

Filed: May 29, 1996

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 94-2187
(CA-93-297)

Ted J. Smith, III, et al,

Plaintiffs - Appellants,

versus

Virginia Commonwealth University,

Defendant - Appellee.

O R D E R

The Court amends its opinion filed May 10, 1996, as follows:

On page 12, footnote 2, line 3 -- "Appellees' argument" is corrected to read "Appellants' argument."

On page 14, footnote 3, line 13 -- the phrase "as Appellees did" is corrected to read "as Appellants did."

On page 17, continuation of footnote 3, line 1 -- "See ante at 7-8" is corrected to read "See ante at 7."

On page 18, footnote 5, lines 9-10 -- the word "nondiscriminatory" should be italicized.

For the Court - By Direction

/s/ Bert M. Montague

Clerk

PUBLISHED

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

TED J. SMITH, III; GUY J. DEGENARO;
FRANK BELLONI; GEORGE W. RIMLER;
ALLAN ROSENBAUM, On behalf of
themselves and all others similarly
situated,
Plaintiffs-Appellants.

v.

No. 94-2187

VIRGINIA COMMONWEALTH
UNIVERSITY,
Defendant-Appellee.

AMERICAN ASSOCIATION OF
UNIVERSITY PROFESSORS,
Amicus Curiae.

Appeal from the United States District Court
for the Eastern District of Virginia, at Richmond.
Richard L. Williams, Senior District Judge.
(CA-93-297)

Argued: December 6, 1995

Decided: May 10, 1996

Before WILKINSON, Chief Judge, RUSSELL, WIDENER, HALL,
MURNAGHAN, ERVIN, WILKINS, NIEMEYER, HAMILTON,
LUTTIG, WILLIAMS, MICHAEL, and MOTZ, Circuit Judges, and
CHAPMAN, Senior Circuit Judge, sitting en banc.

Reversed by published opinion. Senior Judge Chapman wrote the
opinion of the court, in which Chief Judge Wilkinson and Judges Rus-

sell, Widener, Hamilton and Niemeyer joined. Chief Judge Wilkinson wrote a concurring opinion, in which Judges Russell and Widener joined. Judge Wilkins wrote a concurring opinion, in which Judge Williams joined. Judge Luttig wrote a concurring opinion. Judge Michael wrote a dissenting opinion, in which Judges Ervin, Hall, Murnaghan, and Motz joined.

COUNSEL

ARGUED: Charles Justin Cooper, SHAW, PITTMAN, POTTS & TROWBRIDGE, Washington, D.C., for Appellants. Guy Winston Horsley, Jr., Senior Assistant Attorney General, OFFICE OF THE ATTORNEY GENERAL, Richmond, Virginia, for Appellee. **ON BRIEF:** Michael P. McDonald, Leonard A. Leo, CENTER FOR INDIVIDUAL RIGHTS, Washington, D.C.; Bradley B. Cavedo, Robert A. Dybing, SHUFORD, RUBIN & GIBNEY, P.C., Richmond, Virginia, for Appellants. James S. Gilmore, III, Attorney General of Virginia, Catherine C. Hammond, Deputy Attorney General, Neil A.G. McPhie, Senior Assistant Attorney General, OFFICE OF THE ATTORNEY GENERAL, Richmond, Virginia; David L. Ross, Special Assistant Attorney General, Jean F. Reed, Special Assistant Attorney General, Office of the General Counsel, VIRGINIA COMMONWEALTH UNIVERSITY, Richmond, Virginia, for Appellee. Darrel Long Tillar, Richmond, Virginia; Ann H. Franke, Helen D. Irvin, Michael A. Olivas, General Counsel, AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS, Washington, D.C., for Amicus Curiae.

OPINION

CHAPMAN, Senior Circuit Judge:

Plaintiffs-appellants are five male professors at Virginia Commonwealth University ("VCU") who brought this action under Title VII of the Civil Rights Act of 1964 in the Eastern District of Virginia. The appellants objected to pay raises that VCU gave to its female faculty in response to a salary equity study conducted at the university. Both

parties moved for summary judgment. The district court, finding a statistically demonstrated disparity between female and male faculty salaries, denied the appellants' motion and granted VCU's motion. Because we find that there remains a genuine issue as to material fact, we reverse the district court's grant of summary judgment.

I.

VCU is a state institution of higher learning located in Richmond, Virginia. In the spring of 1988, several groups called on VCU to evaluate its pay structure to determine whether female professors were victims of sex based discrimination in pay. VCU appointed a Salary Equity Study Committee to investigate, and a Salary Equity Advisory Committee to review the findings of the Study Committee.

The Study Committee chose to employ a multiple regression analysis, which compares many characteristics within a particular set of data and enables the determination of how one set of factors is related to another, single factor. The VCU study controlled for such differences as doctoral degree, academic rank, tenure status, number of years of VCU experience, and number of years of prior academic experience. Any difference in salary after controlling for these factors was attributed to sex. The study included only tenured or tenure-eligible instructional faculty at the rank of assistant professor or higher. The first regression study in the summer of 1989 showed a \$1,354 difference in salaries not attributable to permissible factors. A second analysis run in the summer of 1991 showed a difference of \$1,982.

Until the study, the compensation system at VCU had been based on merit alone. A professor was awarded a pay increase after a detailed annual review, if funds were available. Merit factors considered in the annual review were teaching load, teaching quality, quantity and quality of publications, quantity and quality of research, and service to the community (the "performance factors"). The department chair recommended pay raises to the dean, and the dean awarded raises, subject to approval from VCU's Board of Visitors. Salaries vary widely from department to department.

The multiple regression analysis did not include the performance factors because VCU contended that these would be too difficult to

quantify. VCU maintained that indirect performance variables were already included in the study in the form of academic rank, status, and experience. The study also did not take into account a faculty member's prior service as an administrator. Administrators are paid higher wages, and faculty members retain this increase in salary when they return to teaching, thus inflating faculty salaries. Most of the faculty that had previously served as administrators were men. Furthermore, the study did not include career interruptions when measuring academic experience. Finally, the Study Committee worked under the assumption that there was no reason to suspect that female faculty members were less productive on the average than male faculty members.

After the study was completed, VCU approved more than \$440,000 to increase female faculty salaries. These funds were outside of the normal salary process. The pay increases were implemented by the Salary Equity Implementation Committee made up of three women. Female faculty members had to apply for a pay increase by submitting a curriculum vitae or a narrative statement and a vitae. Of the 201 women eligible for salary review, 172 requested it. All women who requested a review received an increase in salary.

After the district court's denial of the plaintiff's motion for summary judgment and the grant of VCU's motion, the plaintiffs filed a motion to alter or amend the judgment. In this motion, the plaintiffs offered the affidavit of expert witness Dr. Fred McChesney. McChesney contended that the performance factors VCU claimed it could not quantify had in fact been included in several studies of various faculty systems, and that the inclusion of the performance factors and other variables was necessary to ensure accurate statistical data. McChesney also contended that there was data to dispute VCU's assumption that women were as equally productive as men. In response, VCU's expert witness, Dr. Rebecca Klemm, stated that she ran several various statistical studies with VCU's raw data and found a salary gap to be consistent with that found in the study. McChesney never conducted a pay study himself. The district court denied the motion to alter or amend the judgment.

II.

This case comes to us on the district court's grant of a motion for summary judgment. A motion for summary judgment should be

granted only where there is no dispute as to material fact and the moving party is entitled to judgment as a matter of law. Shaw v. Stroud, 13 F.3d 791, 798 (4th Cir.), cert. denied, 115 S. Ct. 67 (1994). We review the district court's grant of summary judgment de novo. Tuck v. Henkel Corp., 973 F.2d 371, 374 (4th Cir. 1992), cert. denied, 113 S. Ct. 1276 (1993). The evidence must be viewed in the light most favorable to the non-moving party. Ross v. Communications Satellite Corp., 759 F.2d 355, 364 (4th Cir. 1985).

Under Title VII of the Civil Rights Act, employers are prohibited from discriminating on the basis of sex with respect to compensation. 42 U.S.C. § 2000e-2(a)(1) (1992). On its face, an affirmative action plan that provides for pay raises to only female faculty members violates this provision. However, courts may remedy a violation of § 2000e-2(a)(1) by instituting an appropriate affirmative action plan. 42 U.S.C. § 2000e-5(g)(1). Also, the Supreme Court has determined that in certain circumstances, an employer may voluntarily establish an affirmative action plan without violating Title VII. United Steelworkers v. Weber, 443 U.S. 193, 197 (1979).

According to Weber, an employer's voluntary affirmative action plan is not a violation of Title VII if (1) its purpose is similar to that of Title VII, namely to "break down old patterns" of discrimination; (2) the plan does not "unnecessarily trammel" the rights of those outside the group that it is designed to protect; and (3) it is designed to eliminate a manifest racial or sexual imbalance. Id. at 208; Johnson v. Transportation Agency, 480 U.S. 616, 628-31 (1987). The burden of establishing that an employer's voluntary affirmative action plan violates Title VII is on the plaintiff:

Once a plaintiff establishes a prima facie case that race or sex has been taken into account in an employer's employment decision, the burden shifts to the employer to articulate a nondiscriminatory rationale for its decision. The existence of an affirmative action plan provides such a rationale. If such a plan is articulated as the basis for the employer's decision, the burden shifts to the plaintiff to prove that the employer's justification is pretextual and the plan is invalid.

Johnson, 480 U.S. at 626.

The appellants assert that there is a material question of fact as to whether all the Weber requirements are met. Specifically, whether there was a manifest imbalance in pay between male and female faculty members, and whether the plan instituted by VCU unnecessarily trammelled the rights of male faculty. We agree that there is a material question of fact as to whether there was a manifest imbalance in compensation between the male and female faculty and therefore do not reach the question of whether the plan unnecessarily trammelled the rights of the male faculty.

VCU relied solely on its multiple regression analysis to determine manifest imbalance and to grant the pay increases to the female faculty. The district court also relied on the multiple regression analysis to conclude that VCU had statistically shown an imbalance between male and female faculty salaries. Therefore, the validity of VCU's affirmative action plan depends upon the accuracy of the multiple regression analysis.

The Supreme Court dealt with the use of multiple regression analyses in Bazemore v. Friday, 478 U.S. 385 (1986). In Bazemore, the Fourth Circuit disallowed the use of a multiple regression analysis at trial because the analysis failed to include all measurable factors that could have an effect on the result of the analysis. The Supreme Court reversed, holding that the multiple regression analysis should have been admitted:

While the omission of variables from a regression analysis may render the analysis less probative than it otherwise might be, it can hardly be said, absent some other infirmity, that an analysis which accounts for the major factors "must be considered unacceptable as evidence of discrimination." Normally, failure to include variables will affect the analysis' probativeness, not its admissibility.

Importantly, it is clear that a regression analysis that includes less than "all measurable variables" may serve to prove a plaintiff's case.

Id. at 400 (citation omitted). Bazemore was not decided at the summary judgment stage, however. The Supreme Court held that the

regression analysis was to be considered in light of all the other evidence in the record. *Id.* at 401. VCU cannot rely on Bazemore at summary judgment to establish as a matter of law that the multiple regression analysis was sufficient to determine manifest imbalance.

The appellants question several aspects of the multiple regression analysis. Most importantly is the study's failure to account for the performance factors. Bazemore and common sense require that any multiple regression analysis used to determine pay disparity must include all the major factors on which pay is determined. The very factors (performance, productivity, and merit) that VCU admittedly considered in determining prior pay increases were left out of the study. VCU maintains that it included what it called "crude proxies" for these factors, because, due to their subjective nature, the performance factors are not suitable for statistical analysis.¹ The appellants' expert stated that the study was not valid without adding the performance factors, and that studies performed by disinterested outside researchers "have regularly included productivity measures such as teaching loads and publications," and these studies have shown that productivity has a positive effect on the level of faculty compensation. We find that the questions of whether these proxies for performance were sufficient to account for merit and whether the actual performance factors could and should have been included in the study are questions of material fact.

Also at issue is the fact that the study included male faculty members who had returned from higher paying positions in the VCU administration but kept the higher salary. The study did not account for this salary differential.² This, according to the appellants, leads to

¹ Many of the proxies for performance, such as the grant of tenure and being named departmental head, are one-time occurrences. Professors at VCU, however, continue to receive pay raises based on merit for many years after the grant of tenure or serving as a department head, so these "proxies" are not permanent, conclusive evidence of merit or performance. Merit and performance are not static - but continuing.

² The study included 770 full-time, tenure-track faculty members. Of this group, 187 were female. There were 82 members of the study pool who were paid more because they had held administrative posts. Of this group, 71 were male.

an illogical comparison involving an inflated pool of faculty members; eighty-five percent of the faculty whose salaries were increased because of prior service as administrators were male. An inflated pool can undermine the validity of a statistical study to determine imbalances. Johnson, 480 U.S. at 636; see E.E.O.C. v. Sears, Roebuck & Co., 839 F.2d 302, 322-24 (7th Cir. 1988). Appellants' expert, Dr. McChesney, stated that failure to include a faculty member's status as a former administrator could easily have caused a salary differential that was not attributable to sex. Dr. Henry, the man who designed VCU's regression study, stated that inclusion of this factor in the study would have had an effect on the study, and that if he had had the information, he would have included it. The appellants clearly produced evidence to support a finding that the pool was inflated, and this would skew the result.

The study also failed to measure the amount of time actually spent in teaching as opposed to the lapse of time since the professor began teaching. Once again, the effect of these issues on the validity of the study is a question of material fact.

Given the number of important variables omitted from the multiple regression analysis, and the evidence presented by the appellants that these variables are crucial, a dispute of material fact remains as to the validity of the study to establish manifest imbalance. Therefore, the decision of the district court granting VCU's motion for summary judgment is

REVERSED.

WILKINSON, Chief Judge, concurring:

I agree that the grant of summary judgment must be reversed. It is also important to understand the gravity of what Virginia Commonwealth University did here. VCU implemented faculty pay raises in excess of \$440,000 solely and explicitly on account of the recipients' gender. Members of the opposite gender were completely excluded from the pay raises no matter how deserving they might be. And these measures were justified by a study that neglected to take into account

the very factors of performance, productivity, and merit which had heretofore governed annual salary reviews.

It is not at all difficult to see how policies such as these threaten to poison the university environment. Once groups become convinced of their entitlement to race and gender-based salary increases, they will besiege university administrations with their demands for special treatment, thereby factionalizing the university along the lines of race and gender. Non-beneficiaries will feel slighted, discriminated against on the basis of factors irrelevant to their performance or character. In the end, the university will resemble more an embattled federation of race and gender-based interest groups than an institution dedicated to the unifying spirit of free and open inquiry.

My fine colleagues in dissent contend that a class-based pay raise of this sort is justified because of past discrimination. I do not doubt that much time and money is being spent for regression analyses and disparity studies that purport to justify present race and gender-based preferences. The flawed regression analysis here, however, does not identify past discrimination with anything like the precision necessary to justify measures as drastic as single race or single sex pay raises and promotions. What the regression analysis does do is set society upon a cycle of reparations and recriminations in which individuals are disadvantaged for no other reason than their membership in a disfavored race or gender.

The recognition of this dangerous path is nothing new. Exactly one hundred years ago, Justice John Marshall Harlan realized that "[o]ur Constitution is color-blind, and neither knows nor tolerates classes among citizens," and that the "arbitrary separation of citizens" has "no other result than to render permanent peace impossible, and to keep alive a conflict of races, the continuance of which must do harm to all concerned." Plessy v. Ferguson, 163 U.S. 537, 559, 561-62 (1896) (Harlan, J., dissenting). Despite the lesson of Plessy, we find ourselves again at the crossroads of 1896, anxious to create castes of citizens based on inconsequential characteristics.

Ideas--like our Constitution, itself a collection of ideas--transcend the boundaries of race and gender. It is therefore the height of irony that universities, which perform the essential role of incubating ideas,

would choose to evaluate their faculties not on the basis of their thought or on their ability to impart that thought to students, but rather on an irrelevant characteristic such as race or sex. And what lesson does such a policy teach a university's young students: that one's race or gender matters more than one's scholarly research or classroom reputation?

Class-based raises and promotions will predictably spawn, as they have here, litigation by representatives of excluded faculty groups. They will stoke animosities among friends and resentment among colleagues and they will postpone the day when empathy among the races and understanding between the sexes is achieved. They will also diminish the genuine intellectual accomplishments of individual members of the VCU faculty, for which recognition should come irrespective of one's gender or one's race. In short, public actions such as those in this case should be subject to heightened constitutional scrutiny. See, e.g., Adarand Constructors, Inc. v. Peña, 115 S.Ct. 2097 (1995); City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989). The search for knowledge is too important to sacrifice to the spirit of separatism, which this lawsuit so poignantly lays bare.

Judge Russell and Judge Widener join in this opinion.

WILKINS, Circuit Judge, concurring in judgment:

I conclude that the grant of summary judgment should be reversed on two bases. First, viewed in the light most favorable to Appellants, the evidence was sufficient to raise a genuine issue of material fact concerning whether a manifest imbalance attributable to gender existed in faculty salaries. Second, a genuine issue of material fact existed as to whether VCU's affirmative action plan unnecessarily trammelled Appellants' interests.

I.

VCU's reliance on an affirmative action plan to justify its actions placed on Appellants the burden of demonstrating that the plan was

invalid. Johnson v. Transportation Agency, 480 U.S. 616, 626-27 (1987). Appellants sought to carry this burden by showing first that no manifest imbalance attributable to gender existed. See id. at 631-32. Appellants' expert, Dr. McChesney, had not conducted a regression analysis and therefore could offer no competing statistical evidence demonstrating that the difference in pay between male and female faculty members was a function of performance factors or former service as an administrator rather than gender. Instead, Appellants attempted to raise a genuine issue of material fact on this question by attacking the statistical study conducted by VCU, which had attributed a manifest imbalance in salary to gender.

The plurality writes that Appellants created a genuine issue of fact on this issue, reasoning that "major factors" were omitted from the VCU study and that the inclusion of these factors easily could have altered the result of the VCU study. In light of Bazemore v. Friday, 478 U.S. 385, 400 (1986),¹ I cannot conclude on the basis of Appellants' proffer that the VCU study was "so incomplete as to be inadmissible as irrelevant" such that the study may not be considered as evidence of a manifest imbalance. Further, assuming Dr. McChesney had opined only that the regression analysis conducted by VCU had omitted variables that easily could have had an impact on the study, this evidence would not permit a rational trier of fact to conclude that no manifest imbalance existed. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250-51 (1986). Accordingly, were the evidence offered by Appellants no more forceful than this, I would conclude that summary judgment in favor of VCU on this issue was proper. Dr.

¹ In Bazemore, the Supreme Court held that we erred in refusing "to accept the petitioners' expert statistical evidence as proof of discrimination by a preponderance of the evidence" on the basis that the petitioners' regression analysis had failed to include a number of variables that were thought to have a measurable effect on the result. Bazemore, 478 U.S. at 397-400. Although the Court recognized that some regression analyses might be "so incomplete as to be inadmissible" if the study failed to account for major factors, id. at 400 & n.10, in holding that the regression analysis at issue was improperly rejected, the Court repudiated the position that every factor that may have a measurable effect on the result is a "major" one. Moreover, the Court noted that "[n]ormally, the failure to include variables will affect the analysis' probativeness, not its admissibility." Id. at 400.

McChesney's testimony, however, was stronger. And, in my view, this distinction is critical to a conclusion that his testimony was sufficient to raise a genuine issue of material fact concerning whether a manifest imbalance attributable to gender existed.

In response to deposition questions by VCU's attorney concerning whether it was possible that even if the omitted variables he had identified--performance factors (for example, the number of hours taught and quantity of publications) and former service as an administrator--were taken into account, the result might have been essentially the same, Dr. McChesney acknowledged that it was possible; however, he went on to express his opinion that obtaining the same result was unlikely. Additionally, in his affidavit Dr. McChesney stated unequivocally that the difference in pay incorrectly ascribed to gender in the VCU study was actually the result of the performance factors and former service as an administrator. See J.A. 564-65 (stating "differences ascribed to gender are in fact likely due to differences in productivity" and "a spurious difference attributed to gender was in fact due to having been a former administrator").²

The dissent charges that Dr. McChesney's opinion was so lacking in supporting data that no reasonable trier of fact could have accepted it, making summary judgment appropriate. A close examination of the record, though, reveals that his opinion was not so lacking in support. With respect to consideration of status as a former administrator, it was undisputed that all faculty members who served VCU as administrators were rewarded with higher salaries, that former administrators retained these increased salaries when they returned to their faculty positions, and that 71 of the 82 former administrators in the VCU

² The dissent asserts that by acknowledging Dr. McChesney's testimony that consideration of performance factors would have changed the result of the VCU study, I tacitly accept Appellants' argument that it cannot be assumed that men and women perform equally. This, plainly, is not the case. We simply are not free to ignore his testimony at the summary judgment stage merely because one finds his premise that men and women do not perform equally antithetic to the aspirations undergirding Title VII and contrary to personal experience and beliefs. This is particularly true given that Dr. McChesney points to studies from other universities in support of his claim.

study were male. Statistical principles, and common sense, dictate that inclusion of this factor in the VCU study would have narrowed the differential in salary attributed to gender. In addition, to support his conclusion that the result of the VCU study would have been different if it had included variables measuring performance, Dr. McChesney pointed to a "large body of empirical work." J.A. 562. Specifically, he referenced studies performed at other universities to measure whether a difference in faculty salaries attributable to gender existed and explained that these studies had shown that when variables such as the number of articles published were introduced to measure performance, statistically significant pay differentials attributable to gender disappeared. Additionally, Dr. McChesney referred to empirical data from several other universities indicating that men tended to be more productive with respect to the type of variables, such as teaching load and quantity of publications, upon which VCU historically had based its salary determinations. Accordingly, Dr. McChesney did present factual bases for his opinions that were adequate to permit their acceptance by reasonable triers of fact.

Viewed in the light most favorable to Appellants, Dr. McChesney's opinion was that if the omitted variables had been included, the study would have disclosed the lack of a manifest imbalance attributable to gender. While contrary statistical evidence undoubtedly would have been more desirable, I am unable to conclude that his testimony is insufficient to raise a genuine issue of fact concerning whether a manifest imbalance existed. Consequently, in my view, the district court erred in granting summary judgment in favor of Appellants.

II.

Moreover, assuming that the factual basis underlying Dr. McChesney's opinion were insufficient to permit a reasonable jury to conclude that the inclusion of the performance factors and status as a former administrator in the VCU study would have disclosed a complete lack of a manifest imbalance attributable to gender, it cannot be disputed that the opinions of Dr. McChesney and Dr. Henry are sufficient to permit a conclusion that if these factors had been taken into account, at least the difference in pay attributed to gender would have been smaller. Although a conclusion that the VCU affirmative action plan did not unnecessarily trammel the interests of male faculty mem-

bers is essential to a determination that summary judgment was properly granted, see United Steelworkers v. Weber, 443 U.S. 193, 208 (1979); see also Johnson, 480 U.S. at 630, the dissent elects only to discuss in a responsive footnote whether Appellants' evidence that the size of the pay differential attributed to gender in the VCU study was overstated creates a genuine issue of material fact with respect to this issue.

Because the salary equity fund was calculated by multiplying the average difference in pay attributed to gender in the VCU study by the number of women faculty members included in the study pool, plus fringe benefits, see Smith v. Virginia Commonwealth Univ., 856 F. Supp. 1088, 1089 & nn.4 & 5 (E.D. Va. 1994), evidence permitting a jury to conclude that the average pay difference attributable to gender was smaller than that shown by the VCU study is sufficient to raise a genuine issue of material fact concerning whether the salary equity pool was larger than necessary to remedy the differential properly attributed to gender. If the difference in pay attributable to gender was overstated, the question is raised whether VCU's affirmative action plan unnecessarily trammelled the interests of male faculty members by awarding unjustifiable salary increases only to female faculty members. See Weber, 443 U.S. at 208 (holding affirmative action plan did not unnecessarily trammel interests of white employees when plan was tailored "simply to eliminate a manifest racial imbalance").³ Accordingly, summary judgment in favor of VCU was not proper, and a remand for further proceedings is required.

³ The dissent's contention that even if I am correct that the salary equity pool was larger than necessary to remedy the manifest imbalance attributable to gender, the VCU affirmative action plan does not trammel unnecessarily the interests of male faculty members because the evidence fails to demonstrate that the adjustment made to the salary of a single female faculty member was too high. This assertion, however, misses the point. Showing that individual female faculty members received too great an adjustment would be an appropriate method of proving that overall the plan provided compensation in excess of that necessary to remedy the manifest imbalance. Another equally valid method of demonstrating that the plan provided a benefit to the female faculty greater than that necessary to remedy the manifest imbalance attributable to gender is to present evidence, as Appellants did, that the salary equity pool from

Judge Williams joins in this concurring opinion.

LUTTIG, Circuit Judge, concurring in part:

Virginia Commonwealth University has historically based its faculty salary decisions on merit and actual performance, as traditionally measured by teaching quality, course load, and scholarship. In this instance, however, VCU awarded salary increases to its female faculty members only, based exclusively upon the statistical results of a multiple regression analysis that concededly accounts for neither merit nor performance,¹ nor at least two other major variables bearing

which the adjustments to female faculty members' salaries were made was larger than the average difference in salary attributable to gender multiplied by the number of female faculty members and that male faculty members were not provided with any opportunity to compete for these excess funds. Surely the dissent would not suggest that if VCU chose to earmark special funds for a salary increase only for male faculty members in the absence of any manifest imbalance attributable to gender, it would be necessary to show that an individual male faculty member was paid too much. And, certainly in such a circumstance, the dissent would find little comfort in the fact that the salaries of female faculty members were not reduced. Rather, as should be obvious, the fact that the funds were made available to only one gender and were unnecessary to remedy a manifest imbalance attributable to gender would be sufficient to demonstrate that the interests of the female faculty members in this hypothetical were trammelled by such a plan. The same is true here; it is simply a matter of degree.

¹ Although perfunctorily arguing that tenure and academic rank are "crude proxies" for merit and performance, VCU appears to realize, as does the dissent, that tenure and academic rank are more measures of length of service at or above a minimum level of performance than of relative merit or performance above that minimum. Moreover, tenure and academic rank are not in any sense measures of either relative performance after tenure or comparative performance among individuals of the same academic rank.

directly on faculty salaries at the University -- prior status as an administrator and actual years of teaching experience.²

Although the Supreme Court unanimously held in Bazemore v. Friday, 478 U.S. 385 (1986), that a regression analysis need not include every conceivable variable affecting salary in order to be considered as evidence of discrimination, the Court left no question whatsoever that a regression analysis that does not control for at least major variables may be altogether inadmissible. Id. at 400; see also id. at 400 n.10 ("There may . . . be some regressions so incomplete as to be inadmissible as irrelevant . . .").

Given the undisputed facts that merit and performance are major, indeed the principal, determinants of salaries at VCU, and that the regression analysis upon which the University entirely relied in awarding salary increases to its female faculty members did not even attempt to factor in merit or performance (not to mention other major variables), I would hold on the authority of Bazemore that the statistical analysis proffered by VCU is wholly inadmissible as evidence of a manifest imbalance and therefore that the plaintiffs are entitled to summary judgment.³

² Since administrators retain their higher salaries when they return to teaching, and since most prior administrators included in the study were men (the discriminatory implications of which, if any, are not at issue in this case, contrary to the dissent's assertion, see post at 29 n.8), the failure to control for administrative experience would necessarily increase the amount of salary differential that the regression ascribed to gender discrimination. Similarly, the failure to account for breaks in service would, to the extent of any correlation between breaks in service and gender, necessarily attribute to gender some salary differential that was in fact caused by breaks in service.

³ If the district court determines on remand that tenure and academic rank are not adequate proxies for merit and performance, and that merit and performance are major variables which the regression analysis therefore excluded, it would yet be appropriate under our opinions issued today for the court to grant summary judgment for the plaintiffs. Judge Chapman holds only that it is a disputed issue of material fact whether tenure and academic rank are legitimate proxies for merit and performance; if they are not, presumably he would hold, as I would even at this

The dissent is simply mistaken in reading Bazemore as "signalling" that the party challenging the validity of a regression analysis is required to conduct a separate regression in order to demonstrate that a particular variable omitted from the challenged regression is statistically significant and therefore "major." See post at 26. To the extent that there is a "signal" as to what is required to prove a variable "major" in the footnote passage relied upon by the dissent (which passage, incidentally, does not even address this question), it is precisely the opposite of that perceived by the dissent. The Court's criticism of the government respondents for failing to make any attempt -- "statistical or otherwise" -- to demonstrate that properly accounting for all important factors would have revealed the absence of a salary disparity, 478 U.S. at 403 n.14 (emphasis added), "signals," if anything, that a factor may be shown to be major by means other than statistics. This being so, then certainly where, as here, the party relying upon a regression analysis expressly acknowledges that particular omitted variables (i.e., merit and performance) are the principal determinants of the dependent variable (such as salary in this case), the party opposing the regression has carried its burden of demonstrating "otherwise" that the omitted variables are major. **4**

junction, that the University's regression is inadmissible. See ante at 7. Judge Wilkins also fully acknowledges that an analysis is inadmissible if it fails to account for major variables; he simply views the McChesney affidavit as insufficient to establish that a major variable, as opposed to merely a measurable one, was omitted from the regression. See ante at 11 n.1. Thus, nothing in any of the opinions in which a majority of the court concurs forecloses summary judgment for the plaintiffs on remand; indeed, if anything, our opinions reinforce the possibility of such a holding.

4 The dissent also interprets the Court's observations that the salary disparities in Bazemore were "statistically significant" as confirming that an excluded variable may only be deemed "major" if it is shown by separate regression analysis to be statistically significant. See post at 26 (citing Bazemore, 478 U.S. at 399 n.9, 401, 404 n.15). Of course, the existence vel non of a statistically significant salary differential speaks not at all to the question of whether, in order to be considered "major," an omitted variable must be proven to have a statistically significant effect by means of a separate regression analysis, rather than by "other" means.

Despite the fact that VCU purports to quantify performance in its annual faculty salary determinations, VCU contends before us that performance factors are inherently subjective and unquantifiable, and that its regression analysis should not be invalidated merely because it failed to account for the unaccountable. VCU's argument reveals a fundamental misunderstanding about its burden in a case such as this. Assuming that something akin to a McDonnell Douglas burden-shifting paradigm is appropriate in this context, see Johnson v. Transportation Agency, Santa Clara County, 480 U.S. 616, 626 (1987), VCU has the burden of producing evidence that would overcome the plaintiffs' showing of discrimination. The University fails to meet that burden when the only "evidence" it produces is a regression analysis that excludes major variables. Whether these variables were excluded by choice or because of practical impossibility is immaterial; the result in either case is that VCU has failed to meet its burden of production.⁵ At most, the University produced evidence of

⁵ Because the plaintiffs in this case offered direct, un rebutted proof of discrimination, rather than mere circumstantial evidence from which a prima facie case of discrimination may be inferred, I doubt whether the paradigm of McDonnell Douglas Corp. v. Green, 411 U.S. 792 (1973), is even appropriately invoked. Even if it is, it would seem that after City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989), and Adarand Constructors, Inc. v. Peña, 115 S. Ct. 2097 (1995), there is a substantial question whether an affirmative action plan such as VCU's can serve to meet the University's burden of producing evidence of a nondiscriminatory rationale for its facially discriminatory actions. That is, there would seem to be a serious question whether Johnson remains good law, to the extent that the Court there allowed an affirmative action plan to satisfy an employer's burden of production under step two of the McDonnell Douglas framework and imposed upon the party challenging such a plan the burden of proving its invalidity. See Johnson, 480 U.S. at 626-27. To accept that an affirmative action plan constitutes a nondiscriminatory rationale for discriminatory action (and thereby to require the person challenging the plan to establish its invalidity), is to accept that so-called "benign" discrimination is not discrimination about which the antidiscriminatory laws -- be they Title VII or the Equal Protection Clause -- are concerned. However, the entire premise of Croson and Adarand is that "benign" discrimination is discrimination nonetheless, to be subjected to the same exacting level of judicial scrutiny as "invidious" discrimination.

a salary differential between male and female faculty members that was attributable either to gender, or to merit, or to length of service, or to prior status as an administrator, or to other variables not considered in the regression, or to some combination of these omitted variables. It produced no evidence as to which of these variables actually caused the salary differential, much less evidence of the extent to which any of them may have done so.

VCU contends that its regression analysis is valid, even absent the inclusion of merit and performance variables, because it may be assumed that male and female faculty members perform equally on average. In many circumstances it might well be irrational, if not discriminatory per se, not to assume generally that men and women perform equally. But where the question to be answered is whether salary differentials are attributable to gender instead of to differences in performance, to assume equal performance is nothing less than to assume that which it is the purpose of the regression to determine. This is not a question of political correctness, as the dissent believes; it is, pure and simple, a question of logic, a question of whether the regression is science or mere legerdemain.

The assumption that any particular group of men and group of women must necessarily have performed equally on average, which the dissent uncritically accepts in the name of its political correctness, is conceptually flawed in any event. Just as individuals may perform differently because of their different individual capacities and the different degrees to which they realize those capacities (which the dissent concedes), so also may groups of individuals at any particular institution or in any particular workplace perform differently for the same reasons. There is, in other words, no more reason to assume that the group of women faculty at Virginia Commonwealth University performs identically to the group of men faculty than there is to assume that they do not. Indeed, it may well be that VCU's women faculty significantly outperform their male counterparts on average, and that the regression analysis understated the salary differential attributed to gender, a distinct possibility the dissent does not even contemplate. But where the very question to be answered is whether a differential is due to gender discrimination or to differences in performance, the regression that indulges any of these assumptions is fatally flawed.

To refuse to indulge such assumptions is not to assume that men outperform women, contrary to the dissent's suggestion; it is to assume nothing at all about the relative performance of the men and women at Virginia Commonwealth University. It is merely to recognize that without actually assessing the effect performance has on salary, one simply cannot know whether the salary differential identified in VCU's "analysis" is in fact due to gender discrimination.

The dissent, extraordinarily, would even hold that merit itself is an impermissible basis upon which to determine salary, if a regression that properly controlled for merit and performance yielded a conclusion that the male faculty and the female faculty at VCU did not perform identically:

[E]ven if performance factors could measure and did in fact show differences between the productivity of men and women on the average, the only appropriate conclusion to be drawn is that performance factors improperly favor one sex over the other, not that one sex is actually more productive than the other.

Post at 34. To borrow the dissent's own phrase, we should be far beyond such a point today.

Because, in my judgment, the only "evidence" of a manifest imbalance proffered by the University is so inadequate as to be inadmissible in a court of law, I would vacate and remand with instructions to the district court to enter judgment for the plaintiffs.

MICHAEL, Circuit Judge, dissenting:

With all respect to my colleagues on the other side of this case, I am compelled to register a firm dissent. Women faculty members at VCU were paid less just because they were women. This fact was established by VCU's multiple regression study. The plaintiffs' expert argued that the study results would have been different if more factors had been included. But the expert totally failed to back up his opinion

with facts or data showing that any allegedly omitted factor was a major one, that is, one that would be "statistically significant" in showing that gender had no effect on salaries. See Bazemore v. Friday, 478 U.S. 385 (1986). The district court was therefore exactly right in awarding summary judgment to VCU.

Apart from their failure to apply Bazemore and established summary judgment principles, I believe that the collective opinions of my colleagues are quite disturbing for another reason: in one form or another they all criticize VCU's Study for not taking into account performance factors and, therefore, accept (at least tacitly) the male plaintiffs' argument that a salary equity study cannot assume that men and women on the average are equally productive. Somehow we should be far beyond that point today.

I.

VCU's decision to implement a one-time pay adjustment to the salaries of female faculty members did not come about by whim. It was the result of over four years of study and deliberation. In 1987 the VCU student newspaper, the Commonwealth Times, published a listing of faculty salaries that prompted concerns by female faculty members that they were paid less than their male counterparts. Thereafter, several groups within VCU, including the Subcommittee on the Concerns of Women of AA/504 Committee,¹ recommended to the Provost, Dr. Charles P. Ruch, that a study of faculty salaries be conducted to determine if there were pay inequities based on sex and, if such inequities were found, that VCU make appropriate adjustments. At the time there were 1,034 male faculty members and 385 female faculty members. Without taking into account any variable other than gender, the average difference in pay between male and female faculty members was \$10,827.

Accordingly, Provost Ruch appointed the Salary Equity Study Committee to determine if there were gender-based disparities in pay

¹ The AA/504 (which stands for affirmative action/section 504 of the federal Rehabilitation Act) Committee reviews and makes recommendations regarding VCU's equal opportunity and nondiscrimination programs and efforts.

between male and female faculty members. The Committee included a steering committee which conducted the Study, developed its methodology and authored a report of the Study with recommendations. Based on a review of the literature on salary equity and studies conducted at other universities, the steering committee determined that the conventional method for evaluating salary equity concerns was to develop a regression model.²

The steering committee decided that the regression analysis should take into account eight independent variables on salaries paid to 770 tenured and tenure-track faculty members. The independent variables were: (1) the national salary average (same discipline and rank), (2) doctorate or not, (3) tenure status, (4) quick tenure (within four years of appointment) or not, (5) years of experience at VCU, (6) academic experience, (7) experience, if any, as department chair, and (8) gender. When the effect of the seven variables other than gender on fac-

2 VCU's Salary Equity Study provided the following description of multiple regression analyses:

In multiple regression analyses, the effect of several [independent] variables (such as rank, tenure status, or years of experience) on the dependent variable (salary) can be estimated in a mathematical model (usually a linear equation). The regression technique estimates the magnitude of each [independent] variable included in the model, the statistical significance of the estimate, average salaries, and differences in average salaries between males and females, while controlling for all other [independent] variables in the model.

The regression model also estimates the effect of the [independent] variables in terms of dollars, making it possible to compute a predicted salary for each faculty member in the study based on his or her current status and experience. The difference between the actual salary and the predicted salary, called the residual, is an estimate of the amount of over/underpayment received by the faculty member, when all variables in the model are considered.

J.A. at 44-45.

At the time VCU conducted its Study, the following schools had conducted salary studies using regression analyses: University of Connecticut, University of Maryland, University of Wisconsin-Milwaukee, University of Virginia, and Virginia Tech. J.A. at 46.

ulty salaries was taken into account, the effect of gender on faculty salaries was a statistically significant \$1,354 in 1989. When the regression analysis was run again in 1991, it was \$1,982. Thus, while the steering committee's decision to employ a regression analysis reduced the perceived gap in pay between male and female faculty members from \$10,827 to between \$1,300 and \$1,900, women on average were still paid significantly less than men.³

The steering committee explained in detail the basis for its decision not to include specific performance factors as independent variables in the Study, though variables such as rank and tenure status were viewed as proxies for performance. According to the committee, it designed the Study "to include as many legitimate explanatory factors as possible," and it included "only factors that could be measured objectively and consistently for all faculty members." The committee determined, however, that "valid and reliable measures of faculty performance across all disciplines in the University would be impossible to develop for statistical analyses." J.A. at 48. In particular, the committee found "[s]everal insurmountable hurdles," including a lack of agreement on measurement and implementation procedures, reluctance by University administrators to relinquish authority in faculty evaluation and salary determination, and probable lack of support and cooperation from faculty members. *Id.* The committee also said that it was "unaware of any other institution which has attempted a quantitative assessment of performance on a university level for inclusion in a salary equity study." *Id.* And the committee explained that "[a]lthough there are individual differences in faculty performance, the steering committee believes that there is no reason to suspect that female faculty members are less productive on the average than male faculty members." J.A. at 59 (emphasis in original).

³ The steering committee's findings were confirmed by VCU's expert statistician, Dr. Rebecca Klemm. Dr. Klemm testified (in deposition) that she took the steering committee's raw data and ran new regression studies using models different from the one used by the committee. Dr. Klemm's new studies consistently showed a gender difference in salary at VCU of a magnitude "very similar" to that found by the committee's original model. In moving for summary judgment, VCU has relied on the steering committee's regression study and Dr. Klemm's testimony to establish the existence of a manifest imbalance in pay tied to the impermissible factor of gender.

Moreover, while the statistical analysis clearly showed that the salaries of male and female faculty members were unequal, the steering committee recognized that "[b]ecause of the unique circumstances that affect individual salaries, . . . the regression model is not as useful for identifying specific individuals with salary equity problems." J.A. at 42. Accordingly, the steering committee recommended that VCU create a "salary equity fund" and that the funds be distributed in an across-the-board pay increase for tenured and tenure-track females covered in the Study plus individualized adjustments for extraordinary cases of salary inequity.

The recommendations were presented to the VCU Faculty Senate, which advised Provost Ruch of its vote to accept the recommendations. Provost Ruch then appointed an implementation committee to recommend salary adjustments.

The implementation committee reviewed submissions from female faculty members to determine how to remedy the gender gap, and it eventually decided to examine each case individually to determine appropriate adjustments (i.e., no set across-the-board pay increase was implemented, though pay increases were given at some level to each woman who made a submission). The committee examined the female faculty member's curriculum vitae and departmental data, and where appropriate it compared the female member's salary with similarly situated male faculty. The implementation committee issued its final report on December 20, 1991, recommending one-time salary adjustments ranging from 1% to 40% for 168 female faculty members; the median increase was 3.3% or \$1,414. The salary increases were first paid in March 1992.

Against this record, the plaintiffs (five male professors) challenge the one-time salary adjustments under Title VII of the Civil Rights Act of 1964. In an attempt to defeat summary judgment, the plaintiffs have offered the deposition testimony and affidavit (filed after the district court granted summary judgment) of their expert, Dr. Fred McChesney, an economics professor from Emory University. Although he does not say by how much (and evidently he does not know), Dr. McChesney opines that the results of the VCU Study would have been different had it included additional independent variables. J.A. at 518. Dr. McChesney further opines that the VCU

Study was flawed because it assumed that men and women faculty members are on the average equally productive. J.A. at 562. As to VCU, however, Dr. McChesney has failed to offer any statistical evidence in support of his opinion. As I explain below, that omission is dispositive here. It renders Dr. McChesney's opinion pure speculation. With all respect to the plurality and those concurring, I must therefore dissent--on the record before us there is simply no material fact in dispute.

II.

A.

In Bazemore v. Friday, a unanimous Supreme Court determined that this circuit erred in holding that a multiple regression analysis was unacceptable evidence of discrimination. 478 U.S. at 387. The Court flatly rejected our conclusion that "[a]n appropriate regression analysis of salary should . . . include all measurable variables thought to have an effect on salary level." Id. at 399 (quoting Bazemore v. Friday, 751 F.2d 662, 672 (4th Cir. 1984)) (emphasis supplied by the Supreme Court). To the contrary, a regression analysis provides admissible evidence of discrimination--or, in this case, evidence of a manifest imbalance--if it "accounts for the major factors" relevant in determining whether a disparity exists in salary, and the results of the analysis show that the disparity exists based on an impermissible factor such as gender or race. Id. at 400.⁴

This case therefore turns on whether VCU's regression analysis accounted for the "major" factors when determining that a disparity exists in the pay between male and female faculty members. Based on Dr. McChesney's opinion, the plurality says that is a question for the trier of fact because the analysis should have included additional

⁴ Establishing the existence of a "manifest imbalance" might sound like a hard job for an employer, but it is not. The Supreme Court recognizes that an employer seeking to institute an affirmative action plan should not have to admit to past discrimination or even present facts sufficient to establish a prima facie case of discrimination under Title VII. Johnson v. Transportation Agency, 480 U.S. 616, 632-33 (1987).

independent variables such as performance,⁵ any prior administrative service,⁶ and the amount of time a faculty member actually spent teaching (as opposed to the length of time since the faculty member began teaching). I disagree.

Bazemore made clear that statistical significance is the wedge that divides "major" factors from other "measurable" factors. Indeed, the Court in Bazemore criticized the governmental respondents for a trial strategy that "made no attempt--statistical or otherwise--to demonstrate that when these [omitted, but allegedly important] factors were properly organized and accounted for there was no significant disparity between the salaries of blacks and whites." 478 U.S. at 403 n.14. In addition, the Court noted three times that the regression analyses in Bazemore showed that the salary disparities were "statistically significant." Id. at 399 n.9, 401, 404 n.15. Bazemore therefore clearly signals that "major" factors are statistically significant factors.

In this case Dr. McChesney points to additional independent variables that he believes VCU should have included in its regression analysis. He opines that if these variables were included the results of the analysis would have been different. Yet, Dr. McChesney offers no evidence showing that the allegedly omitted variables are statistically significant, that is, evidence showing that the allegedly omitted factors are "major." Accordingly, when the trier of fact hears Dr. McChesney's testimony, it will have no evidentiary basis whatsoever

⁵ As the steering committee pointed out, the Study did in fact include variables, such as rank and tenure status, that acted as measures of performance.

⁶ The claim that prior administrative service should have been taken into account can be seen either as a claim that VCU omitted a major factor from the Study or a claim that the Study improperly inflated the pool of faculty members. See ante at 7-8 (asserting that the pool of faculty members was improperly inflated). No matter how the claim is characterized, if the plaintiffs and Dr. McChesney have failed to show that prior administrative service is a major factor under Bazemore, summary judgment should be granted. That is, absent such a showing, the plaintiffs and Dr. McChesney cannot establish that there would have been any meaningful difference in the outcome of the Study. All the plaintiffs and Dr. McChesney can do is speculate.

for concluding that any or all of the allegedly omitted variables are "major." In fact, because Dr. McChesney offers only his opinion, unsupported by any evidence of statistical significance, it is pure speculation for him to say that the outcome of VCU's regression analysis would have been different had the variables been included. It is therefore error to conclude that under the Supreme Court's teachings in Bazemore a genuine issue of material fact is presented here.⁷

The plurality opinion does nothing to undercut the logic of this analysis and, in fact, the plurality seeks to avoid it altogether. The plurality attempts to justify its decision by distinguishing Bazemore on the grounds that it was decided after a trial. Thus, according to the plurality, "VCU cannot rely on Bazemore at summary judgment to establish as a matter of law that the multiple regression analysis was sufficient to determine manifest imbalance." Ante at 7. The different procedural posture of this case is certainly a distinction between it and Bazemore. However, because the plaintiffs and their expert have failed to offer any evidence showing that any or all of the variables they claim VCU omitted from its regression analysis would be of statistical significance, it is a distinction without any analytical importance.

Indeed, because this case is at the summary judgment stage, the parties have had the opportunity to develop the record fully, and we know what evidence the plaintiffs will offer at trial in support of their position. Cf. Bazemore, 478 U.S. at 401 (stating that we "failed utterly to examine the regression analyses in light of all the evidence in the

⁷ It is, of course, black letter law that conclusory or speculative assertions do not create genuine issues of material fact. See Celotex Corp. v. Catrett, 477 U.S. 321, 322-23 (1986). We have not hesitated to apply this principle in discrimination cases in the past. See, e.g., O'Connor v. Consolidated Coin Caterers Corp., 56 F.3d 542, 545 (4th Cir. 1995), rev'd on other grounds, 116 S. Ct. 1307 (1996); Felty v. Graves-Humphreys Co., 818 F.2d 1126, 1128 (4th Cir. 1987); Ross v. Communications Satellite Corp., 759 F.2d 355, 364 (4th Cir. 1985). Moreover, an expert's opinion is inadmissible when it is based on assumptions that are speculative and are not supported by the record. See, e.g., Daubert v. Merrell Dow Pharms., Inc., 113 S. Ct. 2786, 2795 (1993); Tyger Const. Co. Inc. v. Pensacola Const. Co., 29 F.3d 137, 142 (4th Cir. 1994).

record"). Therefore, if under the teachings of Bazemore the plaintiffs' evidence would be insufficient for them to succeed at trial, the evidence is, as a matter of law, insufficient to defeat VCU's motion for summary judgment. As the Supreme Court said in Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 251-52 (1986):

[T]he "genuine issue" summary judgment standard is "very close" to the "reasonable jury" directed verdict standard: "The primary difference between the two motions is procedural; summary judgment motions are usually made before trial and decided on documentary evidence, while directed verdict motions are made at trial and decided on the evidence that has been admitted." Bill Johnson's Restaurants, Inc. v. NLRB, 461 U.S. 731, 745, n.11 (1983). In essence, though, the inquiry under each is the same: whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law.

Here, because the plaintiffs offered no evidence--and apparently would offer none at trial--that the allegedly omitted variables are statistically significant, the evidence is in fact so one-sided that VCU must prevail as a matter of law.

B.

The concurring opinions of Judge Wilkins and Judge Luttig also fail to point to any statistical evidence showing that VCU omitted a "major" factor from its regression analysis. Nonetheless, both opinions mistakenly believe that VCU is not entitled to summary judgment, and Judge Luttig goes so far as to argue that the plaintiffs are entitled to summary judgment based on the record before us. I cannot agree.

1.

In his concurrence Judge Wilkins recognizes that in light of Bazemore Dr. McChesney's opinion does not provide a basis for concluding that "the VCU study was `so incomplete as to be inadmissible

as irrelevant' such that the study may not be considered evidence of a manifest imbalance." Ante at 11 (quoting Bazemore, 478 U.S. at 400). Judge Wilkins believes, however, that VCU is not entitled to summary judgment because Dr. McChesney opines that "'differences ascribed to gender are in fact likely due to differences in productivity' and 'a spurious difference attributed to gender was in fact due to having been a former administrator.'" Ante at 12 (quoting J.A. at 564-65). Judge Wilkins further believes that Dr. McChesney has provided adequate support for these conclusions (at least for purposes of defeating summary judgment) because "71 of the 82 former administrators in the VCU study were male," ante at 12-13,⁸ and because Dr. McChesney says there is "'a large body of empirical work'" from other universities which found that productivity variables favor male faculty members over female faculty members. Id. (quoting J.A. at 562). Judge Wilkins then makes an inferential leap of faith and says that taking the evidence in the light most favorable to the plaintiffs, Dr. McChesney's opinion is that "if the omitted variables had been included, the study would have disclosed the lack of a manifest imbalance attributable to gender." Ante at 13.

Of course, Dr. McChesney has never said that the inclusion of the allegedly omitted variables would have eliminated the manifest imbalance attributable to gender found to exist at VCU. At most, Dr. McChesney has opined that the inclusion of such variables would have made a difference in the outcome of the Study. See J.A. at 518. How much of a difference is anybody's guess.

In addition, even if Judge Wilkins is correct in saying that Dr. McChesney opines that the inclusion of the alleged omitted variables would have disclosed the lack of a manifest imbalance, he is still wrong to conclude that Dr. McChesney's opinion establishes the existence of a genuine issue of material fact. Dr. McChesney cites but one study in his affidavit in support of his opinion. See J.A. at 563 (citing Raymond, Sesnowitz & Williams, "Does Sex Still Matter? New Evi-

⁸ In light of the numbers (i.e., only eleven of eighty-two former administrators at VCU are women), the plaintiffs' argument that the variable for prior administrative service should have been included in VCU's Study simply begs the question whether there is discrimination against female faculty members.

dence from the 1980s," 26 Econ. Inq. 43 (1988)). That study, however, did not involve VCU: it examined a single institution (Kent State University), and its authors expressly said that "it is not possible to generalize from the results of this study" Raymond, Sesnowitz & Williams, supra, at 49 (emphasis supplied).⁹ Therefore, even if the plaintiffs could raise a genuine issue of material fact without offering evidence that the factors VCU allegedly omitted from its Study are statistically significant, the Kent State study provides the plaintiffs with no more than a "scintilla of evidence," Daubert, 113 S. Ct. at 2798, not enough to defeat summary judgment.

Indeed, other than simply taking Dr. McChesney's word (if Dr. McChesney actually gave his word), I am at a loss as to how one can reach the conclusion that Dr. McChesney's opinion establishes for purposes of summary judgment that inclusion of the alleged omitted factors would have eliminated the manifest imbalance in pay. Insofar as VCU's Study is concerned, because Dr. McChesney does not provide any data or facts of statistical significance in support of his "opinion," a trier of fact could not accept it. Fed. R. Evid. 702; see, e.g., Daubert, 113 S. Ct. at 2798 (listing cases and stating that if an expert fails to present sufficient evidence from which a reasonable

⁹ Interestingly, though, the authors of the Kent State study chose not to try to measure the quality of scholarly activity and teaching performance; instead, they used status on Kent State's graduate faculty as a proxy for these omitted variables. Id. at 45 & n.6. The authors further explained that:

[G]iven the absence of measures of research quality, teaching, and service to the university, the impact of rank on measured discrimination should be examined. If the promotion process is properly functioning, it should be one of the best available indicators of the overall contribution of an individual to the institution.

Id. at 45. Of course, in finding that a manifest imbalance in pay exists at VCU, the VCU Study also viewed rank and tenure status as proxies for performance and included these variables in the Study. Cf. ante at 7 (finding "that the questions of whether [rank and tenure] were sufficient to account for merit and whether the actual performance factors could and should have been included in the [VCU] study are questions of material fact").

juror could conclude that the expert's position is more likely than not true, a trial court remains free to grant a directed verdict or summary judgment).¹⁰

10 Judge Wilkins argues secondarily that a genuine issue of material fact is raised on the question of whether VCU's affirmative action plan unnecessarily trammled on the rights of the plaintiffs. According to Judge Wilkins, the plaintiffs (who have not experienced a pay cut of any sort) may have had their rights trammled because inclusion of the allegedly omitted factors would have disclosed a smaller difference in pay between that of male and female faculty members. Therefore, because the salary equity fund (for female salary adjustments) was calculated by multiplying the number of female faculty members by the average difference in pay attributed to gender in the VCU Study, the rights of the plaintiffs have been trammled to the extent that the fund should have been smaller. Ante at 13-14.

That is the wrong analysis. If we assume (as Judge Wilkins does in this part of his opinion) that a manifest imbalance in pay exists, then the issue is whether the remedy chosen to alleviate that imbalance trammled the rights of the plaintiffs. See United Steelworkers v. Weber, 443 U.S. 193, 208-09 (1979). Here, VCU did not establish a salary fund and then simply provide an across-the-board pay increase of equal amount to all female faculty members at the expense of the male faculty members. Instead, VCU, through its implementation committee, required that each female faculty member who wished to be considered for a one-time pay adjustment submit supporting materials to justify any pay increase. The implementation committee then adjusted the pay of each particular female faculty member based on her credentials and, where appropriate, the pay of similarly situated male faculty members. No right or interest of any male faculty member was therefore trammled. In fact, the plaintiffs have failed to point to a single example where the pay of a particular female faculty member was increased in a disproportionate amount. Accordingly, I assume that there is no such example. Cf. Ende v. Board of Regents of Regency Univ., 757 F.2d 176, 183 (7th Cir. 1985) (stating that issue of whether affirmative action plan unnecessarily trammels the interests of male faculty members does not arise unless particular female faculty members were paid more than necessary to alleviate the pay imbalance attributable to gender).

2.

Judge Luttig, in his concurring opinion, asserts that the plaintiffs can successfully challenge VCU's Study without showing that any omitted variable is statistically significant provided that there are other means to establish that the variable is "major" within the meaning of Bazemore. Judge Luttig believes that such means exist here because VCU traditionally relies upon performance factors when determining the salary of individual faculty members. See ante at 17-19. Even if statistical significance does not provide the sole means for determining whether a regression analysis omitted a "major" variable, I must disagree with this analysis.

While merit and performance may be major factors when determining the pay of individual faculty members at VCU, Judge Luttig points to no evidence in the record (statistical or otherwise) showing that performance factors are "major" variables in determining whether pay inequities exist between general groupings of faculty members at VCU. Cf. Bazemore, 751 F.2d at 692-93 (Phillips, J., dissenting) ("it will always be possible . . . to hypothesize yet another variable that might theoretically reduce a race-effect coefficient demonstrated by any multiple regression analysis that could be conceived"). And, as I explain below, performance factors--which are appropriate means for determining the pay of an individual faculty member--do not and, as a matter of law, cannot provide a basis for justifying salary inequities that exist on the average between general groupings of individuals, such as between male and female faculty members at VCU.¹¹

¹¹ Equally flawed is Judge Luttig's suggestion that the plaintiffs may be entitled to summary judgment on remand based on the collective opinions in this case. See ante at 16 n.3. While the concurring opinion of Judge Wilkins holds that the plaintiffs have presented sufficient evidence to defeat summary judgment, Judge Wilkins makes expressly clear that VCU's Study is not "so incomplete as to be inadmissible as irrelevant. . . ." Ante at 11 (quoting Bazemore, 478 U.S. at 400). And this is true even when the evidence is viewed in the light most favorable to the plaintiffs. Of course, if the question is whether the plaintiffs are entitled to summary judgment, then we (and the district court) must view the evidence in the light most favorable to VCU. Likewise, VCU's tender of an affirmative action plan as the basis for its decision to grant pay adjust-

III.

At the heart of this case is the plaintiffs' argument that VCU's regression analysis was flawed because it assumed that male and female faculty members are on the average equally productive. Because the plurality and concurring opinions all criticize VCU's Study for not taking into account performance factors, the only conclusion I can draw is that they accept (at least tacitly) the male plaintiffs' argument that a salary equity study cannot assume that men and women on the average are equally productive. I, however, cannot accept the plaintiffs' argument, and I believe that it was completely proper for VCU to assume, when conducting its Study, that men and women are on the average equally productive.

Specifically, the plurality and concurring opinions fail to realize that performance factors are important in determining pay at VCU because they measure qualitative differences in productivity between particular individuals. They are not intended to measure differences in productivity between general groupings of individuals, such as between men and women or between blacks and whites. Thus, while performance factors can measure the differences in the productivity between a particular female faculty member and a particular male

ments to female faculty members shifts the burden of proving the invalidity of the plan to the plaintiffs. See Johnson, 480 U.S. at 626-27.

Further, Judge Luttig's (and Chief Judge Wilkinson's) reliance on the Supreme Court's decisions in Adarand Constructors, Inc. v. Pena, 115 S. Ct. 2097 (1995), and City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989), is a red herring. See ante at 18 n.5; ante at 10. The plaintiffs brought their complaint under Title VII and the Equal Pay Act, J.A. at 33-34, not the Equal Protection Clause. Nor have the plaintiffs attempted to raise a claim under the Equal Protection Clause in the briefs submitted to this court. There is thus no constitutional issue before us. See Johnson, 480 U.S. at 620 n.2 (deciding case based exclusively upon Title VII and declining to address Equal Protection Clause issue when "[n]o constitutional issue was either raised or addressed in the litigation below"); id. at 627 n.6 (rejecting argument that the obligations of a public employer under Title VII must be identical to the obligations under the Constitution).

counterpart, performance factors cannot (and do not) provide a guide for measuring differences between the productivity of men and women on the average. That is simply not their function.

Suppose, for example, that VCU had attempted to measure whether its students learn more when the professor is male rather than female. VCU might ask students whether they believe that they learn more when a male is their professor rather than a female. Or VCU might ask faculty members or administrators whether they believe that students generally learn more when taught by a male professor rather than a female professor. Theoretically, VCU could take all the student, faculty, and administrator evaluations for all professors across all disciplines and reach some "conclusion" about whether students learn more when the professor is male. But that conclusion would simply be a collection of subjective evaluations, which while having relevance when focusing on a single individual, loses all relevance when evaluating and attempting to draw generalizations about a group of individuals as a whole. And, of course, the same can be said for evaluating the quality of professorial publications and a group's overall service to the university.

In any event, even if performance factors could measure and did in fact show differences between the productivity of men and women on the average, the only appropriate conclusion to be drawn is that performance factors improperly favor one sex over the other, not that one sex is actually more productive than the other. If, however, performance factors do accurately measure productivity, their inclusion (or exclusion) in a university-wide quantitative study would not make any difference in the outcome of the study because performance on the average would be the same for both men and women. As a matter of law, this must be the case because an essential premise underlying Title VII is that, except in the case of a valid affirmative action plan, impermissible factors such as sex and race cannot have a bearing on one's employment status, including one's pay. See Johnson v. Transportation Agency, 480 U.S. 616 (1987); United Steelworkers v. Weber, 443 U.S. 193 (1979). For purposes of conducting a university-wide quantitative study of differences in pay between men and women, it is therefore entirely proper for VCU both to exclude performance factors and to assume that the sexes on the average are equally productive.

Of course, VCU understood what my colleagues on the other side of this case have failed to realize. When measuring differences in pay between the sexes, the steering committee assumed equal productivity (though the committee took the extra step and considered rank and tenure status as proxies for performance). However, when eliminating the pay inequity found to exist, the implementation committee examined each case individually. It then recommended a one-time adjustment in pay that varied in amount depending upon the credentials of each female faculty member and, where appropriate, the pay of similarly situated male faculty members. Thus, the record in this case shows that VCU assumed equal productivity when it made sense to do so and that VCU adjusted the pay of female faculty members in light of each female faculty member's credentials and in relation to what male faculty members earned. In response to this analysis, Judge Luttig says that I have made this case into one of "political correctness." Ante at 19. Perhaps I am politically correct, but in light of Title VII I am legally correct.

Finally, I must voice my disagreement with Chief Judge Wilkinson's concurrence. We all wish to live and have our children learn in a society where gender and race have no place in evaluating merit and a person's worth. In this case, however, the administration at VCU was confronted with facts that showed that its institution had not yet fully attained those ideals--women were being paid less as a result of their sex. That VCU should choose, on its own accord, to remedy such unequal treatment is an effort that should be applauded, not condemned. Moreover, because VCU took action to bring about pay equality between men and women, it cannot be fairly accused of stirring up animosity and resentment or of promoting separatism. And, speaking of animosity, I can only wonder about the animosity created when the male plaintiffs here attempt to block efforts to remedy inequities because "on the average" they believe themselves to be of higher merit and worth than their female colleagues at VCU.

* * *

This case should be decided on the record. It establishes that women faculty members at VCU were paid less because they were women. As a matter of law, the plaintiffs have offered no evidence

that disputes that fact. The district court's award of summary judgment to VCU should therefore be affirmed.

Judges Hall, Murnaghan, Ervin and Motz joined in this dissent.