Executive Summary

In 2014, East Carolina University retained Sparlin Law Office, PLLC to conduct a faculty salary equity study. The purpose of the study was to search, on a comprehensive, institution-wide basis, for any evidence of systematic gender or race disparities in the compensation paid to university faculty. Direction regarding the study was provided by the Faculty Salary Equity Task Force, which represented faculty and staff from various departments and organizations across the campus. The University supplied the database for analysis, which included pertinent information for all full-time instructional faculty members who were employed for nine or more months during the 2014-2015 academic year.

The current report is the second of two documents setting forth results from the final analysis. The first report, dated December 1, 2015, presented a comprehensive set of results for Academic Affairs. This report completes the project by documenting analyses for the various colleges employing Health Sciences faculty. The Academic Affairs and Health Sciences compensation reviews were separated due to substantial differences between the two divisions, all of which have significant implications for the analytical methodology. The final Health Sciences analysis consisted of separate compensation reviews for six faculty groups with a total population of 608. These groups (and number of faculty in each) were: Brody School of Medicine clinical (295), Brody School of Medicine basic sciences (86), College of Allied Health (71), School of Dental Medicine (37), College of Nursing (78), and Libraries (41, Laupus and Joyner, combined to obtain sufficient numbers of faculty for robust analysis).

As noted in the earlier report for Academic Affairs, multiple regression was selected as the most widely accepted and proper methodology for conducting an in-depth compensation review and was accordingly applied in all six sets of analyses. A multiple regression analysis examines the extent to which a dependent variable, in this instance compensation, is related to a series of independent variables. The specific compensation measure chosen as the dependent variable was base salary (adjusted to twelve-month equivalent when appropriate) for Allied Health, Nursing, and Library faculty. For Brody clinical, Brody basic science, and Dental School faculty, the dependent variable used for analysis consisted of base salary plus reported stipend amount for each faculty member. For all faculty groups, the dependent variable was analyzed through a series of regression models designed to test for evidence of bias affecting female faculty, minority faculty in general, and faculty members of specific race/ethnicities (when sufficient number of minority faculty made these analyses possible), after controlling for other (independent) variables that might appropriately affect individual salaries.

Independent variables other than gender and race/ethnicity varied by faculty group within Health Sciences and are listed below:
• Brody clinical faculty: Association of American Medical Colleges (AAMC) salary benchmarks, area of responsibility compensated by a stipend, clinical RVUs (Relative Value Units, a measure of productivity), whether a faculty member held responsibilities as a midwife, and experience (time between terminal degree and hire and time since hire)
• Brody basic sciences faculty: Association of American Medical Colleges (AAMC) salary benchmarks, area of responsibility compensated by a stipend, tenure, and experience (time between terminal degree and hire and time since hire)
• Allied Health faculty: Association of Schools of Allied Health Professional (ASAHP) salary benchmarks, tenure, and experience (time between terminal degree and hire and time since hire)
• Nursing faculty: American Association of Colleges of Nursing salary benchmarks, tenure, and experience (time between terminal degree and hire and time since hire)
• Dental School faculty: American Dental Education Associate salary benchmarks, area of responsibility compensated by a stipend, and experience (time between terminal degree and hire and time since hire)
• Library faculty: Academic rank, administrative responsibilities (assistant director or head of service), tenure, and experience (time between terminal degree and hire and time since hire)

After controlling for each of the independent variables, the regression modeling did not reveal any systematic patterns of differences between the pay of male and female, or between minority and non-minority, faculty for Brody clinical, Brody basic science, Nursing, Dental School, or Library faculty. The differences that do exist in average salary between male and female faculty, and between faculty of different races, in these Health Sciences units were within the range that could arise by random chance. The regression modeling for Allied Health did not produce any evidence of gender bias in faculty pay. The race/ethnicity analysis, on the other hand, showed that minority Allied Health faculty members tend to receive higher base salaries than non-minority faculty, after taking into account benchmark salary, tenure, and experience. The level of difference observed in the analysis is marginally significant, and, accordingly, may merit further individualized review.

An additional series of regression models were prepared for each of three individual racial/ethnic groups of clinical faculty within Brody School of Medicine: Asian, Black/African American, and Hispanic faculty. These analyses did not raise significant pay equity concerns unique to faculty members in these groups. For Brody basic science faculty, a separate series of regression models were prepared for two individual race groups: Asian and Black/African American faculty. The analyses did not raise significant pay equity concerns unique to these groups. There were too few Hispanic basic sciences faculty members in Brody to conduct an analysis for that ethnic group. Additionally, there were insufficient numbers of Asian, Black/African American, and Hispanic faculty within Allied Health, Nursing, the Dental School, and the Libraries to support robust regression modeling.

Despite generally favorable outcomes, this study should not be taken as evidence that further attention to the subject of faculty compensation is unnecessary. Regression analyses for the current study did not account for factors associated with the underlying processes by which qualifications such as tenure or higher academic rank (promotion) are obtained or for factors
associated with faculty support (e.g., technical help, space, start-up funds, or training opportunities). Although such issues were outside the scope of this study, they have obvious implications for each faculty member’s opportunities to earn a higher income. Additionally, overall patterns do not always replicate themselves in individual cases.

As a follow-up to the regression analyses, an outlier analysis was conducted to provide a basis for closer examination of specific cases in each of the examined units within Health Sciences. In an outlier analysis, a residual (the difference between an individual’s actual salary and his/her salary as predicted by the regression model) is calculated for each faculty member. A positive residual indicates that the faculty member is paid more than expected given the factors considered in the model, while a negative value denotes a salary that was less than predicted. For ease of comparison, differences between actual and predicted salaries also can be expressed as standardized residuals, which essentially represent a conversion of the differences into standard deviations. Members of the Faculty Salary Equity Task Force recommended further review of all cases in which current pay levels are at least one standard deviation below model predictions. The number (and percentage) of Health Sciences faculty members whose salaries meet this criterion are as follows:

- Brody clinical faculty, 34 (11.5%)
- Brody basic science faculty, 8 (9.3%)
- Allied Health faculty, 11 (15.5%)
- Nursing faculty, 14 (17.9%)
- Dental School faculty (5 (13.5%)
- Library faculty, 5 (11.6%)

Because modeling results indicate that salary compression has been a substantial factor in determining the actual compensation of some faculty members within Health Sciences, an alternative set of outlier analyses was prepared in which years since hire was removed as a control variable. An additional 13 Health Sciences faculty members (6 Brody clinical, 3 Brody basic science, 2 Allied Health, and 2 Library) were added to cases to be reviewed on an individual basis as a result of these analyses. The fact that an individual is included in this review does not necessarily mean that this faculty member is underpaid. Other considerations not accounted for in the analysis, such as workload or individual performance may justify the base pay level that has been established. By applying further scrutiny to each of these cases, however, the University will be taking important steps toward satisfaction of its overall objectives of fairness and equity.

Full reports describing the analyses of compensation equity by gender and race/ethnicity for both Academic Affairs and Health Sciences Divisions at East Carolina University are available on the Office of Equity and Diversity’s website: [http://www.ecu.edu/salaryequitystudy/](http://www.ecu.edu/salaryequitystudy/).