of the academic year covers the second summer month pay so one-quarter of the *AMC* will collect interest for  $(7 + 6 + 5)$  months. Skipping to the conclusion, in total, the number of months for which  $\frac{1}{4} \times AMC$  of the *AMC* would earn interest is given by:

$$((9 + 8 + 7) + (7 + 6 + 5) + (5 + 4 + 3)) = 54.$$

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<sup>9</sup>The number \$139,800 is from the annual 2012-2013 "salary edition" of the AAUP publication *Academe*. The appendices of that issue include average salaries by rank by school. Here is a link to the relevant pages of *Academe*: <http://www.aaup.org/appendices-2012-13-annual-report-economic-status-profession>.

<sup>10</sup>It may be that using total compensation instead of total salary leads to some overestimation of interest income forgone by the University.

Also, with a nine-month pay option, the university may withhold benefits, such as medical insurance, for the payments during the summer, which would also reduce the interest cost to the University.

<sup>11</sup>See the qualification in the prior footnote.

**Remark 1:** Note that withholding of  $\frac{1}{4} \times AMC$  for 54 months equals withholding of  $\frac{1}{4}$  of  $\frac{\text{Total Compensation}}{9}$  for  $\frac{54}{12}$  years, which equals withholding, for one year,

$$\frac{1}{4} \times \frac{\text{Total compensation}}{9} \times \frac{54}{12} = \frac{1}{8} \times \text{Total compensation}.$$

We will also need an estimate of the interest rate that might apply. The Vanderbilt University’s annual financial report (available from the Office of Finance web site: <https://finance.vanderbilt.edu/report/>), Section 10, starting on page 27, discusses “Long-Term Debt, Capital Leases, and Commercial Paper.” Footnote 2 of the table there, that refers to the column “Fiscal 2103 Effective Interest Rate,” states: “Exclusive of interest rate exchange agreements. Inclusive of these agreements, the overall portfolio effective interest rate was 5.1%.” This, however, is a long term rate, while pay withholdings are for short terms. The University, however, would probably receive a favorable interest rate on its short term savings so we will take the interest rate at 4% and the monthly rate as  $\frac{1}{12}th$  of this so the interest on the withholdings  $\frac{1}{4}AMC$  would be the fraction  $\frac{1}{12} \times \frac{4}{100}$  of  $\frac{1}{4}AMC$ .

There are 910 academic-year faculty. The Faculty Life Committee report from 2009-2010 states that 16.4% percent of the faculty that responded to their survey would take up the nine-month pay option. We also sought to back-up the survey data by findings on what fraction of faculty at universities offering a nine (or ten) month pay option actually took up the option. At Stanford,  $\frac{1}{5}th$  of faculty take up the option and at Washington University  $\frac{1}{10}th$  take up the option. But, wishing to error on the side of overestimation, we will assume, for the purposes of our calculations that 20% ( $\frac{1}{5}th$ ) of the 910 academic year faculty at Vanderbilt University will take up the nine-month pay option.<sup>12</sup>

We can now estimate total interest earnings forgone by the University if it were to institute a nine-month pay option:

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<sup>12</sup>We could have sought data from a larger number of universities offering a nine (or ten) month option. If it is important to have such information, our administration is in a better position to obtain it than we are. We do have, of course, an estimate based on the 2009-2010 VU survey of slightly over 16%. The data from Stanford and Washington University simply show that the survey data is reasonably consistent with observed outcomes at, at least, two other private universities comparable to Vanderbilt.

$$54 \times \left(\frac{1}{4} \times \frac{145000}{9}\right) \times \left(\frac{1}{12} \times \frac{4}{100}\right) \times 182 = 131,950.$$

**Remark 2:** Using Remark 1, note that this is equivalent to

$$\frac{1}{8} \times \text{Total Compensation} \times \frac{4}{100} \times 182.$$

Thus, the reader can easily choose Total Compensation, the interest rate and uptake rate to obtain their own estimates.

This is, of course, only an estimate. One might argue that a larger percentage of faculty would take up the nine-month option but we have no reason to think that the uptake rate would be substantially different than the 16.4% given by the faculty survey; we used 20% just to err on the side of overestimating the costs to the University. Or one might argue that most faculty members who would take up the option would be those that earn over \$200,000 per year. Or that the interest rate is too small (or too large). We have done some other estimates using different values for the interest rate, the total compensation of those who would take up the option, and the percentage that would take up the option. We believe that it is extremely unlikely that the actual cost to the University of allowing a nine-month pay option would differ from the estimated amount by more than plus or minus \$40,000.

**Remark 3.** Note that, according to our estimates, the *benefit* to the University under the twelve-month pay schedule totals  $131950 \times 5 = \$659,750$ . If 20% of the faculty take up a nine-month salary option then the University will still earn \$527,800 for providing an income-smoothing service to faculty who wish to take advantage of the service. (Note however that if our estimates above are overestimates of the costs to the University, the estimates here are also overestimates.)

If it is good for the academic-year faculty to have to lend money to the University at zero interest, then might we consider the benefit to the University budget if *all* faculty made such contributions. Without looking into exact figures, we estimate that if the Medical faculty members all made an interest free loan to the University of  $\frac{1}{8}th$  of their salary each year, then the University revenues from salary withholdings would increase to at least \$1,500,000 and possibly to more than \$2,000,000 each year.



If the Faculty Senate votes in favor of our proposal and the administration does not accept the recommendation of the Faculty Senate, then the administration will have the opportunity to present its own case.

## Appendix B. An Example for a Hypothetical Employee.

Consider a hypothetical academic-year faculty member whose total annual *compensation* is \$145,000. This amount includes the 5% supplement to total salary that all faculty receive, 5% matching contribution to retirement contribution, and 7.65% employer's share of FICA taxes.<sup>13</sup> The 5% supplement is paid out as just as salary. From his salary plus supplement the individual must pay various taxes and also pays for additional benefits. Let us suppose that his net take-home pay, after all deductions is \$100,000.

Under the twelve-month pay schedule, the faculty member has a net pay (deposited in his bank or paid by check) of  $\frac{\$100000}{12} = \$8333.30$  for each of the twelve months of the year. Under the nine-month pay schedule, the faculty member has a net pay of  $\frac{\$100000}{9} = \$11,111$  for each of the nine months of the academic year. Nothing else changes. The faculty member can easily be informed that the nine-month option implies there will be only nine paychecks and VU does not accept any responsibility for how employees manage their personal finances. In particular, the University is not in the lending business.

From the viewpoint of the University, taxes and benefits costs deducted from the nine-month salary would be paid out as required by the government and the providers of benefits, as they are now. The difference between the total compensation and the total salary could be taken care of exactly as it is now.

Although we all know this, let us note that it is easy for an individual faculty member to arrange with their bank to put 1/4 of their salary each month into an interest-bearing savings account. If the faculty member wants to strengthen their commitment to the savings plan, it can even be done so that penalties are imposed on early withdrawals. In any case, an academic-year faculty member may simply choose to remain on the twelve-month pay schedule.

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<sup>13</sup>The 5% supplement is paid to all faculty; hence this is an exact figure. Although faculty are required to contribute only 3% to retirement, it is in line with the figures given in *Academe* to suppose that most faculty earn the maximum matching contribution of 5%. The 7.65% for FICA is definitely an overestimate, since that rate drops to 1.45% for the excess of salary over \$117,000 (for 2014). [That 7.65% is the sum of OASDI: 6.2% for salary up to \$117K; Medicare: 1.45% on salary up to \$200K plus 0.9% for portion of salary in excess of \$200K.] Thanks to George Sweeney for this!