

# **A Statistical Investigation of Equity in Salaries of Staff at the University of Vermont**

Murray K. Clayton, Ph.D.  
Professor of Statistics and of Plant Pathology  
University of Wisconsin-Madison

February 15, 2016

## **Executive Summary**

In Summer 2013, at the request of President Thomas Sullivan and under the direction of Vice President for Human Resources, Diversity, and Multicultural Affairs Wanda Heading-Grant, the University of Vermont engaged a statistical consultant to conduct an analysis of faculty and staff salaries at UVM, focusing specifically on investigating whether there is statistical evidence of a gap in salary associated with gender or with minority status. Results of the work regarding faculty salaries were delivered in Spring 2014; findings with respect to staff salaries are detailed in this report.

Multiple linear regression was used to determine whether there was evidence of a gap in salary due to gender or minority status after various adjustment factors considered to influence salary were taken into account (such as years of employment at the university). The data used for analyses were those effective November 2014 and included all staff with the exception of academic administrators and officers of administration. In addition, 74 staff members were excluded because their personnel records did not indicate minority status.

Because of the large number of staff included in the analysis (2144) it was possible to conduct separate statistical analyses for each Job Family. This allows for determining whether any salary gaps arise primarily within a subset of units, or whether they are uniform across the campus. Of the eight Job Families on the UVM campus, these analyses indicated substantial negative gaps for gender and for minority status only for the Professional and Skilled Crafts families, and for underrepresented minorities in the Technical family.

Absent performance data, these results are based on the reasonable assumption that male and female staff are equally meritorious overall; and likewise for minority and nonminority staff. Also, without performance or other personnel data, these methods and results have little to say about the appropriateness of the salary of any given individual. Further, because the numbers of individuals within specific System Title categories are typically small, these methods cannot be used to reliably assess salary gaps within those units. Accordingly, the report discusses alternative methods for administrators to use in assessing individual situations.