

Report of the Special Joint Committee on Inversion, Compression, and Salary Floors

February 14, 2008

Introduction

In the fall of 2007 a committee was formed at The University of Montana (UM) at the request of the Office of the Provost to examine salaries of faculty as they relate to inversion, compression, and salary floors. Members of the Committee are listed in Appendix One. The need to address these issues was identified during the last round of collective bargaining at The University of Montana, when a Letter of Understanding was signed by representatives of the University Faculty Association (UFA) and UM Administration on June 4, 2007, as a Tentative Agreement to review these issues during the 2007-08 academic year. The approach to bring the UFA and UM administration together to consider jointly a favorable approach to the problem demonstrates a willingness for a practical solution to advance the interests of all parties to support academic excellence.

Problem Statement

Inversion and compression are conditions where salary compensation for productive senior employees does not keep pace with market forces. Compression is the narrowing of salary differentials over time between junior and senior people in the same job, such that there is a relatively small difference in salary between employees regardless of their skills or experience. Inversion is an extreme form of compression, and it refers to a condition where a new junior employee is hired at a market-based salary that exceeds that of an accomplished senior employee at the same or higher rank within the organization – for example, an assistant professor whose salary exceeds that of a productive associate professor.

In its 2007 Advisory Report to the Board of Regents, the Montana University System Recruitment and Retention Task Force identified that the conditions of inversion and compression “have a long term effect of inhibiting an employer’s ability to retain employees because these conditions are perceived as widely unfair” (p.8). The Task Force recommended system-wide efforts to address inversion and compression.

Inversion and compression are pernicious threats to the vitality and long-term success of The University of Montana. These conditions affect faculty engagement which can reduce the quality of scholarship, teaching, and service at the university. In addition, this condition generates a financial liability that will not be easily paid for by taxpayers and students.

Research has demonstrated that performance quality is directly linked to employee engagement.¹ Employee engagement is the degree to which an employee chooses to expend the extra effort needed to achieve excellence. Employee engagement is influenced by a variety of factors including a perception of equity in pay, recognition, and reward practices.

¹ [Paradise, Andrew](http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=28095165&site=ehost-live). “Influences of Engagement” *Training and Development*. Jan 2008, 62/54-59 retrieved <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=28095165&site=ehost-live>

Faculty will experience the inequity of compression when no remedies exist to adjust their pay. As productive senior faculty advance in their profession yet do not keep up with markets in their compensation, they tend to disengage from additional activities and service. It often takes years to accumulate the knowledge and sophistication to be a high performer in a given discipline. At the very time the university could reap the rewards of faculty becoming leaders in their fields, they begin to disengage from students and even their professional peers. The overall quality of the university declines, since the highest level of capacity has been debilitated. This will erode the hard fought gains in attracting and retaining outstanding faculty who, in turn, are relied on to create academic excellence.

The results of inversion and compression expose Montana taxpayers to costly financial liabilities. Faculty who are paid below that of their peers in the market will look for other opportunities. In the 2006- 2007 academic year, the primary reason for voluntary terminations for all faculty titles was for career advancement and the third reason was for pay. In addition, the trend of voluntary resignations (not including retirement) has increased since 2005. There is a clear indication that the influence of compression is increasingly impacting retention.

The practice of suppressing senior faculty base salaries creates a liability in two ways. The first is the liability of salary replacement expenses. This liability will become due when the university must attract a qualified, experienced faculty by paying a salary that is comparable to what other peer universities are paying. By not providing a remedy to existing senior faculty base salaries, a long term market encumbrance (liability gap) grows over time and will eventually become due when a vacancy occurs.

The second liability is the cost of filling the vacancy. In addition to the above expense, salaries paid to cover classes, search costs, start-up costs, and the relatively low productivity while adjusting to a new job all place burdens on budgets. The cost of turnover within an organization climbs annually. Put simply, it is far cheaper to retain faculty than replace them.

Magnitude of the problem

The extent of the problem at The University of Montana is revealed by an examination of faculty salaries over time. Data collected by the Office of Planning, Budget, and Analysis were provided to the Committee describing faculty compensation by discipline, professorial ranks, and hire dates at The University of Montana. The data also provided both average and median-to-median comparisons of faculty salaries between UM and peer institutions. (Note: Medians offer the most useful comparative metrics, although average salaries are more appropriate in estimating the adjustments described later in this report). The data reveal unequivocal results: normal salary raises received by UM faculty have not kept pace with a rising market in faculty salaries. At the Assistant Professor level, UM median salaries are comparable to other institutions (90.6%), but at the Professorial rank, UM median salaries are only 78.3% of our peers. On an individual level there are not many professors of senior rank that compare favorably with peer institutions. A summary of the comparison of UM faculty salaries to those of our peer universities, based on the CUPA National Faculty Salary Survey of 2006-07, is provided in Table One below. The more detailed CUPA Salary Survey data, broken out by discipline, is available from the Committee upon request.

Table One: Faculty Salary Comparison Between UM and Peer Institutions

Code/Title	The University of Montana			Comparison Group			UM as Percentage of Comp Group	
	N	Average	Median	N	Average	Median	Average	Median
ALL DISCIPLINES REPORTED BY FOCUS UNIT COMBINED								
OVERALL INDEX	481	61,829	59,013	16,842	73,653	65,164	83.9	90.6
Professor	193	73,886	68,202	5,936	91,852	87,133	80.4	78.3
Associate Professor	135	57,558	54,858	5,283	67,633	64,894	85.1	84.5
Assistant Professor	131	52,704	48,977	4,872	58,548	54,053	90.0	90.6
New Assistant Professor	21	55,643	50,000	369	60,146	49,800	92.5	100.4
Instructor	22	36,587	35,530	751	40,879	35,465	89.5	100.2

The issue of salary floors of UM faculty was also addressed by the Committee, and it appears to have a much different level of significance than the inversion/compression issue. The last time salary floors were raised on the UM campus was just prior to the 2000-01 academic year. Salaries floors at all ranks were raised by 1.8%, such that salary floors are now at the following levels: Full Professors - \$47,175; Associate Professors - \$37,503; Assistant Professors - \$30,054; and Instructors - \$26,187. As can be seen by comparing these floor levels with the median salary levels of UM faculty in Table One, these salary floors are very low. Even if salary floors had increased at a rate of 1.8% each year for all ranks since the last adjustment in 2000-01, only a handful of UM faculty would fall below these salary floors. From the Committee's point of view the salary floor issue is not nearly as serious as the problems surrounding inversion and compression. At this time the Committee recommends deferring decisions on salary floors until a later time.

Recommendations

Principles

Before describing the committee's recommended approach, a brief set of principles are offered to guide any changes in compensation of higher ranked faculty. These principles are intended to sustain fair, well-tested processes of salary determination within the Montana University System. They are:

- (1) Any salary adjustments to address inversions and compression will be in addition to any scheduled allocations to the pay plan;
- (2) Adjustments will be in addition to the merit and promotion packages;
- (3) Adjustments will be based on an annual review that prioritizes inequities and remedies; and
- (4) Distributions of salary adjustments will be recognized as part of the Collective Bargaining Agreement.

Linking a short and long term strategy

To address the problem of inversion and compression, the Committee recommends a strategy that remedies the immediate disparities and ensures that the inversion and compression problems do not reemerge to threaten the university. A linked approach will allow the remedies to be sustainable and reduce the overall financial burden. Overcoming the compression/inversion problem would involve two phases:

- **Phase one, short term strategy:** Set a target to reduce compression of salaries at The University of Montana by bringing senior level faculty salaries (ranks of associate and full professors) to a position of proportional parity to salaries of similarly ranked faculty at peer institutions. This proportional parity will be measured by the ratio of salaries of UM assistant professors to assistant professors at peer institutions, since this entry level rank is most sensitive to market forces. Thus, since UM assistant professors are currently paid at 90% of the salaries of assistant professors at peer institutions (Table One, average salaries), the targets for salaries of UM associate professors and full professors would be 90% of the associate and full professor salaries at peer institutions. This salary adjustment should be sufficient to retain an engaged senior-level faculty. The short term strategy to approach parity with peer institutions would be implemented over a four year period to reduce the cost in any given year.
- **Phase two, long term strategy:** Establish an annual process that evaluates trends in faculty salary by discipline. This review of salaries would allow an examination of the ongoing pressure of market forces on faculty salaries by each discipline. Since new faculty are hired at or around market rates, it will reveal when incidences of inversion or compression occur. Remedies would be made on an individual basis, allowing for less costly adjustments before inversion/compression again becomes a systemic problem.

Implementation and Evaluation

Three criteria will be applied to evaluate the effectiveness of reducing salary compression at The University of Montana: (1) Faculty turnover; (2) Cost replacement for faculty; and (3) Faculty engagement. Data is currently collected on the first two criteria, via annual Vacancy Analysis Reporting and Turnover Reporting. Since the current trends show an undesirable and costly level of faculty turnover, it will be possible to recognize changes in turnover over the four year implementation period of Phase One. Since turnover can be attributed in large

measure to salary compensation, the recommended changes in compensation to reduce compression should show a change in the rate of turnover. Additionally, data collected on the cost of replacing faculty can be applied to understand actual cost savings to The University of Montana and Montana taxpayers. The level of faculty engagement will require new primary data collection to understand the effects of recommended salary adjustments. During calendar year 2008 the UM Human Resources Office will provide leadership on creating baseline data on faculty engagement. Each year a sample of faculty will be surveyed to collect information on engagement, utilizing recognized, standard indicators. Trends in increased engagement would potentially identify a positive result from the proposed remedy.

Financial implications of the remedy

As mentioned above in the Phase One recommendation, the costs of addressing the inversion/compression problem would be spread over four years. Based on current CUPA data, the overall four-year cost to raise senior ranked faculty who are eligible for salary adjustments to 90% of the average salary of peer institutions would be \$2.14 million dollars, or roughly \$500,000 a year. For an individual faculty member the estimated average increase for eligible Full Professors would be \$8,781 and for eligible Associate Professors would be \$3,312. Appendix Two provides more complete data on the generation of the totals mentioned above.

Conclusion

Securing and keeping the highest quality faculty is the foundation of a successful university. The University of Montana has made remarkable strides in the past decade in attracting extraordinary talent among both students and faculty, improving the capacity of the university to compete in the future. These advances have allowed The University of Montana to provide direct benefits the people of Montana in terms of new job creation, business starts, and investment in Montana's economy. These advances can only be sustained by retaining an engaged, innovative, and committed faculty. Failing to face the strains created by salary disparities between The University of Montana and its peer institutions threatens these important gains. It is the unanimous agreement of the Committee that the recommended investment strategy proposed in this report will save financial resources over the long term and sustain the academic quality of The University of Montana.

**APPENDIX ONE: Committee Membership, Special Joint Committee on
Inversion, Compression, and Salary Floors**

James Burchfield, Chair
Associate Dean, College of Forestry and Conservation

Douglas Coffin
Associate Professor, Pharmaceutical Sciences

Roberta Evans
Dean, School of Education

Michael Harrington
Associate Dean, School of Business

James Hirstein
Professor, Mathematical Sciences

Bill Muse
Associate Vice President of Planning, Budget, and Analysis

Kay Unger
Professor, Economics

Betsy Hawkins, Special Advisor to the Committee
Director, Human Resources

APPENDIX TWO: Estimate of Cost to Raise Certain Faculty to 90% of Average Salary of Peer Institutions

Status in FY 2007	<u>Montana</u>	<u>Montana</u>	<u>Others</u>	<u>Others</u>	<u>UM as % of</u>
	N	2007 Average Salary	N	2007 Average Salary	<u>Others</u>
Professor	193	\$73,886	5,936	\$91,852	80.4%
Associate Professor	135	\$57,558	5,283	\$67,633	85.1%
Assistant Professor	131	\$52,704	4,872	\$58,548	90.0%

Target	<u>The University of Montana</u>		<u>Comparison Group</u>		UM as a % of Comparison Group
	<u>N</u>	<u>Target</u>	<u>N</u>	<u>2007 Average Salary</u>	
Professor	193	\$82,667	5,936	\$91,852	90.0%
Associate Professor	135	\$60,870	5,283	\$67,633	90.0%
Assistant Professor	131	\$52,704	4,872	\$58,548	90.0%
Estimate of Cost					
<i>Total Cost - FY 2007</i>					
Professors		\$14,259,998			
Assoc Professors		7,770,330			
	Total	\$22,030,328			
<i>Total Cost - Target</i>					
Professors		\$15,954,692			
Assoc Professors		8,217,410			
	Total	\$24,172,102			
<i>Base Increase Required</i>		\$2,141,774			
<i>Estimated Average Increase</i>					
Professor		\$8,781			
Associate Professor		\$3,312			