799 F.Supp. 1370 United States District Court, E.D. New York.

AMERICAN FEDERATION OF STATE, COUNTY AND MUNICIPAL EMPLOYEES, AFL—CIO, (AFSCME); the Civil Service Employees Association, Inc., Region I/Local 1000, (CSEA); Rita Wallace, Rachel Braver, Dorothy Garage, Linda Kelly, and Lois Whitely on behalf of themselves and all others similarly situated, Plaintiffs,

V.

COUNTY OF NASSAU; its County Executive; the Comptroller; the Members of the County Board of Supervisors; and the Members of the Civil Service Commission, Defendants.

No. CV-84-1730. | Aug. 24, 1992.

Synopsis

Female employees of county filed class action, claiming violations of Title VII and the Equal Pay Act in connection with salary differentials. After a bench trial, the District Court, Glasser, J., held that: (1) the female employees failed to establish the discriminatory motive element of a disparate treatment claim; communications workers and clerical workers failed to establish a violation of the Equal Pay Act; and (3) female police detention aides demonstrated that they performed substantially equal work as that performed by male turnkeys and, thus, established an Equal Pay Act and a Title VII violation in their rates of pay.

Judgment accordingly.

Attorneys and Law Firms

*1372 Paul Smith and Joel I. Klein, Onek, Klein & Farr, Washington, D.C., for plaintiffs.

William H. Pauley, III, Snitow & Pauley, New York City, for defendants.

MEMORANDUM AND ORDER

GLASSER, District Judge:

This class action was brought pursuant to Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e et seq., and to the Equal Pay Act of 1963, 29 U.S.C. § 206(d). This court has jurisdiction pursuant to 42 U.S.C. § 2000e-5(f)(3), 29 U.S.C. § 216(b), and 28 U.S.C. §§ 1331 and 1343(3), (4). The named plaintiffs are: the American Federation of State, County and Municipal Employees. AFL-CIO, (AFSCME), an international labor union; the Civil Service Employees Association Inc., Region I/Local 1000, (CSEA), a regional affiliate of AFSCME which represents approximately 13,800 employees of the County of Nassau; and several female employees of the County of Nassau. These plaintiffs represent a class comprised of all women employed at any time since July 28, 1982 in a Nassau County civil service job title with respect to which at least 70% of the incumbents have been female. The defendants are the New York State County of Nassau, the Nassau County Executive, the Nassau County Comptroller, the members of the Nassau County Board of Supervisors, and the members of the Nassau County Civil Service Commission.

As filed, the first amended complaint alleged violations of Title VII and of the Equal Pay Act by the County as to its compensation system; more specifically, the unions and the individual plaintiffs alleged that the County "discriminates in compensation on the basis of sex by paying historically female job classifications less than historically male classifications which require an equivalent or lesser composite of skill, effort, responsibility and working conditions." Amended Complaint ¶ 3(D). These allegations were advanced on behalf of a class "of all employees, male and female, employed within the applicable limitations period by the County of Nassau in historically female sex-segregated job classifications in the classified service." Id. ¶ 3(B). defined "historically The complaint female sex-segregated iob classifications" "classifications in an occupational group or job family for which the entry level classification is or ever has been 70% or more female." *Id.* Further, the individual plaintiffs alleged specific violations of Title VII and of the Equal Pay Act. Id. ¶¶ 10-19. The amended complaint sought injunctive relief, back pay, liquidated damages, costs, and attorney's fees. Id. ¶ 24.

*1373 On motion of the defendants, this court on May 17, 1985 dismissed the Equal Pay Act claims of former plaintiffs Stephen Goldberg and Fred Jordan as well as the Equal Pay Act claim of plaintiff Lois Whitely; the court also dismissed the Title VII claims of all plaintiffs insofar as they sought relief under a disparate impact theory. AFSCME v. County of Nassau, 609 F.Supp. 695 (E.D.N.Y.1985). On July 13, 1987, this court dismissed the Title VII claims of all the male plaintiffs. The court also certified at that time a class comprised of all female employees of the County of Nassau who, since July 28. 1982, have worked in Nassau County civil service jobs that have ever had at least 70% female employees. The court designated the named individual plaintiffs and the two union plaintiffs to represent the class. The certification did not apply to the Equal Pay Act claims. AFSCME v. County of Nassau, 664 F.Supp. 64 (E.D.N.Y.1987). Subsequently, named plaintiff Odessa Colvin dismissed her Title VII claims with prejudice, and named plaintiffs Laurie Gillibertie and Erna Fluhr were removed by stipulation.

The parties stipulated to bifurcate the trial for this action; the liability segment began on November 27, 1989 and concluded with final arguments on May 11, 1990. For the reasons indicated below in the findings of fact and conclusions of law made pursuant to Federal Rule of Civil Procedure 52(a), this court holds that the plaintiffs have failed to prove violations of Title VII or of the Equal Pay Act by a preponderance of the evidence as to all claims except the Title VII claims of the class members employed as police detention aides. Accordingly, judgment shall be entered for the defendants on all other claims.

FINDINGS OF FACT

I. The Nassau County Compensation System

In order to consider the plaintiffs' claims of sex discrimination by the County of Nassau, it is necessary first to provide a coherent view of the system under which Nassau County classifies jobs, determines salaries, and incorporates changes into its compensation system. Accordingly, these findings of fact must begin with an overview of the present structure of the Nassau County compensation system; further, it is necessary to review the process by which the present system was created as well as the manner in which it has been modified since its

inception.

One significant terminological observation must be made at the outset: The parties and the witnesses at trial employed the terms "female-dominated" to refer to job titles for which 70% or more of the incumbents are women, "male-dominated" to refer to job titles for which 70% or more of the incumbents are men, and "mixed" to refer to job titles that are neither female-dominated nor male-dominated. Although counsel at times introduced confusion as to whether or not they were observing rigorous distinctions in their phraseology (see, e.g., Plaintiffs' Post-Trial Brief at 1: counsel appear to equate the term "female-dominated" with "predominantly female") the court will, for the sake of clarity, use the terms "female-dominated", "male-dominated", and "mixed" only as defined above. As used by the court, the terms "female-dominated" and "predominantly female" are not equated; as used by counsel, the possibility of equivalence between such phrases as "predominantly female" and "female-dominated" must be discerned from context.

A. Overview: The Present Structure

Nassau County, New York, employs over 19,000 people in approximately 1,500 job titles. As with all local governments in the State of New York, employment by the County is regulated through the New York State Civil Service Law. The Civil Service System—administered by the Nassau County Civil Service Commission—divides county employees into "classified" and "unclassified" service. Tr. 1231. "Unclassified" positions are those of elected officials, department heads, and board members. "Classified" positions—the vast majority of County jobs—are subdivided into an "exempt" class, a "competitive" class, a *1374 "non-competitive" class, and a "labor" class. Tr. 1231. The "exempt" class is generally comprised of deputy commissioners and of certain professionals. The "labor" class is that for which no training or experience requirements are established. The "non-competitive" class is that for which training and experience requirements are established but for which examinations are impracticable. Tr. 1231-32. Positions in non-competitive jobs are filled by discretionary hiring at individual County departments—subject to confirmation by the Civil Service Commission that the hired applicant satisfies the training and experience requirements for the particular position. Tr. 1257–58. Finally, "competitive" class (in which the greatest number of Nassau County jobs are found) is that for which competitive examinations are required by the New York

State Civil Service Law. Tr. 1230–33. The Civil Service Commission posts and distributes notices of forthcoming examinations. Tr. 1254; see, e.g., DX UUU–4. Pursuant to state law, open positions in a competitive job must be filled from an "eligibility list" of applicants compiled and ranked on the basis of examination results. Tr. 1233. Candidates on the list must be selected in a modified rank order; that is, any open position must be offered to one of the top three eligible applicants. Tr. 1249. This is known commonly as the "one-in-three" rule. Tr. 1249.

The salaries of Nassau County employees are determined by job titles and by seniority. All job titles other than those of police personnel and of college faculties—and other than those which are either unclassified or exempt—are assigned to one of 27 salary "grades." PX 672. The minimum and maximum salaries for a particular grade are identical for all job titles at that grade. Further, an employee within a job title progresses through regular salary "steps" in a given grade; progression from one step to another is grounded on seniority. Tr. 1311-12. However, the number of steps through which a particular employee moves in the grade for her job title is not the same for all employees; rather, it is dependent on the first date of the employee's tenure with the County. Employees who were hired on or before June 30, 1967 move through seven steps for their grades ("Plan A"); employees who were hired after June 30, 1967 but on or before December 31, 1976 also move through seven steps for their grades ("Plan B"); and employees who were hired on or after January 1, 1977 have 15 steps for their grades ("Plan C"). DX ZZZ-2; Tr. 1311-12.

Compensation at each grade and step has increased through the years pursuant to "across-the-board" pay increases negotiated in collective bargaining agreements between the County and the plaintiff CSEA (which represents most of the employees whose jobs fall within this salary grade system, Tr. 1301). Tr. 1310-11. Also, individual job titles are at times "upgraded" either through the collective bargaining process or through actions taken by the Nassau County Board of Supervisors on the recommendation of the Civil Service Commission. The Nassau County Civil Service Commission has primary responsibility for evaluating proposed job titles and for reevaluating job titles or salary grades that are sought to be modified. The Civil Service Commission may recommend such additions or changes, but final authority to create a new title or to change the title or the grade of an existing job rests with the Nassau County Board of Supervisors. However, without a recommendation from the Civil Service Commission, a proposed modification is, for all practical purposes, formally rejected.

B. The 1967 Cresap Process

The present compensation system of Nassau County is a direct descendant of a comprehensive job and salary evaluation process conducted on behalf of the County between 1964 and 1967 by the management consulting firm of Cresap, McCormick and Paget ("Cresap"). The objectives of the Cresap process were to provide a rational classification of County job titles and to establish equitable and competitive salaries. See PX 621 at I-1 (final report of Cresap to Nassau County, dated June 1966 and entitled: "Nassau County—A Proposed Salary Plan"); see PX 1104 at 2 *1375 (preliminary report of Cresap to Nassau County, dated September 1964 and entitled: "Nassau County: Salary Plan for County Employment"). Cresap determined the parameters and the methodology of the study, trained a team of four Nassau County employees to conduct the study, and exercised regular supervision over the project. PX 621, passim.

The job evaluation process began with the distribution of questionnaires to several thousand County employees. PX 621 at II-1; Tr. 295. The County team of four and the Cresap professionals then set out to create a taxonomy of County job titles and of job characteristics. PX 621 at II-1 to II-2; Tr. 298. To supplement the information provided through the questionnaires, the team members and the consultants conducted approximately 1,500 "desk audits"; these audits entailed interviews with employees, observation of their duties, and consultation with their supervisors. PX 621 at II-2; Tr. 362-66; but see Tr. 305. After all such information was gathered, the County team and the Cresap personnel together sorted jobs into occupational categories. Then, different jobs within occupational categories were distinguished demarcated by hierarchical job titles. PX 621 at II-2; Tr. 307. Thus, for example, the Cresap process ultimately proposed the related job titles of Probation Officer Trainee, Probation Officer I, Probation Officer II, Probation Officer Supervisor I, Probation Officer Supervisor II, Probation Officer Supervisor III, Deputy Director of Probation, and Director of Probation. PX 621. The County team set out approximately 650 such job titles or "job classes." Tr. 307.

Next, the County team was trained by Cresap to write job descriptions or job specifications for each of the titles so created. PX 621 at II–3; Tr. 308 and 310; see PX 620 (instruction guide prepared by Cresap for Nassau County team, dated July 1965 and entitled: "Nassau County Class Specification Writers' Manual"). These job specifications were intended to set forth the essential characteristics of each title. PX 621; PX 620. The format developed by

Cresap for the job descriptions required the following information: (1) a general statement of the duties of the job title; (2) a statement of the complexity of the duties of the job; (3) a statement of the typical duties of the job; and (4) a statement of the qualifications—specifically, the knowledge, skills, abilities, and experience—necessary for the job title. PX 620 at 6–8. The job specifications were not intended to be exhaustive descriptions of each aspect of the job; rather, the specifications were to set out the salient features of the particular title and to distinguish that job from other positions. PX 620; Tr. 309 and 1245. The job descriptions so drafted by the County team were reviewed and re-written both by the team members and by the Cresap professional staff. Tr. 308, 316, and 1452.

After the job specifications were completed, all Nassau County employees were notified of the proposed job titles and job descriptions. PX 621 at II–4; Tr. 366–67. At that time, neither salaries nor salary grades had been assigned to these job titles; nonetheless, the employees were permitted to appeal the classifications of their jobs to an independent classification appeals board. PX 621 at II–4 to II–5; Tr. 367–68. The decisions of this appellate board were binding on the County. Tr. 367–68. Over one thousand employees ultimately sought such review of the job reclassifications. PX 621 at II–4.

The Cresap process also entailed the assignment of job titles to salary grades. Toward this end, the County team evaluated the final job specifications on the bases of four factors: (1) the knowledge and the skills required by the job; (2) the complexity and the variety of the duties of the job; (3) the responsibility for independent action; and (4) the responsibility for supervision. PX 619 at 4 (instruction guide prepared by Cresap for Nassau County team, undated and entitled: "Nassau County: Job Evaluation Handbook"); PX 621 at III–2 to III–3. Each member of the County team rated designated jobs on each of these four factors. Again, the results of this process were reviewed and revised by the entire team and by the consultants from Cresap. Tr. 331; Tr. 333.

*1376 The numerical values assigned to these four factors for each job title were then weighted and totaled. PX 621 at III—3 to III—4. Although the final report submitted by Cresap to the County does not identify any factor other than these four on which grades were assigned to job titles, it is clear that the County team and the Cresap personnel did consider other criteria in grading particular jobs. Tr. 319—25, 1462. For example, the ultimate point scores for each title were revised in part on the basis of information gathered by the individual team members during the desk audit phase of the classification process. Tr. 322—23. Ultimately, ranges of total scores were organized to correspond to 27 salary grades set out by

Cresap. PX 621 at III–4 to III–5. Thus, for example, if the total evaluation points of a particular title fell within the range of 336 to 370 points, that job was given a salary grade of nine; if the total points of a particular title fell within the range of 371 to 405 points, that job was given a salary grade of ten. PX 621 at III–4.

Cresap also conducted a labor market survey as an aid to the salary determination aspect of the job evaluation process. Cresap collected salary data on 63 separate "benchmark" job classes from such public employers as the City of New York, Suffolk County, Westchester County, the State of New York, and the United States Government as well as from employers in private industry. PX 621 at IV-1 to IV-4; see also DX LLL-1. This labor market data was used primarily to develop "salary trend lines" by which to compare the salaries of Nassau County jobs with the market rates for similar positions. PX 621 at IV-5 to IV-6. Although the salary survey was conducted at the same time as the grading process, Tr. 1612, the final report submitted to the County by Cresap does not indicate that the labor market salary data were ever used by Cresap as a basis on which to adjust the proposed grade of any particular job title. See Tr. 1609–10. Rather, the data formed the basis for general comparisons of the salaries paid by Nassau County for job evaluation point ranges. Thus, for example, a salary trend line drafted by Cresap indicates that the salary for Nassau County jobs with an evaluation point total of 250 compares favorably to the salaries offered by Suffolk County and by Westchester County for similar jobs; but the report does not specifically compare the salary offered by Nassau County for the particular job title of "Laborer I" with the salaries paid by those other counties for the job of "laborer." PX 621.

Nonetheless, it is clear from papers drafted by Cresap as early as 1964 that a primary objective of the reclassification and evaluation process undertaken by Cresap was to ensure that the salaries offered by the County would be competitive with those of nearby communities. PX 1104 at 2; see also Tr. 1448. It is also clear that Cresap regarded the results of its labor market survey as confirmation that the final proposed salary plan would guarantee the competitiveness of the County. Thus, Cresap concluded that "[a]t the upper range of positions, the minimum Nassau County salaries are as high as, or higher than, the salaries of all of the public jurisdictions to which the County is compared." PX 621 at IV-6. Similarly, "[a]t the middle range of positions, Nassau County salaries are higher than all but the New York City salary scale." PX 621 at IV-6. And, finally, "[a]t the lower range of positions, the Nassau County minimum salary is slightly higher than the other salaries shown." PX 621 at IV-6. These facts indicated to Cresap that

"Nassau County is in a strong competitive position, compared with other public jurisdictions and with private industry." PX 621 at IV-6.

Cresap made its final report of proposed job title classifications and of proposed salary grades to the County in June of 1966. PX 621. The proposed grades for approximately 38 job titles were not included in the body of the report but were placed in an addendum dated June 15, 1966. These job titles had not been initially proposed by Cresap, but they were created through the classification appellate process. Accordingly, Cresap assigned salary grades to these new titles and reported them to the *1377 County. PX 621 at addendum. As with the initial determination of new job classifications and job specifications, County employees were provided with an opportunity to seek review of their proposed salary grades before an independent salary review board. Tr. 368-69. Again, the determinations of this appellate board were binding on the County. Tr. 368-69. Over 1,000 employees sought such review. The final job titles and salary grades were enacted by Nassau County ordinance in May of 1967. PX 591; Tr. 369.

C. Modifications since the Cresap Process

The Cresap system has continued to be the primary framework for the classification and for the evaluation of new and existing jobs in Nassau County. At the time of this trial, the County had not replaced the basic Cresap structure, and the County has retained most of the original job classifications and salary grades adopted in 1967. Tr. 397–98. Three-quarters of present Nassau County employees work in job titles that were established by the Cresap process, and the pay grades of three-quarters of those employees have not changed since 1967. Tr. 629-30. The Executive Director of the Civil Service Commission from 1966 through the time of this trial, Adele Leonard, indicated that the Cresap process was the "seed" for the entirety of the present Nassau County job classification and compensation system. PX 1096 at 56. Indeed, there have been only three principal mechanisms by which the results of the Cresap process have been altered: (1) the creation of new job titles through the Civil Service Commission; (2) upgrades of existing job titles through the Civil Service Commission; and (3) salary increases and upgrades through the collective bargaining process.

As to the first of these, when a Nassau County department requests the creation of a new classified position, the Civil Service Commission first reviews the request to ensure

that the proposed title is not duplicative of an existing job. Tr. 1241–43. If tentative approval of the proposal is forthcoming, the Civil Service Commission establishes the new title and drafts a job specification; such specifications are intended to correspond in form and in function to those specifications originally drafted during the Cresap process. Information for the specifications is gathered from the requesting department, from other departments, and, at times, through a job audit that is similar to the desk audits of the Cresap process. Tr. 1243-45. The Civil Service Commission must formally adopt the new title specification. Tr. 1243-45. The Civil Service Commission recommends the new title to the County Executive; the County Executive then refers the title to the Nassau County Board of Supervisors. Final approval for the creation of a new title is granted by the Board of Supervisors through enactment as ordinance. Tr. 1259.

However, Civil Service Commission personnel specialists who began working for the County after the Cresap process have not received the training in job evaluation and grading that was given to the Nassau County team at the time of Cresap; accordingly, the specifications of new titles are not assessed on the four-factor system used by Cresap and by the Nassau County team in the 1960s. Tr. 388-89. Rather, salary grades for new titles are fixed by comparing the job specifications to those of existing County jobs. Tr. 389-90, 393, and 1282-84; see also PX 1096 at 10-13. In order to facilitate this assessment and comparison process, the Civil Service Commission personnel specialists have developed informal "rules of thumb"; thus, for example, a new position that requires a baccalaureate degree is typically—although invariably—assigned a salary grade of ten. Tr. 391-92. These "rules of thumb" were developed by inferences from salary grades that were originally assigned through the Cresap process. Tr. 393. In evaluating new positions, the Civil Service Commission personnel specialists consider training and experience to be among the most significant factors. Tr. 1282; but see PX 1096 at 11. However, other criteria considered by the personnel specialists include recruitment difficulties, the working conditions for the new position, and the market rate *1378 for similar jobs. PX 1096 at 13-15, 57; Tr. 1246-1247. Again, the Board of Supervisors must enact by ordinance a proposed salary grade for a new job title. Tr. 402 and 1259.

As to formal upgrades through the Civil Service Commission, either an employee or the department in which that employee works may seek an upgrade of the employee's job title. DX UUU-1; Tr. 1259. Often, upgrades are sought because the duties of a particular title have changed over the years or because an employee is

performing "out of title work"—that is, work beyond the scope contemplated by the specification for that title. Tr. 1261. The upgrade request—whether made by employee or by department—is reviewed by the Civil Service Commission; additional information concerning the job title may be sought by Civil Service Commission personnel specialists from the department heads. Tr. 1263 and 1285. Not infrequently, Nassau County departments act as the primary advocates of their employees' desire for upgrades. Tr. 1264 and 1271.

The Civil Service Commission considers two principal factors in assessing upgrade requests: (1) significant changes in the duties of a job title; and (2) significant problems in recruitment or retention of employees in a job title. Tr. 403 and 1264-65. However, the Civil Service Commission also considers such factors as the working conditions of a title as criteria for upgrades. PX 1096 at 9. With respect to the retention-and-recruitment factor, the personnel specialists at the Civil Service Commission regularly undertake market surveys in order to determine whether salaries offered by the County are competitive with those of nearby communities. PX 1096 at 13-15; DX ZZZ-4 at 27. In some instances, the Civil Service Commission will seek to address recruitment or retention problems through means less extensive than an upgrade. For instance, the Civil Service Commission may authorize a department to hire new employees at a higher salary step than that at which new employees typically begin ("above-step hiring"), Tr. 1268 and PX 1096 at 60; or the Civil Service Commission may authorize promotions of employees in one title to a higher related title. Tr. 1271.

Finally, the Cresap system set in place in 1967 has also been modified through the vehicle of collective bargaining. Since 1969, the County and CSEA have entered into nine separate collective bargaining agreements. Tr. 1319. These agreements have at times provided for "across-the-board" wage increases; at times they have provided for higher wages for particular groups of employees. Tr. 1327–28; DX ZZZ–2 at 11. The County and CSEA have also entered into memoranda of understanding that secured upgrades for particular job titles. Tr. 1318 and 1320-23. Throughout these negotiations, both the County and CSEA have relied extensively on labor market surveys. Tr. 1314–17, 1377, and 1389. Both AFSCME and the County conduct comprehensive labor market surveys in order to present persuasive arguments at the bargaining table that particular salary increases or upgrades should or should not be granted. Tr. 1377–79.

II. Evidence of Discrimination by Nassau County

With these findings as background, the court may now turn to its findings of fact on the ultimate issue in this case: whether or not the County of Nassau has intentionally discriminated against women in female-dominated jobs with respect to compensation. Although the plaintiffs pursued several theories at trial, they ultimately determined that their "primary claim in this case is that the defendants engaged in intentional discrimination by systematically giving to predominantly female job titles lower salary grades than they would have received if they were not female-dominated." Plaintiffs' Post-Trial Brief at 1. That is, the plaintiffs argue that, during the Cresap job evaluation process, the "County selectively departed from [its wage-setting] methodology in a deliberate effort to favor male-dominated job titles while disfavoring the most significant female-dominated titles." Id. at 3. Further, the plaintiffs argue that, since the Cresap process, this intentional discrimination in *1379 setting salary grades has been both perpetuated by the failure of the County to redress these selective discriminatory departures as well as repeated by the County in its classification and grading of new titles. In addition to the evidence regarding discrimination in the setting of salary grades, the plaintiffs also sought to show that there are sex-related disparities between the current salaries of male-dominated job titles and of female-dominated job titles—and that those disparities are the product of intentional discrimination. Finally, other evidence presented on the question of discriminatory intent concerned such matters as sex segregation of County job titles and specific instances of discriminatory behavior. The defendants presented evidence on all these matters as well as evidence concerning Nassau County affirmative action plans and the collective bargaining process between the County and its employees. Thus, on the critical question of discriminatory intent, the court makes the following findings of fact.

A. Discrimination during the Cresap Process

The plaintiffs presented no direct evidence of intentional discrimination against women in female-dominated Nassau County jobs during the Cresap process. Rather, every witness who had participated in that job classification and evaluation project credibly denied that any decision or determination was made during the Cresap process on the basis of the sex of Nassau County employees. See, e.g., Tr. 348, 377, 435, 1455, and 1464. Every witness associated with the Cresap process denied that they even had data as to the number of women in any particular job title. See, e.g., Tr. 377, 1455, and 1610.

Confronted with such testimony as to the absence of any intentional discrimination by the Nassau County personnel team or by the Cresap personnel, the plaintiffs sought to prove their allegations indirectly.

1. The "Graduate Student" Study

The first element of evidence presented by the plaintiffs as to discrimination by the County in the conduct of the Cresap process was a study conducted by one of the plaintiffs' expert witnesses, Dr. Donald J. Treiman. Dr. Treiman, a sociologist from the University of California at Los Angeles, undertook "to determine whether Nassau County had applied its own job evaluation system in a consistent way." PX 1074 at 14 (report of Dr. Treiman to plaintiffs, dated September 1989 and entitled: "Job Classification and Salary Setting in Nassau County, N.Y. 1966–1986"); see also Tr. 583. His objective was to simulate the second half of the Cresap process with unbiased evaluators of job specifications.

Dr. Treiman hired five graduate students to rate Nassau County job specifications on the bases of the four factors used during the Cresap process, Tr. 589; through this exercise, Dr. Treiman sought to replicate the Nassau County job evaluation process. Because his aim was to achieve "unbiased" ratings, he gave the graduate students no information as to the Nassau County personnel system, no information as to the sex composition of the jobs that they were to score, and no information as to the existence and nature of this action. PX 1074 at 14; see also Tr. 590. Dr. Treiman reported that the results of this rating exercise by the graduate students were "unambiguous." PX 1074 at 16. More specifically, Dr. Treiman found that:

When ratings of 297 Nassau County jobs evaluated by three raters working independently are summed and averaged, and the resulting point scores plus whether the job is female-dominated are used to predict the salary grade assigned by Nassau County, it emerges that employees female-dominated jobs are, on average 2.4 salary grades lower than employees in other jobs with evaluated worth same according to the criteria used in Nassau County.

PX 1074 at 16 (emphasis in original); see also Tr. 584-85 and 591. In other words, Dr. Treiman found that the Cresap process had created a two-and-one-half grade disparity between female-dominated iobs male-dominated jobs that were otherwise equivalent under the evaluation criteria used in the Cresap process. Dr. Treiman testified that he checked these results for *1380 consistency among his students, Tr. 591, and he testified that he regarded this study as a "neutral measurement" against which to assess the results of the Cresap job evaluation process. Ultimately, Dr. Treiman concluded that this graduate student exercise demonstrates that "C[resap] and Nassau County applied the C [resap] criteria in a way that systematically discriminated against jobs performed mainly by women" and that "the job evaluation scores [used by Cresap and by the County during the Cresap process] were systematically manipulated to achieve a pay hierarchy that corresponded closely to the pre-C[resap] hierarchy." PX 1074 at 16. Dr. Treiman concluded that the Nassau County team and the Cresap personnel had not applied the job evaluative criteria in a "good faith" manner. PX 1074 at 4.

However, the court is unable to credit the testimony and the report of Dr. Treiman as to the conclusions of this study. First, the court found Dr. Treiman himself to be extremely evasive and not entirely credible throughout much of his testimony. See, e.g., Tr. 643–46 and 787–89. Second, Dr. Treiman in a subsequent report recanted part of his conclusions from this "unambiguous" evidence, see PX 1075 at 1. Further, the court found his methodology in the conduct of this graduate student exercise to be so flawed as to render it unreliable and of no probative value in this case.

Dr. Treiman hired five graduate students about whom he knew virtually nothing to perform this exercise. Tr. 758. After he discharged two of the students from the exercise (because he determined that they were not capable of satisfactory execution of the project), Dr. Treiman was left with only three raters for the study—two of whom were in the first semester of their first year of graduate studies. Tr. 758. Dr. Treiman gave the graduate students minimal guidance in the exercise. Tr. 771–72.

More significantly, although Dr. Treiman instructed the students to rate each of 325 job specifications on the four factors used in the Cresap process, he did not give the students any information as to the number of employees supervised by the incumbents of these job titles. Tr. 768–69. Dr. Treiman told these students to do the "best that they could" without that information—information that Dr. Treiman himself conceded was essential to scoring the "supervisory responsibility" factor. Tr. 769.

Thus, Dr. Treiman's graduate students—his standard assessors against which the results of the Cresap process could be measured—were directed to improvise at least one-fourth of the data they needed for the project.

Next, Dr. Treiman instructed his students to spend no more than 50 to 60 hours on the evaluations. Tr. 761. The court cannot conceive that 50 to 60 hours devoted to this project could adequately replicate the efforts of the participants in the Cresap process who spent months evaluating these jobs. See, e.g., Tr. 333. Indeed, it became clear at trial that the time allotted by Dr. Treiman was terribly inadequate for any but the most hurried completion of this project. Tr. 762–67. Finally, in contrast to the procedure used in the Cresap process through which differences in point ratings among members of the County team were discussed and resolved by consensus, Dr. Treiman simply "averaged out" the different point ratings assigned by his graduate students. Tr. 781. Taken together, these procedural deficiencies significantly undermine the value of the graduate student exercise as a simulation of the original Cresap process.

The results of this exercise confirm that—far from tracking the Cresap job evaluation process—the exercise was a study in poor guidance, incomplete information, and inadequate time. The graduate students' ratings were remarkably inconsistent: For example, the graduate students assigned to the job title of Housekeeping Supervisor grades that ranged from 7 to 20. DX KKK-2. Also, two of his three students gave grades that differed on average by three grades—a disparity greater than the two-and-one-half grade difference that Dr. Treiman identified between male-dominated and female-dominated jobs in the Cresap job process. See, e.g., Tr. 1561. Again, rather than *1381 investigate these disparities among his students, he simply "averaged out" their results. Indeed, ultimately, Dr. Treiman's graduate students rated the male-dominated job title of Custodial Worker I as equal to the female-dominated job title of Clerk-Stenographer I-a result for which Dr. Treiman himself argued there was no "rational basis." Tr. 787-89. For all these reasons—because of Dr. Treiman's problematic methodology and because of his less than persuasive testimony—the court must disregard entirely the results of this graduate student exercise. It is wholly without probative value, and it does not provide any basis for inferring discriminatory intent in the execution of the Cresap classification and evaluation process.

2. The "Training and Experience" Study

The second item of evidence introduced by the plaintiffs on the question of intentional discrimination in the Cresap process was another study conducted by Dr. Treiman. In this study, Dr. Treiman sought to eliminate the subjectivity inherent in the grading exercise performed by the graduate students. Tr. 596; but see Tr. 688-89. To this end, he analyzed the job specifications prepared during the Cresap process for two "objectively measurable" factors: first, the amount of training and experience required by a particular position; second, whether or not the position entailed supervisory responsibility. Dr. Treiman testified that the first of these two factors constitutes a suitable proxy for the first three factors used by Cresap to evaluate jobs (that is, knowledge and skills, complexity of duties, and independence of action). Tr. 597-98. Thus, in conjunction with a measure for supervisory responsibility, Dr. Treiman believed he had two quantifiable variables that would permit objective evaluation of the Cresap job-evaluation process.

Dr. Treiman then analyzed Nassau County job specifications for these factors. He used data from 1967 as to the number and the sex of Nassau County employees, Tr. 598, and he weighted job titles by the number of employees in each title. PX 1074 at 10. As to training and experience alone, Dr. Treiman found that, "[o]n average ... employees in female-dominated jobs are 1.7 salary grades lower than employees in male-dominated jobs requiring the same training/experience." PX 1074 at 11; Tr. 598-99. When Dr. Treiman introduced the variable for supervisory responsibility into his study, he found that, on average, as to any given number of years for training and experience, nonfemale-dominated jobs without supervisory responsibility were better compensated than female-dominated iobs with supervisory responsibility. Tr. 606–07; PX 1074 at 14. From these comparisons, Dr. Treiman concluded that Nassau County could not have applied the Cresap job-evaluation procedures in a good faith manner. Tr. 607.

As with his graduate student exercise, however, this court again finds that Dr. Treiman's conclusions are not reliable. First, this "objective" analysis of Nassau County job specifications rests on the critical subjective judgment of Dr. Treiman that the first variable he used—the training and experience variable—was an adequate proxy for the first three Cresap factors. Dr. Treiman testified that he was confident as to the adequacy of the training and experience variable because it is "well known" to be the most important aspect in determining compensation for job titles. Tr. 596. This rationale completely ignores the fact that the two variables used by Dr. Treiman plainly account for only *half* the job evaluation factors used by Cresap; it also indicates that his study is only half

complete. Along these lines, Dr. Treiman further testified that the first three Cresap factors are "very highly correlated" and are "alternative measurements of the same thing." Tr. 597–98; see PX 1074 at 33 n. 9. He ultimately conceded, however, that this determination was entirely subjective. Tr. 695, 696.

Quite apart from the question as to the bases on which Dr. Treiman's confident assertions may rest as a general matter, it is clear that the particular "verification" of this assumption as to the adequacy of the two variables used is untrustworthy. Dr. Treiman's report indicates that the data on which he confirmed the high correlations *1382 among the first three Cresap factors and the adequacy of his proxy variable were the data produced by his graduate students in their ratings of Nassau County job specifications. PX 1074 at 33 n. 9 and at Appendix I (entitled "An Unbiased Application of the CMP Job Evaluation Criteria to Nassau County Jobs"); Tr. 695. That is, in order to confirm his critical assumptions about these variables, Dr. Treiman calculated correlations among the point scores assigned by his graduate students. The problems with this procedure are as patent as the flaws in the graduate student exercise are serious: The unreliable results generated by the graduate student evaluations are simply imported into the second study—a study intended in part to confirm the first study. Tr. 612-13. The use of the graduate-student point scores as the underpinning for the training and experience study demonstrates the untrustworthiness of that second project.

Additionally, the fact that Dr. Treiman collapsed the first three Cresap factors into one variable resulted in his ignoring entire sections of the Nassau County job specifications. Tr. 749. And Dr. Treiman also weighted job titles by the number of employees—even though the participants in the Cresap process had not done so. Tr. 742-43. The reasons stated by Dr. Treiman for this methodological move of weighting titles ("ultimately we are interested in what happens to people and not to jobs", PX 1074 at 34 n. 11) is plainly inconsistent as well with the allegations of the plaintiffs' complaint. See Amended Complaint ¶ 3(D) (alleging discrimination on the basis of sex domination of jobs). Dr. Treiman conceded that this aspect of his study could be expected to yield results different from those of the Cresap process. Tr. 743. The court is deeply troubled that Dr. Treiman so readily and so regularly departed from the stated methodology of the Cresap process in order to determine whether or not the Cresap personnel and the Nassau County team had themselves departed from that methodology. The court simply cannot give any weight to this terribly flawed study.

The court is also unable to find that Dr. Treiman's

conclusions as to the sex composition of job titles in 1967 are entirely reliable. Dr. Treiman himself had no data as to the sex composition of these job titles; rather, paralegals at the office of the plaintiffs' counsel reviewed the names of many of the incumbents of these job titles during the year 1967, and those paralegals drew inferences as to the sex of each employee from those names. Tr. 685; PX 1074 at 32 n. 6. Indeed, the court notes in this regard that every data base used by Dr. Treiman in each of the studies he prepared for the plaintiffs was created by the plaintiffs' attorneys. Tr. 680-85. As to this data base, although the drawing of inferences as to sex from an individual's name is not very significant in itself, these paralegals appear to have proceeded on the assumption that only 6,000 people were employed by Nassau County in 1967, see PX 1075 at Table 1. But, at that time, there were between 8,300 and 10,000 people employed by Nassau County. See PX 621 at II-1 and V-2; compare with Tr. 714 (Dr. Treiman testifying that the number of Nassau County employees in 1967 "was somewhere between five and ten thousand"). There is no indication in the record as to how the subset of 6,000 employees was derived by the plaintiffs—and there is no indication that those 6,000 employees are representative of the 1967 County work force as a whole. Indeed, the plaintiffs have provided precious little information as to how the sex domination of Nassau County jobs in 1967 was determined, Tr. 716-17, and that determination cannot now be adequately reviewed either by the defendants or by this court. Accordingly, to the extent that the conclusions as to the male or the female dominance of Nassau County job titles in 1967 is predicated on inferences made by agents of the plaintiffs from less than all the relevant data—and to the extent this court has been given no basis on which to find that the method for selection of those 6,000 names was a trustworthy one—the court finds that the reliability of Dr. Treiman's assumptions as to sex dominance of job titles in 1967 is somewhat limited. Ultimately, however, the reservations *1383 that this court may have as to these data are simply collateral concerns to the deep methodological flaws indicated above. It is on those grounds—coupled with the evasive and unpersuasive testimony of Dr. Treiman—that the court finds the "training and experience" study by Dr. Treiman to be of no weight.

The court must note as well, however, that the problematic aspects of Dr. Treiman's evidence are not found only in his written reports. His testimony before this court was consistently evasive—particularly when he was asked about latent (or patent) flaws in his studies. Thus, it often required extensive questioning either by counsel or by the court to secure from Dr. Treiman a candid response about whether a particular

methodological error on his part affected the results of his study. For example, after Dr. Treiman acknowledged that he had erroneously coded a job requirement of "elementary education" as six years rather than as eight years because he was drawing on his experience as "a boy in California" rather than on the actual school system in Nassau County, Tr. 700–09, Dr. Treiman was initially unwilling to admit that his mistake had skewed other aspects of his training and experience study:

THE COURT: Just let me see if I understand this for a minute. If your assumption is wrong with respect to elementary school being six when it should be eight, then the ten would be wrong, too, wouldn't it, or would it? How did you get to ten? You built in two more years of junior high and added on top of that two more years.

THE WITNESS: I am sorry, ten on page—

THE COURT: I am looking at footnote 33. You made no provision for what your experience was in California of junior high. Is that it?

THE WITNESS: Sir, that was what I was working from was the job specifications and the job specifications in Nassau County refer to elementary education. They refer to some high school. They refer to high school graduation. I made an error. It's now, obviously an error in coding elementary education as six instead of eight; but it would have no impact on the rest of the codes.

THE COURT: Okay. Well, if a person had eight years of elementary school education and two years of experience, where would you code that?

THE WITNESS: It's coded by the job. The job says elementary education and if it says elementary education plus two years of experience, I would have coded it as an eight on page ten.

THE COURT: Suppose that a person had an elementary school education and four years of experience, where would you code that?

THE WITNESS: That would be coded as ten.

THE COURT: It should be 12, right, assuming that an elementary school education should be an eight. So, it might [a]ffect some other numbers. Is that right?

THE WITNESS: Yes, that's correct.

Tr. 709–10. A colloquy such as this reveals either that Dr. Treiman is unable to appreciate and to assess the effects of the methodological defects in his study or that he is

unwilling to testify candidly about those effects. Neither possibility secures the confidence of this court in his evidence.

For their part, the defendants attempted to demonstrate through one of their expert witnesses, Dr. David P. Jones, that Dr. Treiman's study would not have indicated a sex-related disparity in 1967 salary grades had he accounted for additional factors in the Cresap process. DX GGG-1 (report of Drs. Jones and Haworth to defendants, dated November of 1989 and entitled: "Summary of Statistical Employment and Compensation Patterns by Gender in the Nassau County Government: 1980 and 1986"). Specifically, Dr. Jones undertook to demonstrate that the salary grades assigned by Cresap were affected by the local labor market and by the number of hours worked each week for particular job titles; Dr. Jones concluded that, once these two factors are taken into consideration, the sex- *1384 related disparity in job grades is statistically insignificant.

Dr. Jones repeated Dr. Treiman's "training and experience" study with several modifications. First, in order to obtain statistically significant examples, Dr. Treiman restricted his own study to those Nassau County iob titles that had 15 or more incumbents. Tr. 1583-84. That is, Dr. Jones wanted to eliminate the possibility that the sex of only two or three employees would radically alter the sex-dominance of a particular title. This restriction left Dr. Jones with 101 Nassau County job titles for his study. Tr. 1583-84. Next, Dr. Jones rated these 101 titles not only on the two factors used by Dr. Treiman but also on three factors derived from the Dictionary of Occupational Titles. Tr. 1581–82. Notably, Dr. Treiman was the staff director of the committee that developed the Dictionary of Occupational Titles. Tr. 581. These factors were used to provide Dr. Jones with a job description analysis that he expected to parallel that of Dr. Treiman. Tr. 1632-33. Dr. Jones then collected current labor market data for as many of these 101 titles as he could. Dr. Jones and his staff attempted to match Nassau County job specifications with jobs in the New York counties of Rockland, Suffolk, and Westchester as well as with jobs in New York City. Tr. 1593-96; DX GGG-4 and DX GGG-5. These procedures left Dr. Jones with 80 usable job titles. Tr. 1622-23. However, Dr. Jones used the same data as to the sex composition of Nassau County jobs in the year 1967 that Dr. Treiman had used. Tr. 1537.

Dr. Jones then conducted regression analyses without a variable for labor market data. Tr. 1625. He found that, on the bases of the variables from Dr. Treiman's "training and experience" study, there was a significant correlation between salary and sex in Nassau County jobs. Tr. 1626; DX GGG-1 at 45. Similarly, Dr. Jones found similar

results when he considered the job characteristic variables derived from the Dictionary of Occupational Titles. Tr. 1632-33; DX GGG-1 at 47. Thus, whether he used the variables derived by Dr. Treiman or the variables from the Dictionary of Occupational Titles, Dr. Jones was able to confirm the conclusion of Dr. Treiman that the sex composition of Nassau County jobs does have a high correlation to the salary grade midpoints of those positions. Tr. 1633-34. However, Dr. Jones found that when he introduced into these regression analyses an independent variable to represent the market data he had gathered, the sex composition of jobs was of virtually no statistical significance as to the original salary grade disparity. Tr. 1635-36, 1641-42; DX GGG-1 at 54; DX GGG-1 at 57. Dr. Jones achieved similar results upon the introduction of a variable to represent the number of hours worked by employees of different Nassau County job titles: Again, Dr. Jones found that a variable for the length of the work week reduced the effect of sex on salary (although not as much as did the variable for labor market data). Tr. 1647-49; DX GGG-1. Thus, Dr. Jones concluded and testified that Dr. Treiman's "training and experience" study had omitted important variables and that, once those variables are considered, Dr. Treiman's study would not suggest any relationship between sex composition and the setting of salary grades during the Cresap process. Tr. 1655; see also DX GGG-1 at 60.

Although the court found Dr. Jones' study to be procedurally sound (with certain possible exceptions such as the use of the 1967 sex-composition data), the weight that the court is able to attribute to the conclusions of Dr. Jones is significantly limited by the paucity of corroborating evidence that the County of Nassau ever considered either the labor market or the length of the work week when it determined the initial Cresap grades. First, as to length of the work week, the County adduced absolutely no evidence that the participants in the Cresap process ever considered this factor—or even had data as to it—when they established salary grades. See, e.g., Tr. 326. Next, as to the labor market data, although the Cresap team did collect market salary information on 63 "benchmark" jobs, the final Cresap report does not indicate that the market data were *1385 used to set or to modify the salary grades of particular job titles. Rather, the report indicates that the market data were used to draft broad salary "trend lines" for comparisons as to the ranges of salaries offered by Nassau County and by other communities. PX 621 at IV-4 to IV-6; Tr. 1605-06. Further, no participant in the Cresap process testified that market data were used to adjust salary grades. See, e.g., Tr. 327-29 and 1609-12. On the other hand, concern with the competitiveness of Nassau County salaries recurs in almost every segment of every report from Cresap to the County. It would not be an implausible inference that the consultants whose task it was to design a competitive salary plan might have amended salary grades for certain job titles in order to ensure such competitiveness. However, there was no evidence introduced to support this conclusion beyond the findings of the regression analyses of the defendants' expert. Accordingly, the court is unable to conclude that the Cresap team actually considered market data in setting individual salary grades.

Because there is no satisfactory support for a finding that the variables introduced by Dr. Jones actually affected the assignment of salary grades to particular job titles during the Cresap process, Dr. Jones' conclusions are only marginally relevant to the question of discriminatory intent. Nonetheless, the court will note that it specifically rejects two challenges posed by the plaintiffs to Dr. Jones' methodology. First, the plaintiffs attacked the procedures followed by Dr. Jones and by his staff to collect labor market data, see, e.g., Tr. 1718-39; however, the court found these procedures to be both reasonable and reliable. Accordingly, the court credits the results of Dr. Jones' labor market survey to the extent those results are relevant to issues in this action. Second, the plaintiffs attacked Dr. Jones' restricted sample of 101 Nassau County job titles as unrepresentative of Nassau County job titles generally. Tr. 1748. However, the court found that the decisions made by Dr. Jones as to the bases on which job titles would be eliminated from his study were sound. The court also notes that Dr. Jones was able to obtain with that sample—and with other data used Treiman—results that were similar to the results obtained by Dr. Treiman in his "training and experience" exercise. Tr. 1633-34. The plaintiffs thus stand in an awkward posture when they attack Dr. Jones' procedures.

Again, without even considering the refinements suggested by Dr. Jones' report, this court does not find that the "training and experience" analysis of Dr. Treiman provides evidence of discriminatory intent in the Cresap process. Rather, the questionable—and poorly verified—assumptions on which that study is based as well as the flawed methods with which it was executed erode completely what little confidence this court might have had in Dr. Treiman's conclusions after observing his testimony. This court credits neither Dr. Treiman's testimony nor the results of his "training and experience" analysis.

3. Plaintiffs' Exhibit 616/616-A

The next item of evidence introduced by the plaintiffs to demonstrate discrimination in the execution of the Cresap

process was plaintiffs' Exhibit 616-A. This exhibit is a color photocopy of a thirty-three page document retrieved from the files of the Nassau County Civil Service Commission. See PX 1082 (stipulation of counsel that Exhibit 616-A was found in a Nassau County file folder "CMP—Point Evaluation to Determine Grades"); but see PX 1096 at 48-49 (exhibit retrieved from "junk" files). Exhibit 616-A contains job titles typewritten on the left side of each page; these job titles are grouped under general headings, and they are alphabetically arranged within each grouping. Next to these job titles are five columns that are headed (at least on page one of the exhibit): "K-S", "C-V", "IA", "S", and "T". Numerical values that correspond to job titles are handwritten in the columns under these headings. However, many of these numerical values have been crossed out by hand in different colors of ink; some columns show several numbers crossed out, rewritten, and recrossed out. Most of the crossed out values fall within the "T" column. Further, *1386 there are other job titles handwritten onto the document in red ink; many of these job titles do not have numerical values associated with them. Some of the typewritten job titles are crossed out, some are changed, and some have handwritten "check" marks next to them. Stray handwritten marks found on the document include question marks, dates, apparent deletions of entire sections, the letter "x", words such as "ok", "wrong", and "out", and illegible scribbling. Two of the pages have sections of yellow legal paper pasted or taped onto them; handwritten on those pieces of legal paper are job titles for which there are handwritten columns but no numerical values.

Vito Competiello-a former employee of the Nassau County Civil Service Commission who participated in the Cresap job evaluation process, Tr. 288—testified that Exhibit 616 (a monochromatic photocopy of Exhibit 616-A, Tr. 838) is a draft for a master compilation of Nassau County job titles and of the job evaluation point scores for those titles. Tr. 334, 376. Accordingly, the notations at the tops of the columns on Exhibit 616-A denote the four Cresap evaluation factors: knowledge and skills ("K-S"), complexity and variety of duties ("C-V"), responsibility for independent action ("IA"), and supervisory responsibility ("S"). The "T" column is intended to represent the total of these point values for each job title. Competiello testified that he recognized some of the handwriting on Exhibit 616 as his own, but he could not identify many of the notations. He did not unequivocally indicate that he could identify when the information on Exhibit 616 was compiled or what use, if any, was made of it.

The plaintiffs have assumed that Exhibit 616-A contains the final results of the Nassau County job evaluation

process—that is, that it lists "the point scores assigned to Nassau County jobs in 1966 by the team that applied the four-factor job evaluation methodology" of the Cresap process. Tr. 613; see also PX 1075 at 1 (supplemental report of Dr. Treiman to plaintiffs, dated November 1989 and entitled: "Job Evaluation Points and Ordinanced Salary Grades: Discriminatory Changes in Salary Grade Assignments, Nassau County 1966–67"). On this assumption, Dr. Treiman, on behalf of the plaintiffs, calculated the salary grades "that would have resulted from the [] point scores" on Exhibit 616, PX 1075 at 1; he then compared these grades to the grades that were proposed by Cresap in its final report to the County and to the grades that were eventually enacted by the County in 1967. The purpose of this exercise was "to ascertain whether changes in salary grades subsequent to the evaluation reported in Exhibit 616 were related to the gender composition of jobs." PX 1075 at 1.

Again, Dr. Treiman found evidence of discrimination. He recanted the finding of his earlier report to the effect that "[b]ased on Exhibit 616, it now appears that the job evaluation procedure itself may have been carried out in good faith ... but that subsequent to the evaluation procedure the salary grades of a large number of Nassau County jobs were altered in a discriminatory manner." PX 1975 at 2. That is:

Specifically, in the final report to Nassau County submitted to Nassau County by Cresap [Exhibit 621] the salary grade of the average employee in male-dominated jobs was increased by nearly two grades (1.9) while the salary grade of the average employee female-dominated jobs was not increased at all.... Subsequent to the Cresap report, there was a minor reduction in this differential, so that the ordinanced salary grade for the average employee in a male-dominated job was 1.6 grades higher than the salary grade derived from the point scores in Exhibit 616, while the ordinanced salary grade for the average employee in a female-dominated job was one-tenth of a salary grade higher than the salary grade derived from Exhibit 616.

PX 1074 at 2.; Tr. 619–20. Thus, for example, after he converted the point scores on Exhibit 616 into salary grades, Dr. Treiman found that the mean salary grade for jobs that were 81% to 90% male in 1967 would have been 8.1 as scored on Exhibit 616. But as recommended in the final Cresap report, the mean salary grade for those *1387 jobs was 9.5. On the whole, he found that the difference in mean salary grades for male-dominated jobs between the Cresap final report and Exhibit 616 was 1.9; the difference in mean salary grades between the Cresap final report and Exhibit 616 for female-dominated jobs was 0.0. PX 1075 at Table 1.

Dr. Treiman concluded that the existing differential in salary grades between male-dominated jobs and female-dominated jobs "is mainly attributable to changes in the salary grade of male dominated jobs between the [Exhibit] 616 point scores and the Cresap final report." Tr. 620. Finally, Dr. Treiman determined that these changes in mean salary grades strongly supported an inference of sex discrimination:

Although I do not know who is responsible for these alterations, their intent and effect are completely clear—to increase the salary grades of the largest male-dominated jobs relative to what these jobs should have been paid on the basis of an application of Nassau County's own criteria for determining compensation.

PX 1075 at 2-3 (emphasis in original).

However, the court is unable to agree with the plaintiffs as to the nature of Exhibit 616-A. Most importantly, the court cannot find that Exhibit 616-A constitutes a master compilation of the final scores from the Cresap job evaluation process. Rather, Exhibit 616-A is clearly a working draft that was not a list of the ultimate scores from the job evaluation process but rather part of the job evaluation process itself. The lists in Exhibit 616-A are incomplete. For example, there are typewritten job titles with point values on Exhibit 616-A that do not appear at all in the final Cresap report. Compare, e.g., PX 616-A at 18 ("Hospital Administration Trainee") with PX 621. Conversely, there are approximately one hundred job titles handwritten onto Exhibit 616-A that have no point values assigned at all. The plaintiffs argue that these were jobs added to the Nassau County system after the classification process, and Competiello initially confirmed this view. Tr. 361. However, a comparison between these titles and the addendum to the final Cresap report that lists the titles created through the appellate process demonstrates that the plaintiffs' argument is groundless—and that Competiello's recollection was inaccurate. Tr. 376.

Moreover, perhaps one-quarter to one-third of all the numerical values in the "T" column are crossed out; a small number of those have new values written in either above or next to the old values. Almost invariably, where new numbers are recorded in the "T" column, at least one of the values in the other four columns has been changed. This fact strongly suggests that Exhibit 616–A records many of the moments of review and revision in the job evaluation process. Similarly, numerous notations are scattered throughout Exhibit 616–A; entire groups of job titles are crossed out or are inserted; question marks, "stars", and "check" marks all indicate that Exhibit 616–A represents anything but the end of the job evaluation process.

The plaintiffs have attempted to make much of the fact that Competiello identified as his handwriting a notation on page 15 of Exhibit 616 that reads "6/8/66." Tr. 336. The plaintiffs argue that this notation—dated in the same month that Cresap issued its final report to Nassau County-demonstrates that Exhibit 616-A was a master list that recorded all the point scores for the Nassau County titles from which Nassau County selectively departed in the assignment of salary grades. But that conclusion is not supported by the exhibit when considered as a whole: As indicated, there are over one hundred job titles listed on Exhibit 616-A for which no point scores at all have been recorded. Thus, if the fact that Competiello wrote on the document a date contemporaneous to the issuance of the final Cresap report demonstrates anything of significance, it shows that Exhibit 616-A could not have been a catalogue of the "final results" of the job evaluation process. Similarly, other dates recorded on Exhibit 616-A are inconsistent with the plaintiffs' understanding of that document. For example, another notation *1388 on page 15 of the exhibit records a date in September of 1965. Tr. 336. But Competiello testified that the job evaluation process did not even begin until early 1966. Tr. 308, 317. Such inconsistencies between Exhibit 616-A and the testimony of Competiello about the Cresap process further obscure the meaning and the significance of that document.

Moreover, the court notes that Competiello could not recall clearly the nature and the purpose of Exhibit 616—a document that he had not reviewed in the 24 years between the Cresap process and this litigation. Competiello was unable to identify the document with

confidence as anything more than a draft, and he did not satisfy the court that the numerical values recorded on Exhibit 616 were the "final results" of the job evaluation process. Tr. 333-34, 343; compare Tr. 356 with Tr. 376. Curiously in this regard, the plaintiffs never asked Competiello to identify Exhibit 616-A—the color copy of the original document which clearly revealed different markings in different colors of ink. Rather, they asked him only to identify Exhibit 616, a monochromatic photocopy of that document. The reluctance of the plaintiffs to provide Competiello with an exhibit which more closely approximates the original document about which he was to testify is troubling to this court, and it underscores the degree to which Competiello was easily led by the questions asked of him as to the nature and the content of Exhibit 616. Compare Tr. 356 with Tr. 376. Quite frankly, the court found that Competiello improvised many of his "recollections" about Exhibit 616. Compare with Tr. at 305 (Competiello inaccurately recalling number of desk audits conducted during Cresap process). For this reason, the court does not credit Competiello's testimony as to the nature of Exhibit 616.

More credibly, Competiello testified that the job evaluation process—through which points were assigned to job titles—was a protracted undertaking. Tr. 333. He also testified that many of the early "results" were revised on the basis of information gathered during the desk audit phase of the classification process; for example, a member of the Cresap team who thought that a particular job had been inadequately scored might suggest aspects of the job that would merit a change in that score. Tr. 333. The markings of Exhibit 616-A confirm this testimony. In any event, Competiello testified that, after initial scores were assigned to jobs by individual members of the team, all four members reviewed and discussed the preliminary scores in order to make informed and consistent modifications. Tr. 333. Exhibit 616-A plainly captures one—or perhaps many—of the moments in that process; but the court has no satisfactory basis on which to conclude that 616-A is the last moment-or even a significant moment of that process. Indeed, the fact that Exhibit 616-A was found in the files of Nassau County strongly suggests that it was not ever transmitted to Cresap for incorporation into the final report. Interestingly, the plaintiffs did not present the exhibit to those witnesses who had worked for the Cresap firm during the job evaluation process. The court simply cannot conclude that Exhibit 616-A is in any manner a reliable indication of what the final job evaluation scores were. In other words, the probative value of this exhibit is limited to confirming that the Nassau County team did in fact score job titles, did in fact total those point scores, and did in fact make numerous revisions to the points throughout the evaluation process. But those facts were never in dispute in this action.

Even if this court could have agreed with the plaintiffs that Exhibit 616-A lists the final results of the job evaluation process, the court would nonetheless be compelled once again to disregard the conclusions drawn from that document by Dr. Treiman. As indicated above, Dr. Treiman undertook an analysis of the salary grades that would have been generated by the point scores on Exhibit 616–A (again, on the assumption that the exhibit lists the final results of the job evaluation process), and he compared those salary grades to the salary grades ultimately proposed by Cresap in its final report to the County. He found that the average salary grade for male-dominated *1389 jobs in the final Cresap report was 1.9 grades higher than the average salary grade for male-dominated jobs that would have been the result of the point score totals on Exhibit 616-A. Dr. Treiman also found that the average salary grade for female-dominated jobs in the final Cresap report was the same as the average salary grade for female-dominated jobs that would have been compelled by the point score totals on Exhibit 616–A.

But Dr. Treiman's study is unreliable. First (and of less importance), the basis upon which Dr. Treiman determined whether a particular job title was male-dominated or female-dominated in 1967—the time of the Cresap process and, hence, the time relevant to studying "selective departures" in that process—is weak. As indicated above with respect to his "training and experience" study, Dr. Treiman's data as to the sex composition of Nassau County jobs in 1967 are somewhat suspect, and the plaintiffs have provided no basis on which to evaluate the trustworthiness of the process by which those data were derived. Again, however, the problems with these data are most telling insofar as they simply reveal the casual procedures that characterize Dr. Treiman's work as a whole. Similarly, the data base used by Dr. Treiman as to the point scores on Exhibit 616 was prepared for him entirely by the plaintiffs' attorneys. However, he testified that he himself is unable to verify the reliability of those data:

Q: Well, did you ever make any inquiry to find out how this information had been assembled for you?

A: I am sure that we discussed it. I do not recall the discussion.

Q: Wouldn't you agree with me, Doctor Treiman, that the accuracy of the data that you're analyzing is something that's very important to an expert like yourself? A: Yes.

Q: And, in fact, if the data isn't right, the analysis surely isn't right. Isn't that correct?

A: Yes.

Q: It's the old story of bad in and bad out, right?

A: Yes.

Tr. 716–17. That Dr. Treiman would adopt as his own data which he is unable now to validate illustrates the cavalier—or, worse, partisan—character of his endeavors in this action. The court is unable to credit completely the reliability of quantitative evaluations made by the plaintiffs' attorneys' paralegals and accepted at their face value by an expert—particularly to the extent that the expert acknowledges that his conclusions are only as reliable as his data.

Further, the assumptions made by Dr. Treiman—or, more accurately, by the plaintiffs' attorneys who compiled the data used by Dr. Treiman in all his studies—as to the point totals on Exhibit 616 are dubious at best and inexcusably deficient at worst. Dr. Treiman grounded his analysis on the point totals as they are found on Exhibit 616; but he admitted that, wherever Exhibit 616 contains a job point total that is crossed out but that does not have a new value written in, Dr. Treiman used the crossed out value as the point total. Thus, for example, Dr. Treiman determined that the salary grade for the title of Cashier II would have been a grade of six on the basis of Exhibit 616; but a review of either Exhibit 616 or of Exhibit 616-A reveals that the only point total written in for Cashier II has been crossed out. Dr. Treiman nonetheless assumed that this crossed-out value represented the "final result" of the job evaluation process for the title of Cashier II. Compare PX 616-A at 3 with PX 621 at III-4 and with PX 1075 at Table 2. He made similar assumptions as to at least one hundred more job titles for which numbers in the "T" column had been crossed out.

As though this aspect of his methodology were not sufficiently questionable, Dr. Treiman did not even apply it consistently. In those instances for which a value had been crossed out in the "T" column and for which a new value had been recorded by hand, Dr. Treiman used the second value—not the first—as the basis for his analysis. PX 1075 at 2 n. 1; Tr. 799. Thus, rather *1390 than proceed uniformly on the assumption that the initial values were the "final results" of the Cresap job evaluation process, Dr. Treiman determined that a later recorded value was the "final result" of the job evaluation process. This inconsistency obviously takes no account of the very compelling inference that, as with the job titles

for which new point totals had been recorded, new values were contemplated and intended for the job titles as to which the initial point totals had been crossed out. Thus, for Dr. Treiman, a point total was "final" if it had been simply crossed out; if a point total had been crossed out and revised, the newer total was the "final result." The court simply cannot agree that any aspect of Exhibit 616–A warrants Dr. Treiman's casual methodological distinctions. Indeed, Dr. Treiman did not even undertake to determine whether these revisions on the face of Exhibit 616 would support an inference of discriminatory modifications—even though he conceded that, given the purpose of his study, it would have been a "reasonable thing to do." Tr. 847–48.

To the extent that Dr. Treiman's analysis relies on hundreds of numerical values of uncertain significance or finality-and to the extent that Dr. Treiman treated these values inconsistently—the court cannot accept his findings as reliable analyses of Exhibit 616-A. Pages and pages of numerical values on Exhibit 616-A have been stricken, and yet Dr. Treiman-with no apparent justification-treated those values as "final results." Moreover, as noted above, many of the job titles on Exhibit 616-A have no point totals indicated at all; Dr. Treiman, of course, had to omit those titles from his study. For all these reasons—and, again, because his testimony on these points was simply unpersuasive—the court finds Dr. Treiman's analysis of this document to be of no probative value: It provides no basis for a finding of discriminatory intent in the execution of the Cresap process.

One of the experts who testified on behalf of the defendants, Dr. Jones, indicated that his own analysis of Exhibit 616–A was inconsistent with any inference of discriminatory intent in the Cresap evaluation process. Dr. Jones first examined the changes that appear on the face of Exhibit 616–A to determine whether or not they bore any statistical relationship to the sex composition of Nassau County jobs; he found that they did not. Tr. 1541–44.

Next, Dr. Jones undertook to determine whether or not the results found by Dr. Treiman—that the differences in mean salary grades between Exhibit 616–A and the final Cresap report suggested discrimination against women—would still hold after the introduction of variables other than the sex composition of jobs. More specifically, Dr. Jones evaluated Dr. Treiman's results with the introduction of one variable to represent the market salary data collected by Cresap and of a second variable to represent the pre-Cresap salaries of Nassau County jobs. Tr. 1547–48. Dr. Jones found that, after a regression analysis with these variables, the market-data

variable and the existing-salary variable helped to explain the salary grade differential between Exhibit 616–A and the final Cresap report. Tr. 1550. He also found that the sex composition of these job titles was no longer statistically significant after the introduction of these new variables. Tr. 1550. In other words, Dr. Jones reported that, on a statistical analysis, the differences in mean salary grade that Dr. Treiman identified are better explained by the market information collected by Cresap and by the pre-Cresap salaries of Nassau County jobs than by the sex composition of those titles.

A similar regression analysis conducted by a second expert for the defendants, Dr. Joan G. Haworth, an economist, achieved results consistent with the findings of Dr. Jones. Tr. 2020-25; see also DX KKK-8. Dr. Haworth found that the factors of the 1967 salary market and of the pre-Cresap pay rates exhibit a stronger statistical relationship to the "changes" between Exhibit 616-A and the final Cresap report than does the factor of sex composition. Tr. 2023; DX KKK-8. She testified that the "gender coefficient" identified by Dr. Treiman in his analysis of Exhibit 616 and of *1391 the Cresap final report becomes statistically insignificant when market and pre-Cresap salaries are introduced. Tr. 2023. Thus, from these reports, the defendants would have the court infer that these salary grade differentials are not the product of sex discrimination but of an attempt to adjust salary grades so as to track market salaries and so as not to depart from pre-Cresap salaries.

For the most part, the court finds Dr. Jones' and Dr. Haworth's modifications to Dr. Treiman's study to be reliable (although the court has some reservations about the methods by which Dr. Jones narrowed the relevant data base, see Tr. 1673-80); that is, the court generally accepts the results of the regression analyses of Drs. Jones and Haworth. Nonetheless, the court finds their conclusions in this regard to have little weight. First, as indicated above, the court has determined that Exhibit 616-A cannot be read as a reliable source of data concerning the job evaluation survey. To the extent that Dr. Treiman's data as to point score values are not trustworthy, the analyses of Drs. Jones and Haworth (which parallel Dr. Treiman's study) are equally dubious representations of what happened during the Cresap process. Even though Drs. Jones and Haworth made changes to Dr. Treiman's data base for their studies, Tr. 838, 842, and 1538-39, their data bases were nonetheless derived from the same unreliable source as was Dr. Treiman's—that is, from Exhibit 616-A.

Further, the court finds that there is at best only an incomplete basis in the record to support a conclusion that market data and pre-Cresap salaries were actually

considered in the setting of salary grades during the Cresap process. Although the final Cresap report indicates that jobs were evaluated and grades were assigned on the bases of the four factors indicated above, the report does not state that no other factors were considered. Nonetheless, the evidence that these two particular factors—labor market data and pre-Cresap grades—were also used in the determination of specific salary grades is not compelling.

First, as indicated above with respect to the training and experience study of Dr. Treiman, the court finds no satisfactory basis on which to conclude that the Cresap process entailed the use of labor market data to set specific salary grades. Next, as to consideration of pre-Cresap salaries, the evidence is even less supportive of the defendants' argument. Not only was there absolutely no testimony that the County team or the Cresap personnel modified salary grades in order to maintain pre-Cresap salaries, the final Cresap report strongly implies that such was not the case. The cover letter for the Cresap report indicates that, in those cases for which the proposed salary grade would generate a salary lower than the present salary of a job title, "[n]one of these individuals should have his salary reduced so long as he holds the position, but such employees should not continue to receive salary increases in the future unless they are moved to higher level positions." PX 621 (cover letter). This proposed process for handling disparities between existing salaries and proposed salaries—known as "redlining" of job salaries, Tr. 852—is simply inconsistent with the argument of the defendants that salary grades were altered so as not to effect significant changes in the Nassau County salary status quo.

For all these reasons, the court is unable to attribute more than minimal weight to the modifications to Dr. Treiman's report that were conducted by Drs. Jones and Haworth. Indeed, the court finds it more than a little remarkable that so much expert time and so much expert money were devoted to an exegesis of Exhibit 616–A—a document of obscure content and of dubious significance. As indicated above, Exhibit 616–A is not at all probative of the "final results" of the job evaluation process; as such, the studies and analyses of Exhibit 616–A are not probative of discriminatory intent in that process.

4. Conclusion as to Cresap Process

Finally, the court finds that—beyond the studies of Dr. Treiman and beyond Exhibit 616–A—the plaintiffs

introduced no other *1392 evidence that was probative of discriminatory intent in the Cresap process. Indeed, as indicated above, testimony adduced by the defendants indicated that no one associated with that process had any information as to the sex composition of Nassau County jobs in 1967. See, e.g., Tr. 377, 1455, and 1610. This fact-along with the difficulty encountered by the plaintiffs in collecting such data—confirms that the participants in the Cresap process had no particular knowledge as to the sex composition of individual Nassau County job titles at the time of the salary grading process. Again, every witness associated with that process denied that any decision or determination was ever made on the basis of the sex of job incumbents or on the basis of the sex domination of any particular title. See, e.g., Tr. 348, 377, 435, 1455, and 1464. The court found those denials credible and consistent with the evidence adduced by the plaintiffs as to the Cresap process. Accordingly, the court finds that there was no discriminatory intent in the Cresap job classification and evaluation process.

B. Discrimination after the Cresap Process

1. Perpetuation of the Cresap System

The plaintiffs argue that the discriminatory aspects of the Cresap system have been perpetuated by the County. Specifically, the plaintiffs point out that the Cresap system remained in place through the time of this trial and that new job titles in Nassau County are assimilated to old job titles. See, e.g., Tr. 389-96 and 1282-84; PX 1074 at 17-19 (report of Dr. Treiman); see also PX 1096 at 10-13. However, the fact that Nassau County continues to use the Cresap structure as the basis for its classification and compensation system is only probative of discriminatory intent to the extent that the initial execution of the Cresap process involved discriminatory intent or to the extent that it is perpetuated because that has adverse effects on women female-dominated jobs. The court has already determined, however, that there is no evidence of discriminatory intent in the Cresap process. Further, the plaintiffs introduced absolutely no evidence that the County continues to use the Cresap system because it treats these plaintiffs less favorably than it does other employees. Accordingly, the mere fact of the perpetuation of that system-either through preserving existing titles and salary grades or through assimilating new titles to old ones-does not indicate that the County of Nassau has in the past or does now discriminate against its female employees in compensation.

2. Requests for Upgrades since Cresap

The plaintiffs sought also to show that the manner in which the County has considered requests for upgradings of particular titles since the Cresap process is probative of discriminatory intent by the County. That is, the plaintiffs attempted to show that the County has generally denied requested upgrades for female-dominated job titles but that the County has expeditiously granted upgrades for male-dominated titles. See, e.g., PX 1074 at 19-28 (report of Dr. Treiman). However, the court finds that the evidence on this issue is not as simple as the plaintiffs have presented it; rather, the evidence reveals that the County has undertaken a variety of legitimate responses for non-discriminatory reasons to the problems that drive requests for upgrades. That is, the court finds that the evidence on this point does not support an inference of discriminatory intent.

As a threshold observation, this court was disturbed by the report and the testimony of Dr. Treiman on this question of the County response to upgrade requests. See PX 1074 at 19–28; Tr. 634–36. With the exception of a brief "quantitative analysis" in his report, Dr. Treiman's conclusions are based on a review of County memoranda and of deposition testimony; his report details little more than his inferences and "impressions" from those sources. See, e.g., PX 1074 at 23. A study of the evidence evaluated by Dr. Treiman readily reveals that it presents factual issues properly resolved by this court—not by an expert witness. Indeed, it is plain that Dr. Treiman's expert qualifications as a sociologist and as a statistician were entirely *1393 irrelevant to this segment of his report.

As indicated above, employees and departments often request upgrades for particular job titles. These requests are reviewed by the Nassau County Civil Service Commission; although the Civil Service Commission either recommends or disapproves of the requested upgrade, final authority to change the salary grade of a job title rests with the Board of Supervisors. Further, the two principal criteria on which the Civil Service Commission considers requests for upgrades are changes in the complexity of job duties over time and problems with recruitment or with retention of personnel.

Almost all the job titles in the caseworker career line—the incumbents of which handle adoptions, foster care, and protective services—are female-dominated. Tr. 450–51; PX 672. Despite the fact that the Department of Social

Services has perceived increasing complexity of job duties in these titles, PX 1086 at 23-28—and despite the fact that there have been clear recruitment and retention problems for the lower caseworker job titles, Tr. 451 and 947—the County has denied requests for upgrades of these titles even when recommended by the Civil Service Commission. Tr. 456-57 and 924-25. However, two important facts undermine any inference of discriminatory intent: First, retention problems in the caseworker title series have arisen largely from the fact that the male and female incumbents of those jobs move almost invariably and always freely into the more highly paid job titles of the probation officer job series. PX 126; Tr. 452, 481, 925-26, 1277, and 1412-13. That the County has never sought to prevent the female caseworkers from effectively "upgrading" themselves into more well compensated positions with the County belies the notion that the County has intentionally underpaid them because they are women. Second, in lieu of specific upgrades, the County has encouraged mass promotions of caseworkers into higher titles within that job series—thereby increasing their salaries. PX 1086 at 31.

Similarly, the Department of Social Services has frequently sought upgrades for the job titles in the female-dominated social welfare examiner job line. Tr. 449-450 and 496. The Department has demonstrated to the Civil Service Commission that it has had severe retention problems in the Social Welfare Examiner I title and that the salary for that title was below market rates. Tr. 445-50. All requests for upgrades have been denied by County officials—even when recommended by the Civil Service Commission. Tr. 450 and 924. However, to alleviate the retention problems, the Civil Service Commission permitted the Department to institute rapid mass promotions of employees in the title of Social Welfare Examiner I to the title of Social Welfare Examiner II. Tr. 474-76, 479 and 1271. The result of this policy is that employees in the entry level position of Social Welfare Examiner I are now promoted after only six months to Social Welfare Examiner II—and that they receive a three-grade increase upon promotion. Tr. 477. Thus, in effect, the lowest level employees of the social welfare examiner job series have received a three-grade upgrade. Tr. 475-77. This has reduced the retention problems in that job series. Tr. 477. To the extent that this job series is female-dominated, the policy of early and regular promotions-with its attendant increase in salary—is plainly inconsistent with discriminatory intent.

The dietitian job series is female-dominated. PX 672. The plaintiffs argue that two aspects of the salary grades for these jobs reveal discriminatory intent. First, although one of the "rules of thumb" of the personnel specialists at the Civil Service Commission is that job titles that require a

baccalaureate degree are given a salary grade of ten, the title of Dietitian I (which does require such a degree) was given a salary grade of nine through the Cresap process, and that grade has remained unchanged. PX 672. Second, repeated requests for upgrades because of recruitment and retention problems have been denied. Tr. 457-58, 934; PX 262; but see DX ZZZ-3 at 10. However, as to the first of these, the court notes that "training and *1394 experience" was only one of four factors on which a job was evaluated and on which a salary grade was assigned during the Cresap process. Thus, that Dietitian I was given a salary grade of nine and other job titles that required a college degree were given a grade of ten is not in itself particularly probative of discriminatory intent. Cf. Tr. 392. Next, although the County has denied upgrade requests for the dietitian series, it has undertaken to hire new employees for these jobs at higher salary steps. Tr. 482. In other words, the County now pays those employees-who are, by hypothesis, women—more than it did before. Tr. 482-83. Discriminatory intent cannot be inferred from the fact that the County has refused to grant an increase in salary grade while effectively granting an increase in the salary itself.

The plaintiffs make similar arguments as to the job titles in the career series of physical therapists and of occupational therapists. The court notes first that not all the job titles in these career lines are female-dominated. For example, Physical Therapist I has six male incumbents, five female incumbents, and one incumbent whose sex is not reported in the record. See PX 672. In any event, the County has refused to grant upgrades to these titles despite severe recruitment and retention problems. Tr. 518–19. Again, however, the County has begun to hire employees for these titles at higher salary steps—thereby providing higher compensation for these jobs. Tr. 518–19.

The registered nurse job titles are female-dominated. PX 672. Since at least the early 1980s, recruitment and retention problems in these job titles have been severe and persistent. Tr. 525–26. Nonetheless, the County has increased compensation for these employees more than once. In 1982, the County began to higher nurses at above entry-level salary steps. Tr. 917–18; in 1987, the County granted (through the collective bargaining process) a one-grade "vertical" upgrade—pursuant to which nurses were moved to the next higher salary grade at the same step they had previously occupied. Tr. 1362–64 and 1372. In that the County has increased the pay of these job titles, the court is unable to find that the response of the County to recruitment and retention problems with registered nurses reveals any discriminatory intent toward women.

In contrast to all these job titles for which upgrades have

been denied but for which special pay increases have nonetheless been granted, the female-dominated job series of police communications operator appears to have suffered from chronic and severe recruitment and retention problems for the better part of a decade. PX 912-M. Nevertheless, requests for upgrades have been denied. Tr. 1122-26. The County has adduced no evidence that these job titles received increases in compensation to address these recruitment and retention problems. This failure by the County to upgrade these titles or otherwise to provide additional pay to the job incumbents is inconsistent with the County policy of providing salary increases under such circumstances; however, the court is unable to conclude on the basis of one such example that the County systematically and regularly discriminates against female-dominated jobs in considering requests that job titles be upgraded. Rather, the singularity of this example indicates that it is an aberration.

With respect to the job series of nurses' aides, patient care assistants, and clerical positions, all female-dominated, the court is unable to find evidence of discriminatory intent by the County. As to nurses' aides, recruitment problems have not been significant. Tr. 459-60. As to patient care assistants, there was no evidence that any recruitment or retention problems have ever been encountered. Rather, the plaintiffs adduced evidence that the duties of patient care assistants have become more complex. Tr. 572-73. The court found the testimony on this point to be vague and unpersuasive. Also, as to the clerical job titles, the court did not find that the recruitment problems about which the plaintiffs adduced testimony were so clear as to suggest that the County was disregarding its own criteria in denying upgrades to these positions. Compare Tr. 528-31 with PX 1096 at 36. The *1395 treatment of these three job series does not furnish a basis for an inference of discriminatory intent.

The plaintiffs contrast all these instances of denied upgrade requests in female-dominated job titles to instances of granted requests in male-dominated and in mixed job titles. Thus, for example, titles in the job series of veterans counselor have been upgraded—as have job titles for pharmacists, public health engineers, environmental chemists, ambulance medical technicians, computer programmers, and automotive maintenance coordinators. See PX 587, PX 608, Tr. 922, Tr. 920, PX 608, DX C-40, Tr. 1336-40, and PX 389. However, these upgradings are probative only of the fact that the County does change salary grades-and, hence, salaries-when recruitment and retention problems or when changes in job duties so merit. That these male-dominated and mixed titles have been upgraded would be probative of discriminatory intent by the County if female-dominated jobs that had similar justifying reasons were denied upgrades or the equivalent of upgrades—that is, increases in salary. But the fact that such female-dominated jobs as caseworkers, social welfare examiners, dietitians, and therapists have experienced salary increases—albeit not through the form of upgrades—in response to similar problems does not indicate any discrimination by the County. Rather, it indicates precisely what one would expect: that when the County experiences difficulty in hiring and retaining qualified employees, the County adjusts the compensation of those employees in order to remain competitive in the local labor market. The fact that some of these pay increases are through the form of upgrades while others are in forms more narrowly tailored to address a particular problem (for instance, the institution of above-step hiring to meet recruiting needs) is clearly of no consequence: In either event, salaries are increased. Indeed, the County employees who have been responsible for the evaluation of upgrade requests flatly denied that the sex of job title incumbents has ever entered into any such compensation decision. See, e.g., Tr. 435, 946, 1279-80, 1858-59; see also PX 1096 at 70-71. Again, this testimony is consistent with the other evidence presented.

C. Statistical Analyses of Current Salaries

The plaintiffs introduced extensive expert testimony to demonstrate that there is at present a significant disparity salaries between male-dominated jobs female-dominated jobs in Nassau County. Their expert also testified that this compensation disparity correlates to a statistically significant degree with the sex composition of the jobs. On the bases of multiple regression analyses, the plaintiffs' expert attempted to demonstrate that the compensation disparity was understandable only with reference to the sex of Nassau County job incumbents. The defendants, however, introduced expert testimony in order to demonstrate that the present compensation disparity in Nassau County jobs was better explained by such factors as the labor market and the number of hours worked each week by employees. The court makes the following findings of fact with respect to the testimony of these experts.

1. Dr. Michelson's Report

The plaintiffs' expert witness on the matter of current salaries in Nassau County was Dr. Stephan Michelson, an economist and consultant who has appeared as an expert witness in many Title VII actions. Notwithstanding that in opening remarks plaintiffs' counsel promised that Dr. Michelson would provide compelling evidence of discrimination, Tr. 13–14, and notwithstanding that the plaintiffs paid Dr. Michelson over \$850,000.00 in fees even before this trial began, the plaintiffs have since tempered their estimation of the comparable worth of Dr. Michelson's services. See, e.g., Plaintiffs' Post–Trial Brief at 30 (statistical analyses by Dr. Michelson "not critical to the outcome in this case"); see also Tr. 2154 (argument of plaintiffs' counsel to court that "[t]his case ultimately shouldn't turn on statistics"). The plaintiffs' reevaluation of Dr. Michelson is prudent: Dr. Michelson proved to be as evasive a witness *1396 as Dr. Treiman. See, e.g., Tr. 113–14, 132–138, and 144–48.

Dr. Michelson initially submitted a report to the plaintiffs on February 20, 1989; on November 1, 1989, he revised that report by means of appendices "F" and "G" to the original report. PX 1057 (report of Dr. Michelson to plaintiffs, dated November 1989 and entitled: "A Study of Salary Rate Differences Between Male and Female Employees of Nassau County, N.Y."). Dr. Michelson himself appears to believe that the revisions of his new report greatly enhance the quality of the initial study: "The result of these refinements is to make this presentation ... the most exacting model of a salary system, using the most error-free data set, ever presented in litigation." PX 1057 at G-3. In any event, the revisions to Dr. Michelson's first report certainly had the effect of reducing the salary differentials that he attributed to sex. Tr. 132. To the extent that these reports are inconsistent, the court will consider his revised report as superseding his initial report.

Dr. Michelson undertook to evaluate the salaries of "historically" male-dominated jobs and "historically" female-dominated jobs (although he conceded to the court that he had no adequate bases on which to characterize job titles as "historically" male- or female-dominated). Tr. 13. Dr. Michelson proceeded, as have all persons involved in this case, on the arbitrary demarcation established by the plaintiffs as to sex domination: That is, Dr. Michelson accepted as given that a job title comprised of 70% women is "female-dominated" but that a job title with 69% women is "mixed." Tr. 13–14 and 114.

Dr. Michelson considered the mean salaries for Nassau County employees in the years 1983 and 1986. Tr. 9. He found that the raw difference in the average salaries of male-dominated jobs and of female-dominated jobs was \$7,873 in 1983 and \$9,166 in 1986. Tr. 15. Dr. Michelson then undertook to subject these "raw differences" to multiple regression analysis. Principally, Dr. Michelson sought to determine how much of these basic disparities

were attributable to differences in the descriptions for the Nassau County job titles—the bases on which the Cresap team had ultimately evaluated jobs and assigned salary grades. In his final analysis—with Nassau County police officers considered separately (because they have a separate pay system, Tr. 29-30) but with job descriptions accounted for-Dr. Michelson found that the difference between the average salary of male-dominated jobs and the average salary of female-dominated jobs was \$2,473 in 1983 and \$3,298 in 1986. Tr. 16; PX 1057 at G-20. Cast in slightly different terms, Dr. Michelson found—again, with police considered separately and with job descriptions accounted for-that every percentage point increase of females in a Nassau County career line corresponded to a decrease in salary of \$31 in 1983 and of \$42 in 1986. PX 1057 at G-21. Dr. Michelson testified that these sex-associated differences in salaries are not random. Tr. 104-05. Rather, Dr. Michelson found that the salary disparity in Nassau County is clearly related to the sex of Nassau County employees. Tr. 104-05, PX 1057 at

The methodology of Dr. Michelson's study was to analyze Nassau County job descriptions and to try to create an independent variable for every aspect of these specifications that have a bearing on salaries. He noted that, although the Cresap team formally evaluated each job on the basis of four factors, these factors could be subsumed, in his opinion, under two groups: (1) factors that concern characteristics of the employee sought for the job (such as education and experience); and (2) characteristics of the job itself (such as complexity of duties and supervisory responsibility). Tr. 31. Dr. Michelson also recognized, aside from the job descriptions, that the seniority of employees has an effect on salary, and he attempted to account for that fact in his regression analyses. PX 1057 at 133. But his principal task was to evaluate the effect that the characteristics of the Nassau County job descriptions have on the critical dependent variable against which all aspects of this lawsuit are measured-salary. It was therefore the objective of Dr. Michelson to account *1397 for as many of these characteristics as was both possible and appropriate. PX 1057 at G-21 to G-22.

In the formulation of his data base, Dr. Michelson began with the decision to analyze "career lines" rather than separate job titles. Tr. 34–35. Thus, rather than consider separately the jobs of Probation Officer Trainee, Probation Officer I, Probation Officer II, Probation Officer Supervisor I, and the rest of the probation officer jobs separately, he evaluated the entire probation officer career line as one unit. Dr. Michelson also testified that, in Nassau County job titles, most women are in female-dominated career lines and most men are in

male-dominated career lines. Tr. 53.

As noted, the most significant aspect of Dr. Michelson's study was his derivation of independent variables from the Nassau County job descriptions. With the aid of the "writer's manual" produced by Cresap to train the Nassau County team to write job descriptions, PX 620, Dr. Michelson translated the language of these title specifications into several dozen independent variables. Tr. 60. For example, many job specifications indicate that a particular job title requires a certain degree of knowledge about certain subject matter. If the specification indicated that the title required only some or no knowledge about certain subject matter, Dr. Michelson recorded the variable "KNOW01" for that job. If the job specification indicated that "knowledge" simpliciter was required, he coded it as "KNOW2". The variable "KNOW3" and "KNOW4" represented job specification language of "considerable knowledge" and of "thorough knowledge" respectively. PX 1057 at G-5; Tr. 60; see also PX 1057 at 100-01 and at G-4 to G-5 (comprehensive lists of independent variables). Dr. Michelson conceded that he did not attempt to code every "minute variation" in the language of the job specification and also that such coding of language required subjective judgments, Tr. 73-75; nonetheless, he testified that, in his opinion, he had accounted for all variables that had explanatory power with respect to the salary differentials he had earlier identified. Tr. 77.

Again, after coding the language of the job specifications—both the characteristics of the job itself and the characteristics of the person required for the job—into independent variables and after accounting as well for seniority, Dr. Michelson concluded that:

[S]ome of the salary differential is explained by characteristics held differently by males and females. gained (arguably and assumedly) independent of the actions of Nassau County. Some of the salary differential is explained by differences in the specifications of the jobs males and females are in. However, ... neither individual nor job characteristics explain all of the sex-related salary differences. Salary appears to be related to gender itself.

Although the scope of Dr. Michelson's undertaking in this was ambitious, certain methodological shortcomings prevent this court from assigning more than minimal weight to his conclusions. As a threshold matter, the court must discount somewhat Dr. Michelson's own assertions that he accounted for all statistically significant variables in his regression analysis. He himself testified that he had to revise his initial report because he concluded that important variables had not been considered. Certainly he would not have submitted his initial report as "final" in February of 1989 did he not believe then that it was comprehensive. He also characterized the process of identifying and of coding significant aspects of the job specifications as "unending." Tr. 20.

Perhaps one of the most troubling aspects of Dr. Michelson's study is that, even though he himself did not personally code any of the job specifications, and even though he acknowledges that the coding process required subjective judgments, he did not record any of these judgments for subsequent review or evaluation. Tr. 216. In fact, despite his insistence to the contrary, Dr. Michelson made clear on cross-examination that he cannot now determine whether or not his staff followed his instructions *1398 in the coding process because he does not know what instructions he gave. Thus, for example, on the question of how to code the phrase "prepares progress reports", the following exchange took place:

- Q. Do you know whether in every case where your staff saw the language "prepares progress reports," they coded it as communication?
- A. No, I only know they either did or didn't.
- Q. In fact, you are not sure as you sit here today whether it was coded at all, isn't that correct?
- A. If it was coded at all, either as zero or one, that is, it was consistently handled upon instruction from me but I can't recall that instruction or most of them.
- Q. You can't as you sit here tell us today whether any particular instruction was followed or not, isn't that correct?
- A. Oh, no, we could look at volume 4 of the supplement [to the November 1, 1989 report] and find out exactly how this was coded and then the question is whenever we see these records, prepares program [sic] reports, will it be coded the same. It will be coded the same but I can't tell you which way.

Q. And you can't tell what instruction was given?

A. Yes, I can tell. If we look at the supplement, we will see whether it was or was not coded and that is the instruction that was given.

Tr. 216-17. In other words, because he failed to record instructions to his staff, Dr. Michelson has no way to determine what a particular coding instruction was other than to review the results of the work of his staff; but he also has no way to verify that his staff followed that instruction other than to review the same information. In order to investigate, then, whether Dr. Michelson's staff consistently followed the instructions that he gave them on certain "judgment calls", it becomes necessary to assume that Dr. Michelson's staff consistently followed the instructions that he gave them on those matters. Apparently, Dr. Michelson does not even entertain the possibility that his staff may have consistently misunderstood or misapplied his directions on a given question. In any event, without records of those directions, it is not possible to assess the quality of such codings by Dr. Michelson's staff—even though Dr. Michelson acknowledged that the results of the coding process depend in part on who does the coding. Tr. 237. Indeed, Dr. Michelson himself concedes that, without those records of his coding rules, there is no way to know that any other expert could replicate—and, therefore, verify—his study. Tr. 235-36.

Furthermore, the court found that the manner in which Dr. Michelson—or, more precisely, his staff. 189-90—coded certain specifications to be of dubious legitimacy. For example, the job specifications for Nassau County police officers indicate that an incumbent must "develop skill in the use of firearms." Tr. 175. Accordingly, Dr. Michelson did not code this job for the ability to use a gun but for the ability to learn to use a gun. Tr. 178. However, again following the precise language of the job specifications, Dr. Michelson did code supervisory police positions for the attribute of ability to use a gun. Tr. 191. In other words, on Dr. Michelson's model, a police officer who patrols the streets of Nassau County is deemed to have the attribute of the capacity to learn to use a gun, but his captain at headquarters is recorded for the attribute of active use of a gun. Insofar as Dr. Michelson acknowledged that he and his staff had at times made subjective judgments in the coding process, the court cannot help but wonder whether a modicum of common sense in instances such as this might have produced a more "exacting model" of the Nassau County salary system.

Next, Dr. Michelson testified that he had used only two sources of data: job specifications and personal

information about employees. Thus, other than sex, seniority, and salary, Dr. Michelson claimed to have considered nothing that was not contained in a Nassau County job specification. Tr. 160-61. But Dr. Michelson was not consistent in the application of this methodological rule: At times, he coded his own inferences about the characteristics of a job *1399 rather than the language of the specification; at other times, he coded phrases of effectively identical significance with different values. Thus, a job title might receive the variable for stress—even if the word "stress" appears nowhere on the job specification. Tr. 185. And, when a career line is considered, such a variable as "stress" may appear in some job codings but not in others. Tr. 246–47. Alternatively, Dr. Michelson coded differently the phrases "receives training" and "ability to learn"—because, as he testified, he inferred a significant distinction between the two. Tr. 224-226. And, at times, Dr. Michelson simply did not coded certain phrases in job specifications that clearly have significance as to the setting of salaries. Tr. 209-10 (phrase "ability to carry out oral and written instructions" coded—and, therefore. not evaluated—as a salary determinant). Such selective departures from his stated methodology undermine the confidence that any reasonable person can have in his conclusions—particularly if one accepts Dr. Michelson's own characterization of his study as an exercise in the coding of key words of uncertain reliability. Tr. 251.

Furthermore, to the extent that he did not stray beyond the four corners of the job specifications, Tr. 267-70, he failed to account for obvious and important influences on the salaries of particular job titles. For example, Vito Competiello, a participant in the Cresap process, testified that the members of the Nassau County job evaluation team had considered such non-Cresap factors as the working conditions of a particular job, Tr. 322-23; and Adele Leonard, the Executive Director of the Civil Service Commission throughout the entire period relevant to this action, indicated that working conditions affect decisions as to salary upgrades, PX 1096 at 9. But Dr. Michelson's study took no account of this aspect of a particular job title or career line. Thus, Dr. Michelson coded the job specification for the title of Morgue Attendant I with the variables that captured these factors: "graduation from high school", "use of electric saw", and "direct supervision." Tr. 213-14. Dr. Michelson disregarded entirely the fact that a morgue attendant works with—and on—cadavers. Tr. 214. The court does not doubt that such circumstances of the job were carefully considered in the setting of salary grades during the Cresap process and continue to influence salary grade determinations. Tr. 325, 365-66; see also PX 1096 at 9 (testimony of Adele Leonard as to working conditions of morgue attendant: "It's never been too desirable, bring a

body in and see the maggots running out of it."). Similarly, when Dr. Michelson coded the job description for the job of assistant detective investigator, he did not assess the fact that an incumbent of this job would be responsible for confidential information. Tr. 215. Dr. Michelson's model took no account of these important considerations—such as whether a career line required work indoors or outside, whether it required work in a prison or underground, or whether it required working with the living or the dead.

Dr. Michelson's multiple regression analysis also did not account for the fact that salaries in Nassau County are affected by the collective bargaining process—even though Dr. Michelson himself acknowledged that such negotiations are an "influence" on Nassau County salaries. Tr. 147; see also Tr. 145. In fact, Dr. Michelson revealed on cross-examination that he knew nothing about the collective bargaining process in Nassau County other than that it affects the salaries of the jobs which his model was intended to study:

Q: Do you strive to have your model reflect the real world as close as you possibly can?

A: Yes.

•••

Q: Dr. Michelson, do you understand that over the last 22 years, salaries in Nassau County were arrived at through a collective bargaining process?

A: At the dollar level, yes, it's my understanding.

Q: Are you aware that there have been a series of collective bargaining agreements that have governed the relationship *1400 between the CSEA and the County of Nassau throughout the period?

A: Yes, there are collective bargaining agreements.

Q: Have you ever examined any of those collective bargaining agreements?

A: No.

Q: Did you ever ask for any information about the collective bargaining process in Nassau County?

A: No.

Q: Did you ever receive any information as to how the collective bargaining process impacts on salaries in Nassau County?

A: No.

Tr. 144–45. And the evasiveness with which Dr. Michelson ultimately indicated that he had failed entirely to include the collective bargaining process among the dozens of independent variables in his multiple regression analysis is telling not only of the obvious limitations on his study but also of the quality of his testimony generally:

Q: So as you sit here today you have absolutely no idea of the impact of collective bargaining negotiations on the county's wage setting, is that correct?

A: No, that is completely incorrect.

Q: Isn't the collective bargaining process a variable that could affect the real world model of salaries in Nassau County?

A: I can't answer that question as phrased.

Q: You didn't examine any variable for collective bargaining in you model, did you?

A: Well, effectively, I did.

THE COURT: Dr. Michelson, with all due respect, sir, I'm having difficulty understanding your answers. Did you or did you not consider the collective bargaining process as one of the variables? ...

THE WITNESS: There are two things.

THE COURT: Let me ask the question again[.] [I]f you can answer it yes or no, please do so. Did you consider the collective bargaining process as a variable in the study which you've conducted?

THE WITNESS: No.

THE COURT: Do you regard it as a variable in determining the real world status of wage determinations?

THE WITNESS: I regard it as an influence, of course.

THE COURT: Is influence the same as variable?

THE WITNESS: No, I don't know how to measure it as a variable.

THE COURT: Doesn't a variable have an influence on the result of your study?

THE WITNESS: I hope so but I have to be able to measure.

THE COURT: Do[] variable and influence mean

essentially the same thing [.] That is, if you introduce a variable, it influenced the result, is that right?

THE WITNESS: Yes.

Tr. 146–48. In other words, although Dr. Michelson was aware of the critical role that the collective bargaining process has had in the Nassau County compensation system, he did not undertake even a brief investigation of it, and he deliberately omitted the results of that process from his study because he did not "know how to measure it as a variable." With such a significant—and, indeed, *intentional*—omission from his study, this court cannot conclude that Dr. Michelson's multiple regression analysis is a reliable study of salary determinants in Nassau County job titles.

Along the lines of omitted salary determinants, the defendants sought to make much of the fact that Dr. Michelson had included no variable to represent the number of hours that Nassau County employees work each week. Tr. 150-51. In fact, Dr. Michelson was completely unaware until just a few days before the start of trial that employees in different Nassau County departments work 33 and three-quarters hours each week or 35 hours each week or 40 hours each week. Tr. 153. However, the evidence produced later in the trial unequivocally established that the number of hours worked each week in no way affects the salaries of County employees: A clerk in one department who works 35 *1401 hours each week is paid the same salary as a clerk in another department who works 40 hours each week. Tr. 1442; see also Tr. 326 and 936-37. For this reason, the omission of a variable to represent the length of County work weeks-as well as Dr. Michelson's ignorance of the fact of different work weeks-is of absolutely no significance.

What is of significance—indeed, of great significance—is the complete failure of Dr. Michelson's study to account for the effect of market forces on the present salary disparity in Nassau County. Dr. Michelson plainly admitted that he did not introduce any variable into his regression analyses to represent market salaries. Tr. 109-10. In fact, Dr. Michelson testified that he could not conclude that the forces of the market do not have an effect on Nassau County salaries. Tr. 110. This omission severely undermines the value of Dr. Michelson's report: Although the court found that there is no satisfactory evidence that the County relied on market salary information in the execution of the Cresap process to assign salary grades to particular jobs, the court does find that there is substantial evidence of reliance on the market by the County (and by the plaintiffs) since the end of Cresap. The two means through which salary grades are

reviewed and modified rely heavily on labor market information. First, the Civil Service Commission regularly evaluates upgrade requests by gathering information from nearby communities as to the "going rates" for particular job titles. Tr. 914-15; see also Tr. 1852. Second, both the County and the plaintiffs amass labor market data every time they negotiate collective bargaining agreements. Tr. 1314-17, 1377-79, and 1389. Even the many Nassau County titles that have today the same salary grade they were assigned in 1967 have been affected by this labor market data: That is, the data collected by the County and by the plaintiffs have been considered in decisions not to change original salary grades—as well as in decisions to change actual salaries through such means as above-step hiring or mass promotions. Because salary grades for individual job titles are regularly upgraded—or left unchanged—on the basis of such information, this court must conclude that the market is among the principal factors that affect salaries in the post-Cresap compensation system. Accordingly, the failure of Dr. Michelson even to entertain a market variable in his study effects a serious undermining of confidence in his conclusions.

Moreover, one of the defendants' expert witnesses, Dr. Haworth, testified credibly and persuasively that the sex-related salary differential identified by Dr. Michelson is reduced to virtual insignificance when a market variable is introduced. Tr. 2009. Dr. Haworth used a data base similar to that of Dr. Michelson, Tr. 1885-96-with necessary and appropriate modifications such as the elimination of job classes for which no market data were available, Tr. 1895—and confirmed, as a threshold matter, that the information on job specifications is correlated to salary and also that there is indeed a gap between the salaries of men and women in Nassau County that is not explained by job specifications alone. Tr. 2008; see also DX KKK-12. When a market variable was added to the regression analysis, however, Dr. Haworth found that "there is a difference in men and women's salaries that is either [a] very small negative and not significantly different from zero or that is positive in favor of women." Tr. 2009. She also found that Dr. Michelson's data set—predicated as it was solely on the features of job specifications—was a poor predictor of actual market salaries in the communities surrounding Nassau County. Tr. 2009–10.

In the final analysis, the court is unable to give any weight to the report and the testimony of Dr. Michelson. His study reveals serious methodological flaws: He failed to record significant decisions in his coding process; indeed, combined with the fact that he claimed to be unable to recall instructions to his staff, that failure to preserve his methodology frustrated this court in attempting to assess

the trustworthiness of his "exacting model." Further, he selectively departed from his own "rules" as to coding job specifications; he made trivial terminological distinctions in *1402 some cases and failed to evaluate his work against common sense in others. Moreover, because Dr. Michelson intended his model to conform only to Nassau County job descriptions and not to "reality", Tr. 228-29, he took no account of such salary determinants as the collective bargaining process and conditions—the latter of which is a factor that employees of the Nassau County Civil Service Commission testified was significant in the Cresap process and has been significant ever since. Finally, Dr. Michelson's multiple regression analysis, with over seventy independent variables, completely ignored the forces of the market despite the fact there was ample testimony as to the significance of the market in salary decisions since the end of the Cresap process. The results of Dr. Haworth's refinements to Dr. Michelson's regression analysis confirm that the labor market is a determinant of salary in Nassau County of which Dr. Michelson should have taken account. Her analysis also demonstrates that the labor market variable may well explain the salary differential that Dr. Michelson attributed to the sex dominance of job titles and of career lines. For all these reasons, the court finds that Dr. Michelson's testimony is not probative of discriminatory intent.

2. Dr. Haworth's Report

Dr. Haworth also conducted two studies on behalf of the defendants in an attempt to investigate whether current salary decisions in Nassau County are adverse to women and also to investigate how current salaries for men and women in Nassau County compare to salaries in the local and national labor markets. Tr. 1880-83. The results of Dr. Haworth's study—results found by this court to be both reliable and persuasive—undermine any notion that the present Nassau County compensation system is discriminatory with respect to women in female-dominated jobs.

For her studies, Dr. Haworth used a data base that was essentially a subset of Dr. Michelson's data base and similar to the data base of 101 job titles derived by Dr. Jones. Tr. 1896. Among other modifications, Dr. Haworth eliminated from Dr. Michelson's data base all job titles of salary grade 15 or greater—simply because labor market data were unavailable for these jobs. Tr. 1895. She also eliminated all jobs for which the incumbents are not represented by the plaintiff CSEA; this included the elimination of all police titles and all titles of personnel at

the Nassau County Community College. Tr. 1895. In order to correlate Nassau County jobs to jobs in the national market, Dr. Haworth used the Standard Occupational Classification Manual. Tr. 1904. Dr. Haworth collected national labor market data for her study, and she also used many of the local labor market data collected by Dr. Jones in his evaluation of Dr. Treiman's "training and experience" study. Tr. 1907 and 1942–43.

Dr. Haworth first analyzed the changes in the female composition of the Nassau County workforce between 1980 and 1986. Tr. 1910; DX GGG-1 at 14. She found that there was a substantial increase in the number of women during that period. She also found that changes in female composition of five percent or more were more often increases in the female composition of jobs than decreases. Tr. 1911. Further, after analyzing the 26 Nassau County job titles in her data base for which there had been changes of five percent or more in female composition between 1980 and 1986, Dr. Haworth found that these changes had the effects of increasing the number of female-dominated jobs in Nassau County and of increasing the number of mixed jobs in Nassau County—but not of increasing the number of male-dominated jobs in Nassau County. Tr. 1915-16; DX GGG-1 at 17.

However, Dr. Haworth also evaluated the salary range midpoints for Nassau County jobs, and she found that Nassau County jobs that had increases in the percentage of female composition during this period also had higher relative increases in salary than did those jobs that did not have increases in the percentage of women. Tr. 1930; DX GGG-12. This was true both for those job titles that did not have salary grade changes between 1980 and 1986 and for those jobs that were regraded. Tr. 1932-35. In other words, Dr. Haworth *1403 found that between 1980 and 1986, as jobs acquired higher percentages of female employees, the job titles themselves became better compensated. Tr. 1937. Dr. Haworth concluded that the dynamics of the salary-setting process in Nassau County—whether it be through collective bargaining or through upgrades—was not adverse to jobs that had increasingly larger female representation. Tr. 1932.

Finally, Dr. Haworth compared these findings for Nassau County to the labor market data she had assembled for the national and local markets. Tr. 1938; DX GGG–13; DX GGG–14. Dr. Haworth found no pattern adverse to women in her comparisons with the local labor market. Tr. 1951–52; DX GGG–14. And, as to the national labor market, Dr. Haworth found that female-dominated jobs have higher salaries in Nassau County than do female-dominated jobs in the nation as a whole; however,

she found that male-dominated jobs have lower salaries in Nassau County than they do in the national market. Tr. 1948; DX GGG–13. Ultimately, Dr. Haworth concluded that the phenomenon of male-dominance and of female-dominance of job titles in Nassau County was not significantly different from that which is found in the local and national labor markets, that the Nassau County salary-setting process between 1980 and 1986 has not been adverse to jobs with increasing female composition, and that she could find no statistical evidence of sex discrimination in the Nassau County compensation system. Tr. 2030–32.

The court finds Dr. Haworth's report and testimony to be reliable and credible. The methodology of her study was clearly conceived and consistently followed. The court found the procedures by which she defined her data base and gathered her labor market information to be straightforward and sound. Unlike the plaintiffs' experts, Dr. Haworth was candid about the limitations of her procedures, and she incorporated cautions about those limitations into her findings. Throughout the course of her testimony, Dr. Haworth was direct and credible in her answers. Accordingly, the court gives great weight to her conclusions.

Thus, the court finds that the conclusions of Dr. Haworth undermine any inference of discriminatory intent by the County of Nassau that the plaintiffs would have this court draw from the present status of the County compensation system. Although Dr. Haworth did not restrict her analysis to jobs that were female-dominated, she persuasively demonstrated that as job titles take on higher percentages of women, the pay for those jobs increases relative to other jobs. This fact is obviously inconsistent with the argument of the plaintiffs that the County discriminates against women in female-dominated jobs. Furthermore, Dr. Haworth demonstrated that salaries for male-dominated, mixed, and female-dominated jobs in Nassau County parallel those found in the communities that surround Nassau County-and that they are more favorable to women than those found in the nation as a whole. As the court has indicated already, there is extensive evidence in this record to show that Nassau County gives great weight to these labor markets in its current compensation decisions. The findings of Dr. Haworth demonstrate that this labor-market reliance of the County has not adversely affected the plaintiffs in this action.

3. Conclusions as to Statistical Analyses

On the whole, then, the statistical analyses of present Nassau County salaries do not demonstrate that the County has discriminated—or that it continues to discriminate—against female-dominated jobs. The only statistical report to support that proposition—that is, the report of Dr. Michelson—is unreliable and inadequate. Rather, the evidence reveals that the apparent sex-related disparity in Nassau County is driven by the forces of the labor market—forces to which Nassau County gives no compensation determinations. weight in Furthermore, the salary-setting process has, at least between 1980 and 1986, benefitted those jobs that have increased their total percentage of female incumbents in a manner plainly inconsistent with *1404 intentional sex discrimination. For all these reasons, and on the basis of the report of Dr. Haworth, the court finds that statistical analyses of Nassau County salaries do not support an inference of sex discrimination against women in female-dominated job titles.

D. Other Evidence Relevant to Discriminatory Intent
Other evidence introduced by the plaintiffs to demonstrate
discriminatory intent on the part of Nassau County
included evidence concerning sex segregation of Nassau
County job titles and anecdotal testimony as to the animus
of certain County officials. On the question of intent, the
defendants presented evidence as to the bona fides of the
Nassau County affirmative action plan and about the
dynamics of the collective bargaining process between the
County and the plaintiff CSEA.

1. Sex Segregation of County Job Titles

The plaintiffs undertook to demonstrate that job titles in Nassau County have been segregated by sex since 1967 and that this sex segregation is attributable at least in part to intentional discrimination by Nassau County. The plaintiffs did not attempt to show that this alleged "steering" of men into male-dominated job titles and of women into female-dominated job titles was in itself a violation of Title VII. Rather, the plaintiffs sought by this evidence to support their claims of intentional discrimination in compensation.

As a threshold matter, the court notes that there is no satisfactory evidence in the record to support the plaintiffs' quantification of sex segregation in the year 1967. Their proof in this regard consisted solely of Dr. Treiman's data as to the 1967 sex composition of job

titles in Nassau County. PX 1074 and PX 1075. As noted above, however, the means by which this information was assembled are at least open to question, and the court cannot rely on them with confidence. As to more recent sex segregation, it is beyond dispute that most Nassau County employees are in either female-dominated or male-dominated job titles. Tr. 53 and Tr. 2033–34. Indeed, evidence produced by the defendants' experts indicates that the Nassau County work force is more sex segregated than is the national work force. DX GGG–1 at Table 8A. However, there is no persuasive indication that the sex segregation of County jobs as it exists today was in any manner effected by the defendants.

The plaintiffs established that the County has, in a very few instances in the past, restricted particular job titles either to men or to women. Thus, for example, the jobs of domestic workers and of custodial workers were formerly sex segregated. See PX 278, PX 279, and PX 285; Tr. 412. There have also been male-only clerical jobs, PX 565; and such positions as police officers, correction officers, and probation officers have been effectively closed to women as late as the 1970s. PX 1096 at 22-23 and 34-35; Tr. 1290 and 1491. Since those formal barriers were eliminated, however, the County has not directed men and women to particular job titles. Tr. 473-74 and 1271-72. Rather, the County maintains an open system for its competitive and non-competitive positions. Tr. 1233, 1249, 1271-72, and 1279. Indeed, the fact that women from the female-dominated caseworker career line have moved in great numbers to the previously male-dominated—but predominantly now female—probation officer career line readily illustrates the absence of deliberate sex segregation in the County today. Tr. 452, 1276-78, and 1412.

Indeed, the better explanation for the existing sex segregation in Nassau County job titles is that which was agreed upon by all the experts who testified in this case: that men and women do not, on the whole, seek the same positions. Thus, Dr. Michelson testified that "females offer themselves to work on the average [in] a different set of jobs than men offer themselves to work...." Tr. 167. Similarly, Dr. Treiman testified that socialization is a significant factor in the establishment of de facto sex segregation in the work place. Tr. 868–79. And Drs. Jones and Haworth indicated that such individual choices by employees as to what jobs they will apply *1405 for—choices that are often correlated to sex—obviously constrain the extent to which an employer can integrate particular job titles. DX ZZZZ-6 at 50–51; Tr. 1983–84.

Accordingly, the court finds that the sex segregation in Nassau County job titles—the existence of which the plaintiffs have certainly demonstrated—is not the product

of deliberate efforts by the County to steer or to direct men into male-dominated jobs or women into female-dominated jobs. Rather, it is the product of sex-related preferences on the part of the Nassau County employees themselves. As such, the mere fact that most Nassau County employees work in job titles that are either female-dominated or male-dominated does not in itself support an inference of discriminatory intent.

2. Anecdotal Evidence of Animus

Although the plaintiffs in opening remarks promised significant anecdotal evidence in order "to bring [the statistical evidence] to life," Tr. 35, they ultimately presented very little testimony by individuals that was significantly probative of the question of discriminatory intent on the part of Nassau County or of its officials. Six of these witnesses testified only that they thought their own job titles were under-compensated relative to other job titles, that the duties of their job titles merited upgrades, or that recruitment and retention problems in their job titles were severe. Thus, Linda Kelly, a police communications operator, testified as to the duties entailed by her job title. Tr. 1085-1148. Beth Luttinger testified that the job duties of the social welfare examiner position have become more complex over the years but that the position has not been upgraded. Tr. 507–14. Susan Duffe testified that upgrades and other salary increases have not alleviated a shortage of registered nurses. Tr. 564-72. Bryn Catapano testified as to her job duties as an assistant rehabilitation counselor at the Nassau County Correctional Center. Tr. 948-51. Barbara Bledsoe testified about her job as a nurses' aide and about the efforts of those in her job title to secure a salary upgrade. Tr. 1020-1024. And Patricia Madsen testified as to the job duties of a police detention aide. Tr. 1158–76.

The testimony of each of these six witnesses is relevant to particular issues in this action: The evidence provided by Linda Kelly, of Bryn Catapano, and of Patricia Madsen is relevant to the individual claims under Title VII and under the Equal Pay Act; and the evidence provided by Beth Luttinger, Susan Duffe, and of Patricia Madsen is relevant to the response of the County to requests for upgrades in male-dominated and female-dominated job titles. As such, the testimony of each of these six witnesses is considered in other junctures of these findings. But none of these six witnesses testified to specific instances of conduct by Nassau County officials that are probative of discriminatory animus on the part of the defendants.

Three other witnesses for the plaintiffs, however, did so testify. Ola McCoy testified that her supervisor at the Department of Social Services had bluntly told her that she was ineligible for a particular position because he did not want to see his "ladies pushing a hand truck with boxes." Tr. 958. Alice Groody testified that she had been told in the 1970s that certain jobs in the Nassau County Department of Assessment were strictly "male titles." Tr. 548-49. Indeed, a rather senior member of that department remarked to her that "[w]omen should be barefoot and pregnant" and that "they did not belong in the work force." Tr. 549-50. And, finally, Sondra Adolf testified that the Fire Marshal had indicated to her that, for female employees, the level of compensation was less important than their availability to care for their children. Tr. 1015.

Obviously, these items of anecdotal evidence are relevant to the question of any animus toward women in Nassau County. However, the testimony of each of these women is of limited probative value. First, the testimony of Ola McCoy revealed nothing more than sexism on the part of one supervisor in the Department of Social Services; it does not imply a sexist animus on the part of the County as a whole. Second, *1406 the testimony of Alice Groody concerned stale incidents from as far back as ten years before this action. Third, the court frankly found the testimony of Sondra Adolf to be vague and not entirely credible. See Tr. 1016-20. Even so, if the testimony of all three women were taken at face value and considered collectively, the plaintiffs would only have adduced evidence of ad hoc sexist remarks by several supervisors in the County; that is, evaluated at their maximal worth, these items of evidence are only minimally probative of systemic discrimination against women female-dominated positions.

3. The County Affirmative Action Plans

The County introduced evidence as to the existence of its long-standing affirmative action plan in an effort to negate any showing by the plaintiffs of discriminatory intent. Nassau County has had several affirmative action programs since 1972, PX 83 at 5, and it has long assembled data on the race and the sex of its employees as required by the Equal Employment Opportunity Commission. See, e.g., PX 2. The former chairman of the Nassau County Affirmative Action Coordinating Committee, Russell Service, testified that increasing the representation of women in County work titles was among the goals of the affirmative action programs. Tr. 967–68. However, the best efforts by the County to

recruit women for County job titles have been extended in compliance with consent decrees. Tr. 971–72, 984, 1291–92, and 1828–34. Furthermore, attempts by the Affirmative Action Coordinating Committee to persuade individual departments to set goals and timetables for the hiring of women have been ignored—and forgotten. Compare Tr. 969–71 with PX 81. Indeed, the authority of the Affirmative Action Coordinating Committee appears to have been limited by the County to convening meetings and to publishing reports.

Although the state regulation of hiring for competitive positions forecloses many direct efforts to increase the number of women in particular job titles, the County has not specifically undertaken to recruit women for non-competitive positions or for labor positions. Tr. 979–82. Nor has the County particularly encouraged women to sit for competitive examinations in career lines for which female representation is low. Tr. 1291–92; but see PX 1096 at 50–51. Thus, the net increase in the female composition of Nassau County job titles about which Dr. Haworth testified appears to be less the product of affirmative efforts by the County and more the result of larger numbers of women entering the work force.

The court finds that the affirmative action programs of Nassau County neither support nor undermine a finding of discriminatory intent. Although the County appears long ago to have removed formal barriers to women in its job titles, it has done little since then to encourage women to seek employment in those areas. Such a failure to encourage women is not, of course, synonymous with intentional discrimination. Still, the mere existence of these programs cannot be said to negate discriminatory intent: The County has established an Affirmative Action Coordinating Committee, but it has granted to that body neither the resources nor the authority to undertake genuinely affirmative action. Tr. 969. In other words, although the apparent indifference of the County to the ineffectiveness of the Affirmative Action Coordinating Committee does not constitute intentional discrimination by the defendants, neither is it inconsistent with such discrimination. For this reason, the court finds that the evidence as to the affirmative action programs in Nassau County is not probative of the central issue in this matter.

4. The Collective Bargaining Process

The defendants also introduced evidence concerning their good faith participation in the collective bargaining process with the plaintiff CSEA. Such negotiations have been central to the compensation system in Nassau

County since 1969. Tr. 1319. The collective bargaining process effects "across-the-board" pay increases, pay increases for specific groups of job classes, and upgrades for particular titles. Tr. *1407 1310-11 and 1318-19. The County does not adopt negotiating positions on the basis of the sex of incumbents of particular jobs. Tr. 1323-24; DX ZZZ-2. And, at least until the advent of this litigation, CSEA never advanced a sex-related wage proposal during the collective bargaining process. Tr. 1324-27 and 1393-95. Although the plaintiffs attempted to demonstrate that the County grants upgrades to labor-management male-dominated iobs during negotiations far more frequently than it does to female-dominated jobs, Tr. 1362-63 and 1372-76, it is clear that these results have been affected by negotiation strategies adopted by CSEA in contemplation of this litigation. Tr. 1410-11 and 1414-15. On the whole, the court finds ample evidence that the County has consistently engaged in good faith collective bargaining with the plaintiffs and that this conduct by the County is inconsistent with any inference of discriminatory intent as to the compensation of Nassau County employees.

E. Discrimination in Specific Job Titles

On the first day of trial, the plaintiffs indicated that they would present evidence of violations both of Title VII and of the Equal Pay Act as to three specific job groups: police communications operators, police detention aides, and clerical workers at the Nassau County Correctional Center. At the close of proof, the plaintiffs informed the court that they sought relief under the Equal Pay Act only as to one named plaintiff-Linda Kelly, a police communications operator. Plaintiffs' Post-Trial Brief at 51 n. 76. However, the plaintiffs also indicated that they would continue to seek Title VII relief for all class members who were incumbents in these three job groups. Nonetheless, the plaintiffs seek to establish violations of Title VII as to these other two job groups through the standards of the Equal Pay Act. Consistent with the position of the plaintiffs, then, the court considers the job of police communications operator both as to the Equal Pay Act and as to Title VII; but the other jobs are considered ultimately only as to Title VII.

1. Police Communications Operators

The plaintiffs attempted to show that the job skills, efforts, and duties of Nassau County police communications operators are substantially similar to

those of Nassau County fire communications technicians. Employees in these positions work in essentially identical conditions, and both positions involve the receipt of emergency and non-emergency telephone calls, the processing of relevant data, and the dispatching of equipment and of personnel. However, the scope of responsibilities and of the requirements for these two positions differ in significant respects.

The position of police communications operator was established in 1973; it is female-dominated, and it has a salary grade of seven. Tr. 1086–93. The position of fire communications technician was also established in 1973; this position has never had a female incumbent. Tr. 1029. The salary grade for the fire communications technician title is nine. PX 672. Neither position has ever been upgraded.

On typical shift, approximately 20 communications operators work under the supervision of two police officers. Tr. 1093 and 1143-44. Police communications operators receive emergency calls, record relevant information, dispatch police personnel, and process requests from officers in the field for further information and communications assistance. Tr. 1093-94 and 1108–14. Other duties include administrative work in support of their primary functions. Tr. 1116-17. However, in any one shift, no single police communications operator performs all these tasks; rather, one employee is assigned to dispatch police officers while the other employees either receive and record in-coming emergency calls, staff the police switchboard, or perform administrative tasks. Tr. 1086 and 1143. The evidence was undisputed that police communications operators receive and process many more calls each day than do the fire communications technicians. Tr. 1810-12.

For the most part, four fire communications technicians work on a shift under the *1408 supervision of one supervisor. Tr. 1036. Fire communications technicians receive in-coming emergency calls, record and process relevant information, and dispatch personnel and equipment. Tr. 1062-67. However, unlike police operators, fire communications communications technicians must integrate these tasks on a regular basis. Tr. 1575–76. That is, each fire communications technician handles any in-coming emergency call alone: The technician must evaluate the nature of the emergency and determine the appropriate response. The technician must dispatch the proper kind and number of fire equipment from one of over 71 volunteer fire departments in Nassau County. Tr. 1061.

Perhaps most significantly, the fire communications technician is required to follow a call through and to

provide coordination of responding units in the field. Tr. 1070. Unlike police communications operators who simply process requests from the field. communications technicians must make continuing decisions as to the activities of different fire departments throughout the course of an emergency. Tr. 1064 and 1070-71; PX 1096 at 53. Thus, the work of a fire communications technician on any given fire may last from 15 minutes to hours or even days. Tr. 1072. In short, unlike the police communications operators, fire communications technicians are not mere dispatchers and transmitters of information; rather, they must make substantial judgments as to the appropriate response to an emergency and they must provide continuing coordination of equipment and of personnel from different volunteer fire departments around the County. Tr. 1049, 1070-71, and 1576-77; compare with 1147-48.

Furthermore, the requirements for these two jobs are significantly different. The police communications operator title requires two years of experience with telephone or radio communications. Tr. 1086. This requirement reflects the fact that the job responsibilities are essentially those of receiving and of transmitting information. By contrast, the fire communication technician title requires five years of experience with a Nassau County volunteer fire department. Tr. 1033. This reflects the fact that the position requires a technician to have thorough knowledge of fire fighting equipment as well as an understanding of the complex system under which the 71 independent volunteer fire departments in Nassau County combine to provide the fire fighting resources of the County. Tr. 1061-63. Indeed, the fact that each fire communications technician has had five years of experience with a Nassau County volunteer fire department obviates the need for significant segments of training by the County. Tr. 1080. By contrast, police communications technicians require substantial "on-the-job" training in order to discharge all the duties of their job title. Compare Tr. 1087 with Tr. 1116.

On the whole then, the differences in responsibilities and in independent judgment required for these two positions—as well as the differences in training and in experience—establish that the job titles of police communications operator and of fire communications technician are not substantially similar. For these reasons, the court finds that a comparison of these two jobs is not probative of the allegations set forth in the amended complaint.

As an additional matter in this regard, the court finds that plaintiff Linda Kelly—although nominally a police communications operator—primarily performs the work of a clerk typist. Tr. 1139–43. Indeed, Linda Kelly is

compensated by the County as a police communications operator even though, for a period of several years through the time of this litigation, the duties that she has specifically requested have been the duties of a lower paid clerical position. Tr. 1139–40. The court finds that the willingness of the County to pay Linda Kelly at the rate of a police communications operator while permitting her to work primarily as a clerk typist is flatly inconsistent with an intent to discriminate against her or against the other female incumbents of the police communications operator job title.

2. Police Detention Aides

The position of police detention aide has only female incumbents; it has a salary *1409 grade of four. PX 672. Police Detention Aides work at police headquarters with certain police officers—known as "turnkeys"—in the processing, detention, care, and transportation of arrestees. The defendants unsuccessfully attempted to show that the responsibilities of the police detention aide are merely to observe the handling of female detainees by the police officers and to protect the County against claims of inappropriate behavior by those officers. Tr. 1836–37 and 1842; PX 1096 at 59. However, the evidence clearly demonstrated that the positions of police detention aides and of police officers who work as turnkeys are substantially similar and that the salary disparity between these two groups is attributable to intentional discrimination.

Police detention aides and turnkeys are both responsible for searching, monitoring, supervising, and transporting detainees; the only significant difference is that police detention aides are responsible for female arrestees and police officer turn keys are responsible for male arrestees. Tr. 1158 and 1161–66. Even the original job description of the police detention aide position plainly belies the claim of the defendants that the primary duty of a police detention aide is "to observe" the handling of female arrestees by male police officers. PX 1085. Furthermore, the turnkeys and the police detention aides perform identical clerical duties. Tr. 1165–66.

The defendants placed much emphasis on the facts that a police detention aide never comes into contact with a detainee without the assistance of a police officer and that police detention aides are not permitted to carry guns (as are police officers). However, neither a police detention aide nor a turnkey is permitted to be alone with a detainee. Tr. 1164 and 1175–76. Because the police department only schedules one police detention aide for

each shift, it is necessarily the case that observance of this rule by a police detention aide requires the presence of a turnkey whenever she deals directly with a detainee: There is simply no one else on duty except male police officers. Tr. 1159. As to the carrying of guns, the difference is trivial because no one—including male police officers—is permitted to carry a gun in the detention area of the police headquarters. Tr. 1168. Finally, the argument of the defendants that the police detention aides have no formal responsibilities for the transportation of female detainees to court is plainly contradicted by the evidence. Tr. 1166–67.

For all these reasons, the court finds that the work performed by the police detention aides is substantially similar-indeed, with the exception of the sex of the detainees, the work is identical—to that performed by male police officers assigned as turnkeys. Further, the County offered no justification for the disparate salaries paid to these employees who perform identical work; indeed, the County has refused in the past to upgrade the job title of police detention aide. Tr. 1168 and 1173-74. These facts—along with the fact that the County created the job of police detention aide as a sex-segregated job title, PX 1085—lead the court to find that the County has intentionally discriminated against these police detention aides in paying them substantially less than male police officer turnkeys while requiring of them equal work. However, it is also plain that this single instance of discrimination with respect to compensation that the plaintiffs have proven does not establish a pattern of discrimination by the County; that is, it does not, without more, establish the broader claims of the plaintiffs in this action.

3. Correctional Center Clerks

Finally, the plaintiffs endeavored to show that the County has discriminated against clerical workers at the Nassau County Correctional Center because it has assigned similar clerical duties to certain correction officers who are better compensated. However, almost all the correction officers who are assigned to perform clerical tasks are also required to devote time to the supervision and to the control of inmates. Tr. 826 and 1480–82; but see 1488. The clerical workers perform none of these duties. Tr. 826 and 1481. Because the correction officers have duties that differ significantly in quality from *1410 those duties they share with clerical workers, the court finds that the jobs are not substantially similar. Further, the plaintiffs have adduced absolutely no evidence that the County has intentionally discriminated against the

female employees in clerical positions at the Nassau County Correctional Center.

CONCLUSIONS OF LAW

I. Title VII Claim of the Plaintiff Class

A. *The Governing Law as Applied* Section 703(a) of Title VII of the Civil Rights Act of 1964 provides in relevant part:

It shall be an unlawful employment practice for an employer—

- (a) ... to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's ... sex ...; or
- (b) to limit, segregate, or classify his employees ... in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee because of such individual's ... sex
- 42 U.S.C. § 2000e–2(a). Thus, Title VII plainly prohibits discrimination in employment on the basis of an employee's sex. A person aggrieved by an unlawful act under Title VII may bring a private action in a federal district court. 42 U.S.C. § 2000e–5(f)(1), (3).

"In most Title VII cases plaintiffs present either a disparate treatment or [a] disparate impact theory of discrimination." Coser v. Moore, 587 F.Supp. 572, 576 (E.D.N.Y.1983), aff'd. 739 F.2d 746 (2d Cir.1984). In this case, the plaintiffs proceed only on a disparate treatment theory. That is, the plaintiffs endeavor to show that the County of Nassau "simply treats some people less favorably than others because of their ... sex...." International Brotherhood of Teamsters v. United States, 431 U.S. 324, 335 n. 15, 97 S.Ct. 1843, 1854 n. 15, 52 L.Ed.2d 396 (1977). In such a case, "[p]roof of discriminatory motive is critical...." Id. See also Lowe v. Commack Union Free School District, 886 F.2d 1364, 1369 (2d Cir.1989) (disparate treatment claim requires proof of "'employer's subjective intent to discriminate' ") (quoting Wards Cove Packing Co. v. Atonio, 490 U.S. 642, 646, 109 S.Ct. 2115, 2119, 104 L.Ed.2d 733 (1989)),

cert. denied, 494 U.S. 1026, 110 S.Ct. 1470, 108 L.Ed.2d 608 (1990); American Federation of State, County, and Municipal Employees, AFL-CIO (AFSCME) v. State of Washington, 770 F.2d 1401, 1406 (9th Cir.1985). The requisite discriminatory intent, however, may "in some situations be inferred from the mere fact of differences in treatment." International Brotherhood of Teamsters, 431 U.S. at 335 n. 15, 97 S.Ct. at 1854 n. 15. See also AFSCME v. Washington, 770 F.2d at 1406 ("In an appropriate case, the necessary discriminatory animus may be inferred from circumstantial evidence."). Nonetheless, what is to be established by the plaintiffs is that the County treated them differently because they are women. California State Employees' Association (CSEA) v. State of California, 724 F.Supp. 717, 731 (N.D.Cal.1989); see also International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) v. State of Michigan, 886 F.2d 766, 770 (6th Cir.1989) (failure of employer to change compensation system must be shown to have been motivated "at least in part by a desire to benefit one sex at the expense of the other").

Because they bring this Title VII suit as a class action that challenges a "pattern and practice" of discrimination by the County, the plaintiffs must establish that sex discrimination is the "standard operating procedure—the regular rather than the unusual practice" of the defendants. *International Brotherhood of Teamsters*, 431 U.S. at 336, 97 S.Ct. at 1855; see also *Coser v. Moore*, 739 F.2d 746, 749 (2d Cir.1984). The "mere occurrence of isolated or 'accidental' or sporadic discriminatory acts" is an inadequate predicate for Title VII liability in such an action. *International Brotherhood of Teamsters*, 431 U.S. at 336, 97 S.Ct. at 1855; see also *1411 Ottaviani v. State University of New York at New Paltz, 679 F.Supp. 288, 297, aff'd, 875 F.2d 365 (2d Cir.1989), cert. denied, 493 U.S. 1021, 110 S.Ct. 721, 107 L.Ed.2d 740 (1990).

The "basic allocation of burdens and order of presentation of proof in a Title VII case alleging discriminatory treatment" have been set forth clearly by the Supreme Court. *Texas Department of Community Affairs v. Burdine*, 450 U.S. 248, 252, 101 S.Ct. 1089, 1093, 67 L.Ed.2d 207 (1981). That is:

First, the plaintiff has the burden of proving by the preponderance of the evidence a prima facie case of discrimination. Second, if the plaintiff succeeds in proving the prima facie case, the burden shifts to the defendant "to articulate some legitimate, nondiscriminatory reason for [the employer's action]".... Third, should the defendant carry this burden, the plaintiff must then have an opportunity to prove by a preponderance of the evidence that the legitimate reasons offered by the defendant were not its true reasons, but were a pretext for discrimination.

Id. at 252-53, 101 S.Ct. at 1093 (quoting McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802, 93 S.Ct. 1817, 1824, 36 L.Ed.2d 668 (1973)). However, the Court has also cautioned that the "prima facie case method ... was 'never intended to be rigid, mechanized, or ritualistic.' " United States Postal Service Board of Governors v. Aikens, 460 U.S. 711, 715, 103 S.Ct. 1478, 1482, 75 L.Ed.2d 403 (1983) (quoting Furnco Construction Co. v. Waters, 438 U.S. 567, 577, 98 S.Ct. 2943, 2949, 57 L.Ed.2d 957 (1978). Thus, once the defendant has presented evidence, the question of whether the plaintiff has established a prima facie case of discrimination is irrelevant: At that point, the court has all the evidence probative of the ultimate factual issue in a Title VII disparate treatment case—whether "the defendant intentionally discriminated against plaintiff." Aikens, 460 U.S. at 715, 103 S.Ct. at 1482 (quoting Burdine, 450 U.S. at 253, 101 S.Ct. at 1093).

After trial, the plaintiffs refined their theory of this case: Their primary argument is that they have established unlawful discrimination under a hybrid of County of Washington, Oregon v. Gunther, 452 U.S. 161, 101 S.Ct. 2242, 68 L.Ed.2d 751 (1981), and of *Bazemore v. Friday*, 478 U.S. 385, 106 S.Ct. 3000, 92 L.Ed.2d 315 (1986). Tr. 2131. The formal holding of *Gunther* was that the Bennett Amendment, 42 U.S.C. § 2000e-2(h), did not restrict liability for sex discrimination under Title VII to claims of "equal pay for equal work." Gunther, 452 U.S. at 180, 101 S.Ct. at 2253. However, Gunther also obliquely indicated that proof of sex discrimination in compensation could be established by a showing that an employer discriminatorily departed from its own wage-setting methodology. Id. at 180-81, 101 S.Ct. at 2253-54; but see id. at 166 n. 8, 101 S.Ct. at 2246 n. 8 ("We are not called upon in this case to decide whether respondents have stated a prima facie case of sex discrimination in Title VII."). Despite the guarded language of Gunther—that is, despite the fact that the Supreme Court stated that the plaintiffs there had indicated they could show the employer's departure from its wage-setting methodology to have been motivated by discrimination—courts have read Gunther as though discrimination is shown by a departure in itself. See Merrill v. Southern Methodist 806 F.2d 600, 607 (5th Cir.1986) University, (characterizing Gunther as case in which "it was shown that the employers unexplainedly departed from objective pay criteria they had adopted"); see also Plemer v. Parsons-Gilbane, 713 F.2d 1127, 1133 (5th Cir.1983) (plaintiffs in Gunther had offered "the clearest evidence of discrimination"). However, Gunther still requires the showing of intentional discrimination by an employer:

All that [Gunther] seems to mean, as the dissenting Justices pointed out, is "that even absent a showing of equal work, there is a cause of action under Title VII when there is direct evidence that an employer intentionally depressed a woman's salary because she is a woman."

*1412 American Nurses' Association v. State of Illinois, 783 F.2d 716, 721 (7th Cir.1986) (quoting Gunther, 452 U.S. at 204, 101 S.Ct. at 2265 (Rehnquist, J. dissenting)); see also AFSCME v. County of Nassau, 609 F.Supp. at 709 (Gunther established that plaintiffs could use evidence regarding departures from wage-setting systems "to prove intentional discrimination"). In any event, Gunther and its progeny certainly make clear that a departure by an employer from a wage-setting methodology with the intention of treating female employees adversely constitutes a violation of Title VII. Such is precisely the discrimination the plaintiffs here sought to prove.

Second, the plaintiffs predicate this action on the holding in *Bazemore* that perpetuation of discrimination committed by an employer before the effective date of Title VII is itself a violation of Title VII. *Bazemore*, 478 U.S. at 397, 106 S.Ct. at 3007. As the Court there indicated: "Each week's paycheck that delivers less to a [woman] than to a similarly situated [man] is a wrong actionable under Title VII, regardless of the fact that this pattern was begun prior to the effective date of Title VII." *Id.* at 395–96, 106 S.Ct. at 3006. Here, the plaintiffs attempted to demonstrate that the County perpetuated its discriminatory activity beyond the effective date of Title VII—and, indeed, through the time of this litigation.

The court concludes that the plaintiffs have failed to establish Title VII liability under Gunther. As indicated above in the findings of fact, the plaintiffs failed to establish that the County had at all departed from its wage-setting methodology. The studies by Dr. Treiman on this question—the "graduate student" exercise and the "training and experience" exercise—are without any weight. Similarly, the ambitious attempt of the plaintiffs to prove selective departures from the Cresap procedures through Exhibit 616-A failed entirely. Exhibit 616-A and the analysis of it by Dr. Treiman do not reveal discrimination by the County during the Cresap process. It follows then, that the plaintiffs have not established the liability of the defendants under Bazemore: Without an initial violation of Title VII, the mere perpetuation of the basic Cresap process does not demonstrate discrimination. Finally, as indicated above, the manner in which the County has responded to requests for upgrades in male-dominated and in female-dominated positions does not even begin to suggest that men and women have been treated differently—much less that they have been treated differently *because* they are men or women. The plaintiffs have thus failed to show by a preponderance of the evidence that the County has intentionally discriminated against women in female-dominated job titles either through the Cresap process itself or through the perpetuation of the Cresap process.

Notwithstanding that after trial the plaintiffs sought to narrow their theory of liability to that of Gunther and of Bazemore, they introduced other evidence to show sex discrimination in the Nassau County compensation system. Thus, quite apart from the Cresap process, the plaintiffs demonstrated intentional discrimination against those women employed as police detention aides; the plaintiffs also introduced evidence of a sexist animus by several County officials. However, discrimination against police detention aides—even considered with the sexist remarks by County officials—does not constitute discrimination against women in female-dominated job titles generally: "Isolated" or "sporadic" occurrences of discrimination do not form a predicate for class relief under Title VII. International Brotherhood of Teamsters, 431 U.S. at 336, 97 S.Ct. at 1855; see also Ste. Marie v. Eastern Railroad Association, 650 F.2d 395, 405-06 (2d Cir.1981). The plaintiffs themselves recognized this to the extent they sought relief for police detention aides independently of their broader class claims.

The plaintiffs also presented the report and the testimony of Dr. Michelson to the effect that there is a sex-based differential in the current salaries of male-dominated jobs and of female-dominated jobs. There can be no doubt that statistical reports such as the multiple regression analysis *1413 of Dr. Michelson may be relevant to a plaintiff's Title VII case. *Bazemore*, 478 U.S. at 400, 106 S.Ct. at 3008. As one court has characterized such proof:

Multiple regression analysis is a relatively sophisticated means of determining the effects that any number of different factors [such as seniority, job duties, or sex] have on a particular variable [such as salary]; ... it may be the best, if not the only, means of proving classwide discrimination respect to compensation in a case ... where a number of factors operate simultaneously to influence salary....

Wilkins v. University of Houston, 654 F.2d 388, 403 (5th Cir.1981).

Nonetheless, statistical proof "is subject to misuse and must be employed with care." Id. "[T]ypical examples" of weaknesses in statistical studies may include "small or incomplete data sets and inadequate statistical techniques." Watson v. Forth Worth Bank & Trust, 487 U.S. 977, 996–97, 108 S.Ct. 2777, 2790, 101 L.Ed.2d 827 (1988). Furthermore, "the omission of variables from a regression analysis may render the analysis less probative than it otherwise might be...." Bazemore, 478 U.S. at 400, 106 S.Ct. at 3008. The Second Circuit has cautioned, however, that a defendant may not simply identify speculative or theoretical shortcomings of a particular statistical report: "We read Bazemore to require a defendant challenging the validity of a multiple regression analysis to make a showing that the factors it contends ought to have been included would weaken the showing of a salary disparity made by the analysis." Sobel v. Yeshiva University, 839 F.2d 18, 34 (2d Cir.1988), cert. denied, 490 U.S. 1105, 109 S.Ct. 3154, 104 L.Ed.2d 1018 (1989); compare with *Bazemore*, 478 U.S. at 400, 106 S.Ct. at 3008 ("Importantly, it is clear that a regression analysis that includes less than 'all measurable variables' may serve to prove a plaintiff's case."). Furthermore, any variables suggested by the defendant to have been improperly omitted and demonstrated to have an effect on a multiple regression analysis must also be shown to constitute "actual determinants of salary." Sobel, 839 F.2d at 35; compare with Bazemore, 478 U.S. at 398, 106 S.Ct. at 3007 ("Petitioners selected these variables based on discovery testimony ... that four factors were determinative of salary: education, tenure, job title, and job performance.").

Finally as to statistical proof, the defendants have attempted to make much of the statement of the Ninth Circuit that "job evaluation studies and comparable worth statistics alone are insufficient to establish the requisite inference of discriminatory motive critical to the disparate treatment theory." AFSCME v. State of Washington, 770 F.2d at 1407; see also UAW v. State of Michigan, 886 F.2d at 769. Although the court agrees that the "weight to be accorded such statistics is determined by the existence of independent corroborative evidence of discrimination," AFSCME v. State of Washington, 770 F.2d at 1407, the court notes that the plaintiffs did not present Dr. Michelson's proof in order to show that jobs of "comparable worth" were paid different salaries by Nassau County. Rather, the plaintiffs undertook to show that there is a measurable disparity in the salaries of female-dominated job titles and of male-dominated job titles and that this disparity could not entirely be accounted for by the four salary determinants of the Cresap process. That is, the plaintiffs attempted to show through Dr. Michelson that the variables yielded by a coding of Nassau County job descriptions could not "explain away" an apparent sex-linked compensation gap. Dr. Michelson did not try to arrive at an inchoate comparison of various Nassau County jobs—such as would be the objective of "comparable worth statistics"; rather, he tried to analyze the actual evaluative procedures used by the County to set salary grades. Accordingly, the attempts of the defendants to dismiss this case on terminology alone—that is, to dismiss this case as nothing more than a "comparable worth" case—are misguided.

Nonetheless, as indicated in its findings of fact, the court does not find that Dr. Michelson's testimony—either alone or as "corroborated" by the plaintiffs' other *1414 items of proof—supports an inference of intentional discrimination. Dr. Michelson's study was incomplete and procedures. predicated on highly questionable Furthermore, his study of current salary disparities omitted a critical factor—the labor market. The defendants demonstrated both that the market has a significant influence on current salaries in the County and that the introduction of a market variable reduced the apparent sex-related disparity to statistical insignificance. Thus, it is on the basis of the grave shortcomings in Dr. Michelson's study-not on the "comparable worth" characterization of the defendants—that the court concludes that the plaintiffs' statistical evidence fails to demonstrate even indirectly any intentional discrimination by the County.

The defendants are correct to argue that their reliance on the market in their compensation system does not give rise to Title VII liability. AFSCME v. State of Washington, 770 F.2d at 1407; see also UAW v. State of Michigan, 886 F.2d at 769. As stated above, the court does not find that the County relied on the market in the setting of salary grades for individual jobs during the Cresap process; however, the court does find that salary decisions since 1967—that is, decisions to upgrade or not to upgrade, decisions as to "across-the-board" pay increases, decisions as to "above-step" hiring and as to mass promotions of employees—have all been predicated in substantial part on the market. The market has animated every aspect of the County compensation system since 1967. Thus, to this extent—and to the extent demonstrated by Dr. Haworth in her report—the court finds that the plaintiffs have failed to demonstrate current Title VII sex discrimination by the County.

Finally, the fact that the County has negotiated in good faith with CSEA as to salaries for County job titles undermines any possible discriminatory intent by the defendants. Forsberg v. Pacific Northwest Bell Telephone

Co., 840 F.2d 1409, 1419 (9th Cir.1988); see also *UAW v. State of Michigan*, 886 F.2d at 770 (granting of collective bargaining "inconsistent with an intent to discriminate against women in predominantly female classes"). Similarly, had the defendants demonstrated the existence of a bona fide and effective affirmative action plan, that too would have weighed in their favor. *Woodbury v. New York City Transit Authority*, 832 F.2d 764, 772 (2d Cir.1987); *Coser*, 739 F.2d at 751. As it is, the characteristics of the County programs on affirmative action do not either support or controvert the plaintiffs' allegations.

B. Conclusions

On the basis of all facts as so found and on the basis of the governing law as applied to those facts, the court concludes that the plaintiffs have not proven by a preponderance of the evidence that the defendants have intentionally discriminated against the members of the plaintiff class-that is, all women who have worked in female-dominated Nassau County civil service jobs since July 28, 1982. Indeed, the only evidence adduced by the plaintiffs that is probative of their claims—the intentional wage discrimination against police detention aides and the isolated instances of sexist remarks by three County officials—does not without more establish a pattern and practice of intentional discrimination by the County. The court thus concludes that the plaintiffs have not proven by a preponderance of the evidence that the defendants have violated Title VII of the Civil Rights Act of 1964 with respect to the class as a whole.

II. Equal Pay Act and Related Title VII Claims Section 206(d)(1) of Title 29 of the United States Code provides in relevant part:

> No employer having employees subject to any provisions of this section shall discriminate, within any establishment in which such employees are employed, between employees on the basis of sex by paying wages to employees in such establishment at a rate less than the rate at which he pays wages to employees of the opposite sex in

such establishment *1415 for equal work on jobs the performance of which requires equal skill, effort, and responsibility, and which are performed under similar working conditions, except where such payment is made pursuant to (i) a seniority system; (ii) a merit system; (iii) a system which measures earnings by quantity or quality of production; or (iv) a differential based on any other factor other than sex....

Thus, the Equal Pay Act mandates "equal pay for equal work" with respect to the male and female employees of an employer who work in "any establishment" of that employer. The defendant in an Equal Pay Act case has the burden of showing that any unequal pay is predicated on a legitimate factor that is not sex-related—such as seniority, merit, or quantity of production. *Corning Glass Works v. Brennan,* 417 U.S. 188, 196–97, 94 S.Ct. 2223, 2229–2230, 41 L.Ed.2d 1 (1974); *EEOC v. Madison Community Unit School District No. 12,* 818 F.2d 577, 588 (7th Cir.1987).

Generally, a violation of the Equal Pay Act generally constitutes as well a violation of Title VII under a disparate treatment theory. *AFSCME v. County of Nassau*, 609 F.Supp. at 708–09. However, as indicated above, a Title VII violation is predicated upon proof of discriminatory intent—an element plainly not required by Section 206(d)(1). Nonetheless, such discriminatory intent may be inferred when an employer fails to explain a demonstrated inequality of pay for equal work. See, e.g., 29 C.F.R. § 1620.27 (proof of violation of Equal Pay Act constitutes proof of violation of Title VII); cf. *Brennan v. Prince William Hospital Corp.*, 503 F.2d 282, 286 (4th Cir.1974), *cert. denied*, 420 U.S. 972, 95 S.Ct. 1392, 43 L.Ed.2d 652 (1975).

"Equal" jobs under Section 206(d)(1) need not be rigorously identical; rather, the plaintiffs must demonstrate that two jobs are "'substantially equal'" as to the requisite "'skill, effort, and responsibility.'" *Usery v. Columbia University*, 568 F.2d 953, 958 (2d Cir.1977) (citing *Hodgson v. Corning Glass Works*, 474 F.2d 226, 234 (2d Cir.1973), *aff'd*, 417 U.S. 188, 94 S.Ct. 2223, 41 L.Ed.2d 1 (1974)). "Skill" denotes the experience, training, education, and ability required in the performance of a job. See 29 C.F.R. § 1620.15(a). "Effort" is the necessary physical or mental exertion, 29 C.F.R. § 1620.16(a); "responsibility" denotes

accountability, 29 C.F.R. § 1620.17(a); and "working conditions" include surroundings and hazards, 29 C.F.R. §§ 1620.18(a). These determinations are to be made on the basis of "actual job performance and content—not job titles, classifications or descriptions..." *Gunther v. County of Washington*, 623 F.2d 1303, 1309 (9th Cir.1979), *aff'd*, 452 U.S. 161, 101 S.Ct. 2242, 68 L.Ed.2d 751 (1981). See also *Marshall v. Building Maintenance Corp.*, 587 F.2d 567, 570–71 (2d Cir.1978). Again, the analysis conducted by a court under the Equal Pay Act is similar to that conducted under Title VII. *AFSCME v. County of Nassau*, 609 F.Supp. at 708.

With respect to the job titles of police communications operator and of fire communications technician, the court notes first that the only Equal Pay Act plaintiff in the job title of police communications operator performs for the most part the work of a clerk typist. Accordingly, a comparison of her "actual job performance and conduct" to those of fire communications technicians does not establish a violation of the Equal Pay Act.

Moreover, even as to police communications operators generally, this court has found that the positions are not "substantially similar" as to the requisite skill and responsibility. Accordingly, the evidence presented by the plaintiffs as to these positions does not support a finding of a violation of Title VII through the standards of the Equal Pay Act. Fire communications technicians are required to have five years of experience as volunteer fire fighters in Nassau County—experience that ensures they will have thorough knowledge of fire fighting techniques, equipment, and procedures. By contrast, police communications technicians are only required to have two years of experience in radio or telephone communications—experience that ensures that they will be skilled *1416 with receiving and transmitting information through the means used by the police department. And these differences of skill and of experience reflect differences in responsibility in the job itself: Police communications operators facilitate the communication of information between the public and the police; fire communications technicians perform an analogous task as to the fire department, but they also provide extensive services in the coordination of fire fighting efforts by the 71 different volunteer fire departments in Nassau County. That is, communications technicians provide as much direction and oversight to fire fighters as they do communication; police communications operators simply receive and transmit information. For these reasons, the court finds that the standards of the Equal Pay Act have not been violated with respect to the job titles of police communications operator and of fire communications technician; accordingly, the court also finds that the plaintiffs have failed to establish a violation of Title VII with respect to the police communications operators.

Second, as to the job titles of police detention aides and police officers serving as turnkeys, none of the police detention aides have agreed to prosecute this claim under the Equal Pay Act. See Plaintiffs' Post-Trial Brief at 51 n. 76. Nonetheless, the plaintiffs have shown a violation of Title VII by means of the proof initially adduced to demonstrate a violation of the Equal Pay Act. The skill actually required by these jobs is similar: Both police detention aides and turnkeys must have the ability to handle, to supervise, and to transport arrestees. The fact that the turnkeys—as police officers—must have more education than police detention aides and must be able to use a gun is plainly irrelevant for the actual requirements of their job as turnkeys. The effort and the responsibility of these different titles is also the same: Both police detention aides and turnkeys must perform the same duties with respect to detainees, and both have the same degree of accountability. Indeed, the only differences between the two positions is that the police detention aides are responsible for female detainees and the police officer turnkeys are responsible for male detainees.

Furthermore, as found above, the difference in salaries between these two positions is plainly attributable to intentional discrimination. When the job of police detention aide was created (as "police detention matron"), it was a title restricted only to women. Since then, the County has refused to upgrade the position to reflect the parallel duties of police detention aides and of turnkeys. At the time of this trial, every police detention aide employed by the County was female, and every police officer turnkey was male. In short, it is clear that the County has maintained a significant disparity between the compensation for police detention aides and the compensation for police officer turnkeys precisely because the incumbents of the former title are women. The plaintiffs have demonstrated this violation of Title VII by a preponderance of the evidence.

Finally, as to the clerical workers at the Nassau County Detention Center, no plaintiff pursues a claim under the Equal Pay Act, and the plaintiffs have not proven the intentional discrimination that is necessary to show a violation of Title VII. The entirety of their proof on this matter rested on the fact that certain corrections officers perform clerical duties. But the court has found that those officers also have inmate-related responsibilities—such as photographing, fingerprinting, and supervising—that are not shared by the strictly clerical employees. The jobs are therefore not "substantially similar" with respect to skills or to responsibilities; further, the plaintiffs adduced no evidence of intentional discrimination in this regard.

Accordingly, the court finds that the plaintiffs have failed to prove their allegations as to these jobs by a preponderance of the evidence.

CONCLUSION

The court has expressed its assessment of the worth of the reports and of the testimony of the plaintiffs' experts. Several *1417 other observations in that regard are, perhaps, peculiarly warranted by this case. An exercise of restraint discourages comment upon the extent to which this litigation exacerbated the emotional involvement of the individually named parties and members of the class in this lawsuit; the extent to which expectations of financial rewards were encouraged and subsequently dashed; the extent to which anxieties were caused by the specter of financial liability; the extent to which enormous expenditures of money and energy were devoted to the prosecution and defense of this lawsuit—possibly at a cost to other, if not higher, values. Comment will be made only upon the expert witnesses without whose testimony litigation such as this cannot succeed.

The testimony of the plaintiffs' experts and the reports they prepared were not the proffers of detached scholars in the fields of economics, statistics, and sociology who were motivated by the sole purpose of assisting the finder of facts with an objective evaluation of the relevant data; rather, they were the proffers of partisans. When expert witnesses become partisans, objectivity and scholarship are sacrificed to the need to prevail. Testimony which is prompted by that need and by that goal may deprive worthy plaintiffs of the relief that may properly be due them, or it may wreak havoc upon the reputation and the financial condition of defendants. A ready solution for the prevention or minimization of such abuses is not at hand. It may be that the only remedy is the vigorous and incisive cross-examination of experts which Wigmore characterized as "beyond any doubt the greatest legal engine ever invented for the discovery of truth." 5 Wigmore, Evidence § 1367 (Chadbourn rev. 1974).

For all the reasons set forth in the findings of fact and in the conclusions of law, the court finds that the plaintiffs have established by a preponderance of the evidence their Title VII claim of discrimination in compensation as to those members of the plaintiff class employed as police detention aides; the court finds that the plaintiffs have not established any of their other claims under Title VII and under the Equal Pay Act by a preponderance of the evidence.

SO ORDERED.

All Citations

799 F.Supp. 1370, 60 Fair Empl.Prac.Cas. (BNA) 465, 60 Empl. Prac. Dec. P 42,004, 123 Lab.Cas. P 35,744, 1 Wage & Hour Cas.2d (BNA) 201