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DECONSTRUCTING DISPARATE IMPACT: A VIEW OF THE MODEL THROUGH NEW LENSES

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STEVEN L. WILLBORN**

Professors Paetzold and Willborn explore the underlying theoretical justification for the disparate impact model of discrimination using two new lenses—concurrence and stratification. Concurrence issues occur when an employer screens applicants using two or more employment practices. Stratification occurs when an employer applies one criterion to a heterogeneous population. Professors Paetzold and Willborn demonstrate how concurrence and stratification complicate analysis of disparate impact's causation element. Using the stratification lens, for example, they demonstrate that disparate impact cases employ a notion of causation blinded to external social factors. This blindered causation is the defining characteristic of the disparate impact model.

Using this conception of the model's treatment of causation, Professors Paetzold and Willborn provide insights into the model's proper role. They show that the disparate impact model is not completely consistent with either the equal achievement or equal treatment conception of equality. However, a blindered treatment of causation allows the model to eliminate employment barriers which are not related to productivity. Finally, the authors demonstrate that concurrence and stratification can be selectively employed to provide a more unblindered view of causation when necessary to promote the model's underlying anti-barrier goal.

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I.	INTRODUCTION	326
II.	DESCRIBING THE LENSES: CONCURRENCE AND STRATIFICATION	331
	A. <i>The Concurrence Lens</i>	332
	B. <i>The Stratification Lens</i>	336
	C. <i>Distinguishing Concurrence and Stratification From Other Issues</i>	342
	1. Bottom Line Issues	343
	a. Distinguishing Concurrence from Bottom Line	343
	b. Distinguishing Stratification from Bottom Line	345
	c. Relevant Implications of Bottom Line Analysis	345
	2. Population Issues	347
	D. <i>Court Allusions to Concurrence and Stratification in Disparate Impact Analysis</i>	348
	1. Concurrence	348
	2. Stratification	350
III.	USING THE LENSES TO DECONSTRUCT "ORDINARY" DISPARATE IMPACT CASES	351
	A. <i>"Ordinary" Disparate Impact Cases and the Nature of Causation</i>	352
	B. <i>Blinded Causation and the Nature of "Ordinary" Disparate Impact Cases</i>	364
	C. <i>Blinded Causation and the Underlying Rationale of the Disparate Impact Model</i>	370
IV.	A LOOK AT THE LENSES: THE APPROPRIATE TREATMENT OF CONCURRENCE AND STRATIFICATION IN DISPARATE IMPACT CASES	377
	A. <i>Legal Analysis of Concurrence Situations</i>	378
	1. Current Legal Interpretation	378
	2. Proposed Legal Framework	380
	B. <i>Legal Analysis of Stratification Situations</i>	387
	1. Canvassing the Possibilities	387
	2. Causation When Stratification Is Used Defensively	390
	3. Causation When Stratification Is Used Offensively	395
V.	CONCLUSION	397

I. INTRODUCTION

Disparate impact analysis is an important feature on the horizon of antidiscrimination law. The analysis has been codified in Title VII

of the Civil Rights Act of 1964,¹ in which it plays a central role and has been most developed. But it also plays a significant role across virtually the entire spectrum of antidiscrimination law,² both in this country and abroad.³ Despite its importance, disparate impact analysis has always been controversial⁴ and nebulous,⁵ in part

1. Civil Rights Act of 1964, Title VII, § 703(k), 42 U.S.C. § 2000e-2(k) (Supp. V 1993).

2. In addition to its application to employment discrimination under Title VII, the model plays an important role under other statutes prohibiting employment discrimination and in a number of other substantive areas, such as housing discrimination, credit discrimination, and voting rights. *See, e.g.*, *Thornburg v. Gingles*, 478 U.S. 30, 63-74 (1986) (applying a type of disparate impact analysis in voting rights context); *Abbott v. Federal Forge, Inc.* 912 F.2d 867, 872 (6th Cir. 1990) (applying disparate impact model under federal age discrimination statute); *Huntington Branch, NAACP v. Town of Huntington*, 844 F.2d 926, 937-38 (2d Cir.) (applying disparate impact model in housing discrimination case), *aff'd per curiam*, 488 U.S. 15 (1988); *Montana Rail Link v. Byard*, 860 P.2d 121, 130-31 (Mont. 1993) (applying disparate impact model under state law prohibiting employment discrimination); Policy Statement on Discrimination in Lending, 59 Fed. Reg. 18,266 (1994) (mandating that disparate impact model be applied in lending discrimination cases).

3. A number of foreign jurisdictions have recognized the disparate impact model as a method of proving discrimination. *See, e.g.*, Sex Discrimination Act, No. 4, § 5(2) (1984) (Austl.); Race Relations Act, 1976, ch. 74, § 1(1)(b) (U.K.); Sex Discrimination Act, 1975, ch. 65, §§ 1(1)(b), 3(1)(b) (U.K.); *Syndicat de l'Enseignement de Champlain v. Commission Scolaire Regionale de Chambly*, 115 D.L.R.4th 609 (1994) (Can.); *Case 170/84, Bilka-Kaufhaus v. Weber von Hartz*, 1986 E.C.R. 1607 (E.C.).

4. The controversy was especially heated during the Reagan administration because of its view that Title VII embraced only the disparate treatment model of discrimination. For a scholarly exchange on this view, see Joel L. Selig, *The Reagan Justice Department and Civil Rights: What Went Wrong*, 1985 U. ILL. L. REV. 785; William Bradford Reynolds, *The Reagan Administration and Civil Rights: Winning the War Against Discrimination*, 1986 U. ILL. L. REV. 1001; Joel L. Selig, *The Reagan Justice Department and Civil Rights: Professor Selig Responds to Assistant Attorney General Reynolds*, 1987 U. ILL. L. REV. 431. *See also* Drew S. Days, III, *The Courts' Response to the Reagan Civil Rights Agenda*, 42 VAND. L. REV. 1003, 1008-15 (1989) (noting judicial setbacks to Reagan Justice Department's attempts to refocus civil rights enforcement on intentional discrimination); Drew S. Days, III, *Turning Back the Clock: The Reagan Administration and Civil Rights*, 19 HARV. C.R.-C.L. L. REV. 309, 323-25 (1984) (criticizing the Reagan Justice Department for initiating school desegregation litigation only when there was clear evidence of "pervasive intentional discrimination"). For criticisms of the model independent of the Reagan administration's approach, see Michael Evan Gold, Griggs' Folly: *An Essay on the Theory, Problems, and Origin of the Adverse Impact Definition of Employment Discrimination and a Recommendation for Reform*, 7 INDUS. REL. L.J. 429 (1985); Earl M. Maltz, *The Expansion of the Role of the Effects Test in Antidiscrimination Law: A Critical Analysis*, 59 NEB. L. REV. 345 (1980).

5. The courts have struggled in their attempts to present a clear vision of the scope and application of the model. They have had considerable difficulty, for example, in defining the class of cases to which the model applies. *See, e.g.*, *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977, 991 (1988) (concluding that the model applies to subjective employment criteria); *American Nurses' Ass'n v. Illinois*, 783 F.2d 716, 723 (7th Cir. 1986) (indicating in dicta that the model does not apply to sex-based wage claims). Considerable

because of the lack of consensus on its underlying theoretical justification.⁶ In this Article, we deconstruct⁷ the disparate impact model by examining it through two new lenses—concurrence and stratification.⁸ This deconstruction permits us to see the disparate impact model anew, to identify its features more clearly, and to explore again, more fruitfully, its appropriate function in the constellation of antidiscrimination models.⁹

uncertainty persists, even after Supreme Court decisions and legislative action, about the precise constraints placed on the model by the requirement that plaintiffs identify a particular employment practice. *See infra* notes 173-80 and accompanying text. Even when the courts are clear that the model applies to a class of cases, they have faced considerable difficulty defining the appropriate statistical comparisons. *See, e.g.,* *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642, 650 (1989) (holding that comparison must be made based on qualified population in relevant labor market); *Connecticut v. Teal*, 457 U.S. 440, 442 (1982) (holding that “bottom line” statistics cannot be used defensively). The courts’ fuzzy vision of the disparate impact model is especially apparent when they are unable to distinguish disparate impact and systemic disparate treatment cases. *See* RAMONA L. PAETZOLD & STEVEN L. WILLBORN, *THE STATISTICS OF DISCRIMINATION* § 8.06 (1994) (describing how housing discrimination cases regularly mislabel systemic disparate treatment cases as disparate impact cases).

6. Commentators have made a number of attempts to provide a theoretical justification for the disparate impact model. *See, e.g.,* Paulette M. Caldwell, *Reaffirming the Disproportionate Effects Standard of Liability in Title VII Litigation*, 46 U. PITT. L. REV. 555, 580-83 (1985) (arguing that disparate impact was designed to enhance productive efficiency); Martha Chamallas, *Evolving Conceptions of Equality Under Title VII: Disparate Impact Theory and the Demise of the Bottom Line Principle*, 31 UCLA L. REV. 305 (1983) (arguing that disparate impact was designed to produce equal outcomes for disadvantaged groups); Owen M. Fiss, *A Theory of Fair Employment Laws*, 38 U. CHI. L. REV. 235, 237-40 (1971) (arguing that disparate impact is the functional equivalent of intentional discrimination); Michael J. Perry, *The Disproportionate Impact Theory of Racial Discrimination*, 125 U. PA. L. REV. 540, 555-59 (1977) (arguing that disparate impact is designed to prevent the perpetuation of past discrimination); George Rutherglen, *Disparate Impact Under Title VII: An Objective Theory of Discrimination*, 73 VA. L. REV. 1297, 1308-11 (1987) (arguing that disparate impact is designed to prevent disparate treatment in situations where pretextual discrimination is difficult to prove); *see also* Paul N. Cox, *Substance and Process in Employment Discrimination Law: One View of the Swamp*, 18 VAL. U. L. REV. 21 (1983) (stating that efforts to provide a theoretical justification for the disparate impact model “are in a state of near complete disarray”).

7. We do not use the word “deconstruct” in the postmodern, Derridean sense. *See* JACQUES DERRIDA, *ACTS OF LITERATURE* (1992); JACQUES DERRIDA, *DE LA GRAMMATOLOGIE* (1992); CHRISTOPHER NORRIS, *WHAT IS DECONSTRUCTION?* (1988). Instead, we re-examine the disparate impact model by applying new lenses in order to uncover its key features. We then use the key features in conjunction with the lenses to prescribe how the model should handle more complex factual situations that may arise.

8. A discussion of the meaning of these two terms appears immediately below, *see infra* notes 12-16 and accompanying text, and more fully later, *see infra* part II.

9. Although some uncertainty exists about the precise boundaries between them, the other major models of discrimination are individual disparate treatment, systemic disparate treatment, reasonable accommodation, and harassment. *See, e.g.,* PAETZOLD & WILLBORN, *supra* note 5, §§ 1.01-1.12.

Our deconstruction focuses on the causation element of the disparate impact model. To establish a prima facie case of disparate impact, the plaintiff must demonstrate that an employer “uses a particular employment practice that *causes* a disparate impact on the basis of race, color, religion, sex, or national origin.”¹⁰ The model is clear on how causation is established in the simplest case: When an employer uses a single employment practice and applies it to a homogeneous population, a plaintiff can prove that the practice “causes” a disparate impact based on race by demonstrating that it eliminates from consideration a higher proportion of black applicants than white applicants.¹¹ But our interest in the causation element (and in the disparate impact model more generally) arose when we began to reflect on slightly more complex situations.

First, we considered situations in which the employer uses two employment practices to screen applicants—say, a test and a high school diploma requirement. A number of interesting permutations are possible from this slight increase in complexity. It is possible, for example, that neither the test nor the high school diploma requirement causes a disparate impact by itself, but that the two practices operating together do.¹² Has the plaintiff established a prima facie case if she proves this, or has she failed to show that a

10. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993) (emphasis added). This language (and other language codifying and modifying the disparate impact model) was inserted into Title VII by the Civil Rights Act of 1991, Pub. L. No. 102-166, § 105, 105 Stat. 1071, 1074 (1991). The language, however, was not inserted into other anti-discrimination statutes, such as the Age Discrimination in Employment Act and the Fair Housing Act. Where the Civil Rights Act modifies the common law, then, complex questions can arise about whether the Act’s language should also apply to these other antidiscrimination statutes. See, e.g., *Berlett v. Cargill, Inc.*, 780 F. Supp. 560, 562 n.8 (N.D. Ill. 1991) (discussing Civil Rights Act’s application under the Age Discrimination in Employment Act); *Cato v. Jilek*, 779 F. Supp. 937, 943-44 & n.19 (N.D. Ill. 1991) (discussing Civil Rights Act’s application under the Fair Housing Act). These issues are important, but are outside the scope of our primary focus.

11. More formally, the model requires (1) that a population be identified, (2) that the pass rates for the protected and non-protected classes be determined, and (3) that the two pass rates be compared to determine if the difference is sufficiently large to be legally cognizable. Thus, if the employment practice is a test that eliminates 50% of black applicants and no white applicants from consideration: (1) the population consists of all applicants taking the test, (2) the pass rate for black and white applicants is 50% and 100% respectively, and (3) the ratio of black-to-white pass rates is 50%, which is sufficiently small to satisfy the generally accepted four-fifths rule for determining that a disparate impact exists. The four-fifths rule is described *infra* at note 22.

12. In part II *infra* we provide a fuller description of concurrence and a number of more detailed examples. See *infra* notes 17-25 and accompanying text.

“particular employment practice” causes a disparate impact?¹³ Or assume that both practices cause a disparate impact if all applicants are considered and that the test, but not the high school diploma requirement, is business justified.¹⁴ In this situation, if the two practices tend to screen out the same applicants, it is possible that the high school diploma requirement (which, remember, *does* have a disparate impact if all applicants are considered) would *not* have a disparate impact if only applicants who meet the employer’s legitimate practice (the test) are considered.¹⁵ Has the plaintiff established a *prima facie* case against the high school diploma requirement, or has she failed to show that it “causes” a disparate impact? We call this type of situation—situations in which employers use two or more practices relevant to disparate impact determination—concurrency.

Second, we focused on situations in which the employer uses only one employment practice explicitly (e.g., a test), but the practice applies to a heterogeneous population (e.g., one whose members have different levels of education). Once again, many permutations are possible.¹⁶ Assume, for example, that an employer uses a test as a screening mechanism and that some applicants have a high school diploma and others do not. It is possible that the test might have a disparate impact upon black applicants if all applicants are considered, but no disparate impact on black applicants in either of the two possible subgroupings: applicants with and applicants without a high school diploma. If a plaintiff shows this, has he demonstrated that the test *causes* a disparate impact? Similarly, it is possible that the test might not have a disparate impact against black applicants overall, but have a disparate impact in each of the two subgroupings. Once again, does this establish a *prima facie* case, or not? We call this type of situation—situations in which employers use one criterion but apply it to a heterogeneous population—stratification.

In this Article, we use both concurrency and stratification as lenses to obtain a better view of the disparate impact model and as objects of study in their own right. We begin in Part II by describing

13. We address this point in parts II and IV.A. *infra*.

14. Proving that an employment practice is “business justified” is the primary defense to a disparate impact claim. If an employer can demonstrate that a practice is “job related for the position in question and consistent with business necessity,” the employer can continue to use the practice, despite its disparate impact. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993).

15. This scenario is pursued further in part III *infra*.

16. In part II we provide an extended description of stratification and a number of more detailed examples. See *infra* notes 26-39 and accompanying text.

the two concepts in more detail. We define concurrence and stratification and provide numerical examples of the principal possibilities. In addition, we distinguish the two concepts from other situations with which they might be confused. In Part III, we use concurrence and stratification as lenses to deconstruct the disparate impact model. These lenses help us to see the disparate impact model in a new way—to discern its features better, to isolate the principal ways in which it is distinct from the disparate treatment model, to see mistakes in how others have viewed the model, and to think again and more productively about the model's underlying purpose. In Part IV, we turn to the lenses themselves and explore the appropriate legal treatment of concurrence and stratification, keeping in mind the insights gained from Part III. Concluding remarks are provided in Part V.

II. DESCRIBING THE LENSES: CONCURRENCE AND STRATIFICATION

In this section we present a set of numerical examples to illustrate the concurrence and stratification lenses.¹⁷ Although the lenses themselves are conceptual in nature,¹⁸ a full understanding of how they operate, and what their implications are for disparate impact analysis, is best achieved by viewing numerical demonstrations of the power of the lenses in hypothetical disparate impact situations.¹⁹ As

17. The reader who is willing to accept on faith that paradoxical or apparently contradictory situations can arise in disparate impact analysis depending on how variables are considered together may wish to move directly to part II.C, *infra*. We recommend, however, that readers bear with us and examine carefully the examples we present in this section. The types of paradoxes we present are similar to those that have plagued social science, *see infra* note 33, and in turn, have affected public policy. We think these examples will help readers to develop an awareness of the problem.

18. That is, we can describe concurrence and stratification from nonnumerical, conceptual perspectives. Both concurrence and stratification represent situations in which, when we consider two or more factors together with regard to a single issue, the implications for the issue appear different than when we examine each factor individually.

Concurrence and stratification are distinguishable on a conceptual dimension as well. Concurrence requires that we put the two or more factors on "equal footing"—i.e., none of the factors is targeted as more important; we consider all of the factors to be interchangeable in level of importance. Stratification requires that one factor (or possibly more) is the target factor of interest, while the other factors play a secondary role in helping us to understand the implications created by the target factor. This conceptual distinction emerges more fully beginning with part II.C, *infra*.

19. Although the data in each example are hypothetical, there is nothing particularly contrived about these data. Instead, the hypothetical situations are quite realistic (at least numerically), and the apparently conflicting inferences that we draw from these examples could easily occur in real employment situations.

we shall see in the following discussion, both lenses lead to new insights and considerations in determining how an impact is to be determined. Ultimately, therefore, they help us to rethink the standards for legal causation in disparate impact analysis.

A. *The Concurrence Lens*

The concurrence lens applies when an employer uses two or more selection mechanisms or components together as part of the overall selection process. The concurrence lens demonstrates that an employer's selection mechanisms, when considered in isolation from each other, may reveal a different outcome about disparate impact than when the mechanisms are considered jointly. To see this, consider the data given in Table 1.

TABLE 1: CONCURRENCE EXAMPLE I

	<u>Diploma</u>	<u>No Diploma</u>	<u>Totals</u>
At Least 5 Years Experience	70 women 400 men	30 women 10 men	100 women 410 men
Less Than 5 Years Experience	130 women 350 men	10 women 60 men	140 women 410 men
Totals	200 women 750 men	40 women 70 men	240 women 820 men

If the employer depicted in Table 1 requires applicants to have both a high school diploma and at least five years of related job experience in order to be considered qualified, then only 70 women and 400 men in the relevant population meet this definition of qualified. Assuming that the relevant population consists of 240 women and 820 men,²⁰ the pass rates for women and men based on overall qualification are 70/240 or .29 and 400/820 or .49, respec-

20. Population issues and their relationship to concurrence will be discussed *infra* in part II.C.2.

tively.²¹ A disparate impact would be evident by the four-fifths rule²² because the ratio of the pass rate for women to the pass rate for men is .29/.49, or .59.²³ Because the pass rate for women is only 59% of the pass rate for men, the employer's use of *both* selection mechanisms to determine who is qualified produces a disparate impact on women.

Suppose, however, that the women challenging the two selection mechanisms were required to show the disparate impact of *each* selection mechanism separately. Is it necessarily true that two mechanisms operating together to produce an impact will also show a similar impact when examined separately? The answer is no, as seen from Tables 2 and 3. Table 2 replicates the educational requirement data from Table 1 (i.e., it represents the "totals" data in the last row of Table 1); Table 3 similarly replicates the experience data totals from the last column of Table 1.

21. Pass rates (or selection rates) are the percentage of a protected class category that "pass" or meet the qualification criteria. We use the term "pass rate" rather than the synonym "selection rate," because in fact not all applicants or employees who "pass" the required criteria for qualification are actually selected.

The reader should suspend legal judgment regarding the appropriateness of considering both employer criteria for qualification together. The legal issues will be discussed later. See *infra* part IV. For now, we are merely concerned with introducing the mathematical or statistical possibilities of what could actually happen in employment situations in which the employer uses two (or more) criteria as part of the selection process.

22. The four-fifths rule is the dominant approach for determining whether an employer's selection criterion has systematically damaged the plaintiff's protected class status. The EEOC states the rule as:

A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded . . . as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded . . . as evidence of adverse impact.

29 C.F.R. § 1607.4(d) (1994).

Alternatively, some courts have relied on a test of statistical significance to determine whether the pass rates for the plaintiff class and the comparator group are different. See PAETZOLD & WILLBORN, *supra* note 5, § 5.07, for a discussion of the use of statistical significance in disparate impact cases.

In general, the mathematical and statistical issues that we present in this paper do not rely on any one methodology for measuring disparate impact. In other words, the concurrence and stratification lenses that we consider are meaningful regardless of whether the four-fifths rule or statistical significance is used to establish the existence of a disparate impact. For simplicity, we will evaluate our examples under the four-fifths rule alone.

23. For simplicity, many calculations in part II are made to only two decimal places. This can produce round-off error; i.e., it can lead to error in the final numerical outcome as a result of rounding that occurs in intermediate calculations. Calculations using as many decimal places as possible would minimize the round-off error, but would not be particularly enlightening for our discussion.

TABLE 2: EDUCATION ALONE

	<u>Women</u>	<u>Men</u>	<u>Total</u>
Diploma	200	750	950
No Diploma	40	70	110
Total	240	820	

TABLE 3: EXPERIENCE ALONE

	<u>Women</u>	<u>Men</u>	<u>Total</u>
At Least 5 Years Experience	100	410	510
Less Than 5 Years Experience	140	410	550
Total	240	820	

From Table 2, the pass rate for women based on educational attainment alone is $200/240$, or $.83$, while the pass rate for men is $750/820$, or $.91$. Because $.83/.91 = .91$, the four-fifths requirement is met, and the diploma requirement does not have a disparate impact on women. Table 3 shows that the pass rate for women based on experience alone ($100/240 = .42$) is 84% of the pass rate for men ($410/820 = .50$), indicating that the four-fifths rule would not signal a disparate impact for that criterion either. Thus, even though the two criteria produce a disparate impact when used together, neither criterion individually has a disparate impact on women.

The reverse is also possible: Two criteria may each produce a disparate impact when considered individually, but fail to produce one

when considered together. For example, consider a group of 200 women and 700 men distributed as illustrated in Table 4.²⁴

TABLE 4: CONCURRENCE EXAMPLE II

	<u>Diploma</u>	<u>No Diploma</u>	<u>Totals</u>
At Least 5 Years Experience	70 women 300 men	30 women 200 men	100 women 500 men
Less Than 5 Years Experience	30 women 200 men	70 women 0 men	100 women 200 men
Totals	100 women 500 men	100 women 200 men	200 women 700 men

For this particular distribution of men and women, 70 women and 300 men have *both* qualifications; the pass rate for women based on both qualifications together is $70/200 = .35$; the comparable pass rate for men is $300/700 = .43$. Thus, the four-fifths rule apparently indicates that there is no disparate impact ($.35/.43 = .81$). In other words, when considering both employer requirements together, no disparate impact exists.

Each employer requirement considered by itself, however, *does* exclude women disproportionately. For the education requirement alone, only 100 of 200 women (50%) have a diploma, whereas 500 of 700 men (71%) have a diploma. The four-fifths rule indicates a disparate impact for the diploma requirement because $50\%/71\% = 70\%$. Similarly, because the numbers are identical for the experience requirement,²⁵ a disparate impact on women exists for this requirement as well.

The concurrence lens provides a new view of disparate impact analysis by focusing on the differing pictures that selection criteria can give, depending upon whether they are viewed separately or together. Examining factual evidence through the lens of concurrence suggests a revisiting of how impact is measured: Should employer re-

24. Once again, we assume this to be the relevant population for the purpose of this analysis. See *infra* part II.C.2.

25. In other words, 100 of 200 women (50%) have at least five years of experience, and 500 of 700 men (71%) have at least five years of experience.

quirements for qualification be considered together when assessing impact, or should each requirement's impact be evaluated by itself? The concurrence lens makes clear that whether a disparate impact exists may depend on how the employer's requirements are considered. Therefore, the legal rule regarding how criteria are to be considered can determine the legal outcome.

B. *The Stratification Lens*

The stratification lens applies to situations in which an employer uses a selection mechanism or criterion that is being applied to a heterogeneous group of potential employees.²⁶ Suppose that an employer subjects applicants to a selection test, which they must pass in order to be eligible for employment. A fixed cut-off score is used to determine those individuals who pass the exam. The test is being challenged as having a disparate impact on women. What quantitative evidence can be used to establish that there is a disparate impact on women?

In a typical disparate impact case, the plaintiff would establish a prima facie case of disparate impact discrimination by showing an aggregate impact on her protected class.²⁷ Thus, for example, if the data revealed the pattern indicated in Table 5, the plaintiff would be able to show that a disparate impact on women exists. In the aggregate, the pass rate for women is less than four-fifths of the pass rate for men ($.50/.66 = .757$).

26. Assume that the employer has requested education information about applicants, and that the information that has been maintained by the employer indicates only whether the applicant has a college degree. This information will be used to construct the stratifying variable. See, e.g., *infra* Tables 6 and 7. We assume throughout the discussion of the stratification examples that the employer does not use education as a criterion for selection.

27. The prima facie requirements for a case of disparate impact have typically been applied to aggregate data. See *infra* part III.

It is assumed that all applicants over a relevant time period who have taken the exam are included in Table 5. It is also assumed that the applicant pool is the appropriate proxy for the population that would be ready, willing, and able to fill the job at issue. Thus, there is no concern that the population is too broadly or too narrowly defined in this instance. See *infra* part II.C.2.

TABLE 5: AGGREGATE TEST DATA I

	<u>Pass</u>	<u>Fail</u>	<u>Total</u>	<u>Pass Rate</u>
Men	400	200	600	.66
Women	200	200	400	.50
Total	600	400	1000	.60

The aggregate analysis based on Table 5 data did not consider whether performance on the test may be associated with any factors other than sex. These other factors, however, may affect disparate impact analysis to the extent that they are associated *both* with sex *and* with the pass rates. For example, educational level is a variable that may differ across sex (and would therefore be “associated” with sex) *and* that may be associated with different pass rates. When we consider the educational level of the test-takers in our hypothetical, we get the results obtained in Table 6.

TABLE 6: STRATIFICATION I OVER TABLE 5 DATA

	<u>Pass</u>	<u>Fail</u>	<u>Total</u>	<u>Pass Rate</u>
<i>Non-College Graduates</i>				
Men	150	200	350	.43
Women	115	180	295	.39
<i>College Graduates</i>				
Men	250	0	250	1.00
Women	85	20	105	.81

For this demographic breakdown of men and women, note that the pass rates for men and women *within* the same level of educational background are similar in magnitude.²⁸ In other words,

28. At this point we consider the levels of educational background independently of each other in comparing men's and women's pass rates because such a comparison reveals the difficulty associated with the presentation in Table 5. However, for many stratification

for non-college graduates, the pass rate for women is 91% of the pass rate for men (i.e., $.39/.43 = .91$). Similarly, for college graduates, the pass rate for women is 81% of the pass rate for men (i.e., $.81/1.00 = .81$). Both pass rate ratios satisfy the four-fifths rule and, hence, indicate no disparate impact.

By considering the additional variable—educational level—our inference about the relationship between protected class and passing the exam appears to have changed.²⁹ For the aggregate data (presented in Table 5), an inference of disparate impact on women has been demonstrated using the four-fifths rule. For the *stratified* (or equivalently, *disaggregated*) data (the Table 5 data broken down by two levels of education in Table 6), no disparate impact on women can be inferred within either of the two levels. Thus, consideration of a third factor may well affect the nature of the appropriate legal inferences.

Now consider another variation of Table 5, which may once again alter our inferences by considering the educational level of those persons taking the test. The test-takers are now distributed across educational levels as indicated in Table 7.

TABLE 7: STRATIFICATION II OVER TABLE 5 DATA

	<u>Pass</u>	<u>Fail</u>	<u>Total</u>	<u>Pass Rate</u>
<i>Non-College Graduates</i>				
Men	300	200	500	.60
Women	80	20	100	.80
<i>College Graduates</i>				
Men	100	0	100	1.00
Women	120	180	300	.40

situations it is inappropriate to make any statistical inferences for individual levels. Information from the levels would be pooled to create one summary inference regarding the relationship between pass rate and sex. See *infra* note 232 and accompanying text.

29. The reader should suspend judgment on the appropriateness of the use of education to evaluate the effect of the test on the protected class. Legal arguments appear in part IV *infra*. For now, we are concerned only with inferences that would seem to be appropriate *given* that we accept the appropriateness of education as a factor relevant to the issue of disparate impact.

For this breakdown of men and women across educational level, a very different pattern emerges than the one seen in Table 6. Here, for those persons who are non-college graduates, the pass rate of women is actually *greater than* the pass rate of men! No inference of disparate impact on women would be warranted for this group.³⁰ Within the group of college graduates, however, the pass rate for women is only 40% of the pass rate for men, providing strong evidence of a disparate impact on women. The four-fifths rule, if applied to this level, would give rise to an inference that a disproportionate percentage of women have failed the test.³¹ A conflict emerges in the pass rate evidence based on the two possible levels of educational attainment.

For the same aggregate data (as presented in Table 5), we have now seen two very different possible stratifications over educational level. Perhaps the first stratification (Table 6) is the more striking: Even though, in the aggregate, a disparate impact on women seems apparent, any statistical evidence of a disparity associated with the test completely disappears with the introduction of two levels of education!³² The outcome seems paradoxical, and is in fact referred to as one type of "aggregation paradox."³³ In this type of aggregation paradox, statistically inappropriate aggregation over a third variable (here, as when education is ignored in Table 5) produces the apparent disparity. Statistical inferences based on the aggregation are unreliable, because the third variable *confounds* the relationship between sex and pass rate.³⁴ In these situations, the "true" relation-

30. In fact, an inference of a disparate impact on men could be warranted. In other words, men could demonstrate that their pass rate is only 75% of the pass rate for women (i.e., $.60/.80 = .75$), thereby supporting a showing of disparate impact under the four-fifths rule.

31. See *supra* note 22.

32. Here we mean that for each of the two levels, there is no evidence of a disparate impact. Once again, creation of one summary measure across these two levels to assess whether a disparate impact exists may be appropriate. See *supra* note 28.

33. Aggregation paradoxes are well-known in the statistics literature, and to a lesser extent, in the social science literature. See, e.g., Joel E. Cohen, *An Uncertainty Principle in Demography and the Unisex Issue*, 40 AM. STATISTICIAN 32 (1986); M.J. Goddard, *Constructing Some Categorical Anomalies*, 45 AM. STATISTICIAN 129 (1991); Clifford H. Wagner, *Simpson's Paradox in Real Life*, 36 AM. STATISTICIAN 46 (1982).

34. In general, a third variable has a confounding effect when the *direction* of the relationship between the other two variables is unaltered, but the *magnitude* of the relationship changes. In other words, the presence of a confounding variable either strengthens or weakens the aggregate relationship between two other variables. Further consideration of legal issues when "confounding variables" are involved appears in part IV.B *infra*.

ship between sex and pass rate cannot be known without stratifying over the third variable.³⁵

The second stratification (Table 7) raises a somewhat different issue. Here, the aggregate disparity between men and women results from a disparity for one category of persons only—those having a college degree. For the other category, the *opposite* legal inference—that of a disparate impact on men—exists. This type of effect by a stratifying variable produces what is called a *moderating effect* or an *interaction*.³⁶ Once again, the “true” relationship between sex and pass rate cannot be fully understood without stratifying over the third variable. In this situation, however, the actual direction of the relationship between sex and pass rate changes, depending on the level of the stratifying variable. Thus, any disparate impact on women that the test imposed could only be said to exist for those persons who are college graduates, and an opposing statistical relationship would exist for those persons who are not college graduates.

Finally, let us consider one more example of potential problems with aggregation in disparate impact analysis. Consider Table 8.

TABLE 8: AGGREGATE TEST DATA II

	<u>Pass</u>	<u>Fail</u>	<u>Total</u>	<u>Pass Rate</u>
Men	50	60	110	.45
Women	60	40	100	.60

Here, there is no apparent disparate impact on women for these aggregate data.³⁷ A stratifying variable, however, may possibly reveal the existence of a disparate impact for women within each of its levels. In Table 9, the test disadvantages women in each of two levels of education.

35. Less extreme examples can also reflect the effects of confounding. As long as the pass rate of women remains less than the pass rate of men for each educational level, but the magnitude of the relationship between the pass rates changes so as to produce different inferences, a confounding relationship exists.

36. The moderating effect or interaction exists *in addition to* a confounding effect; in other words, confounding is also always present when moderation or interaction occurs.

37. The absence of an impact is apparent in the fact that the pass rate for women is actually higher than the pass rate for men. Once again, we assume that the appropriate population has been considered for this analysis. See *infra* part II.C.2.

TABLE 9: STRATIFICATION OVER TABLE 8 DATA

	<u>Pass</u>	<u>Fail</u>	<u>Total</u>	<u>Pass Rate</u>
<i>College Graduates</i>				
Men	20	0	20	1.00
Women	60	20	80	.75
<i>Non-College Graduates</i>				
Men	30	60	90	.33
Women	0	20	20	.00

For college graduates the women's pass rate is only 75% of the men's; for non-college graduates, the pass rate of women is zero, but it is substantially higher (.33) for men.³⁸ Thus, it is possible for no disparate impact to exist in the aggregate, even though within some or even all levels of a stratifying variable, the impact *does* exist.

The stratification lens thus makes clear that consideration of the employer's selection mechanism alone does not resolve all issues regarding the cause of an impact.³⁹ When the factual evidence is

38. The pass rates for non-college graduates highlight one difficulty with the four-fifths rule: If the pass rate for the plaintiff group is zero, then the four-fifths rule always provides a showing of an adverse impact. In other words, the pass rate of zero divided by any positive pass rate for the comparator group will be zero, which is less than eighty percent.

Statistical significance can reveal whether the zero pass rate for women appears to be significantly different than the pass rate for men. In our example, it may seem intuitively clear that zero and .33 are significantly different from each other. If the pass rate for men had been .10, or perhaps .05, it would not seem as intuitively clear, however. Statistical significance can provide a somewhat more rigorous test of our intuition by relying on probability theory to determine when two percentages are different from each other. See, e.g., JOSEPH L. FLEISS, *STATISTICAL METHODS FOR RATES AND PROPORTIONS* chs. 5-6 (2d ed. 1981); HAROLD J. LARSON, *INTRODUCTION TO PROBABILITY THEORY AND STATISTICAL INFERENCE* ch. 7 (3d ed. 1982).

Notice that in Table 9 it is not the "inexorable zero," *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 342 n.23 (1977) (considering systemic disparate treatment), that produces the apparent impact for non-college graduates; even if one woman had passed the test and 19 had failed, there would still be an impact under the four-fifths rule.

39. This is true regardless of whether the employer uses only one selection mechanism or multiple selection mechanisms. Even within the concurrence lens it is possible that stratification over additional factors may reveal a different pattern of inference than would be seen without consideration of the stratifying factors.

viewed through the lens of stratification, the possibility of other, additional factors creating the relationship with protected status becomes problematic. The existence of an impact may be attributable to factors other than those imposed by the employer. Thus, the stratification lens highlights the importance of revisiting the meaning of causation in the disparate impact model.

C. *Distinguishing Concurrence and Stratification from Other Issues*

At first glance, the concurrence and stratification lenses probably conjure up other familiar notions from discrimination law. Issues of aggregation versus more precise specification abound in this area.⁴⁰ For example, "bottom line" issues in employment discrimination law involve consideration of an employer's entire selection process, thereby implicating more than one selection mechanism. Thus, "bottom line" issues seem to be closely connected with concurrence. Similarly, selection of an appropriate population against which to measure the potential adverse impact may, at first glance, seem to subsume both concurrence and stratification lenses. Selecting an appropriate population depends on notions of how an employer would

A more detailed discussion of multiple causation and the disparate impact model appears in part III *infra*.

40. One important class of problems that is tangentially related to our discussion involves plaintiffs having more than one protected class status. Whether the multiple protected class statuses should be considered simultaneously continues to be an important legal issue, particularly for academics. See, e.g., Kathryn Abrams, *Title VII and the Complex Female Subject*, 92 MICH. L. REV. 2479, 2497-98 (1994) (arguing that the courts should be more responsive to claims of discrimination against more than one protected classification); Kimberle Crenshaw, *Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics*, 1989 U. CHI. LEGAL F. 139, 166-67 (arguing that the courts fail to recognize race-sex claims and that this failure marginalizes the experiences of non-white women); Elaine W. Shoben, *Compound Discrimination: The Interaction of Race and Sex in Employment Discrimination*, 55 N.Y.U. L. REV. 793, 807-11 (1980) (labeling discrimination based on a combination of protected statuses as compound discrimination and proposing a statistical methodology for analyzing such claims); Judith A. Winston, *Mirror, Mirror on the Wall: Title VII, Section 1981, and the Intersection of Race and Gender in the Civil Rights Act of 1990*, 79 CAL. L. REV. 775, 796-97 (1991) (arguing that claims of race-based gender discrimination are analytically distinct from race or gender claims and, thus, require a distinct legal construct).

Additionally, whether categories within a protected class status should be aggregated to measure disparate impact is an important and problematic issue for courts. See, e.g., *Guinyard v. City of New York*, 800 F. Supp. 1083, 1089 (E.D.N.Y. 1992) (considering whether blacks and Hispanics should be aggregated because they might face similar employment problems).

Although these issues are interesting, their tangential nature requires that we withhold further discussion of them for a later day.

have made selections in the absence of discrimination. Thus, it calls into question the employer's stated qualifications for a job and seems to require designation of a fairly homogeneous group of potential applicants. Both of these areas relate to, and shed light on, the concurrence and stratification lenses, but are distinguishable from them. Also, consideration of these other notions helps us to delineate further the distinctions between concurrence and stratification themselves.

1. Bottom Line Issues

A "bottom line" impact, or the lack thereof, is a well-known concept in disparate impact analysis.⁴¹ The bottom line issue arises in employment discrimination cases only when a selection system has at least two levels: an initial screening level (or levels), and a "bottom line" level at which the ultimate employment decision is made. For example, in *Connecticut v. Teal*,⁴² the leading bottom line case, persons interested in promotion first had to pass an initial screening level by attaining a certain score on a written examination. Then promotions were made "at the bottom line" based on prior work performance, recommendations, and seniority from among those who had "passed" the examination.⁴³ Although bottom line issues may appear to overlap with concurrence or stratification issues, important distinctions exist.

a. Distinguishing Concurrence from Bottom Line

There are really two ways in which the concept of "bottom line" can be interpreted, based on two different readings of *Teal*. There the "bottom line" referred to the overall outcome of the selection process, in which the promotion rate for blacks was nearly 1.7 times *greater* than the promotion rate for whites.⁴⁴ Thus, the ultimate

41. The leading case is *Connecticut v. Teal*, 457 U.S. 440 (1982), which held that the absence of a disparate impact at the bottom line is not a defense to a disparate impact claim. *Id.* at 442. A considerable body of literature has analyzed *Teal* and the bottom line issue. See, e.g., Alfred W. Blumrosen, *The Group Interest Concept, Employment Discrimination, and Legislative Intent: The Fallacy of Connecticut v. Teal*, 20 HARV. J. ON LEGIS. 99 (1983); Chamallas, *supra* note 6.

42. 457 U.S. 440 (1982).

43. *Id.* at 444.

44. *Id.* at 440 & n.6. In *Teal*, the employer argued that no disparate impact had occurred because, of all persons who were in the initial selection pool, the proportion of blacks who were promoted was greater than the proportion of whites who were promoted. *Id.* at 440 n.6. Alternatively, the employer could have argued that no disparate impact had occurred because, of those persons who passed the test, the proportion of blacks who went

focus was on the employer's final employment-related decision—who was hired, promoted, or fired. *Teal* held that employers could not use this “bottom line” as a defense to a selection mechanism (an examination) that resulted in a disparate impact.⁴⁵ Thus, although as a class, blacks fared better than whites in terms of the percentage promoted, the use of the examination to determine who was qualified to be promoted still excluded some individual blacks.⁴⁶

A narrow reading of *Teal* would suggest that the prohibited “bottom line” defense is restricted to those cases in which the bottom line reflects the employer's actual selection decision. In other words, the employer could not rely on what appears to be “good citizenship” behavior in actual hiring or promotion practices to absolve itself of liability for the use of selection mechanisms that erect barriers for one or more groups. Under this interpretation, concurrence is distinguishable from “bottom line” issues. Concurrence, in general, does not concern the employer's final decision, but instead concerns only whether the screening levels (qualifying variables) should be considered separately or together.⁴⁷ Thus, in this sense the concurrence issue precedes any “bottom line” issues.

A broader reading of *Teal*, however, suggests that concurrence and “bottom line” issues overlap. The rationale for the Court's decision was that Title VII prohibits practices that tend to deprive any individual of employment opportunities.⁴⁸ Thus, even though blacks *as a class* had a higher promotion rate than whites, the examination

on to be promoted was greater than the proportion of whites who went on to be promoted. The first argument considers the effect of the screening and selection levels together, and is therefore a *simultaneous* depiction of the bottom line. The second argument depends on an analysis of those persons who survived the initial screening level, and this is a bottom line argument *subsequent* to the initial screening level. The Court's discussion in *Teal* made clear that the Court rejected both types of bottom line arguments. *See id.* at 448-51, 453-56.

45. *Id.* at 450-51.

46. *Id.* at 452-56.

47. For example, in Tables 1 and 4 the two screening levels were qualifying variables involving education and experience. The employer need not have hired all of those who satisfied both qualifications. The concurrence issue was whether the effect of the two screening qualifications should be considered together or separately in assessing the pool of applicants *available for hire*.

Admittedly, however, there could be instances in which an initial screening level and the remaining selection process could be two components that would be considered together, perhaps because the remaining selection process was so subjective that it could not be further separated for analysis. In this instance, the use of the initial screening level with the remaining selection process would be an example of concurrence, and would involve the employer's ultimate selection decisions.

48. *Teal*, 457 U.S. at 453-56.

disproportionately excluded individual blacks who then had no opportunity for promotion. This reading indicates that concurrence and bottom line issues can overlap, because individual employment mechanisms may disproportionately exclude individuals of a minority group, yet considered concurrently, the mechanisms do not tend to disadvantage the group.⁴⁹ This possible overlap will be revisited later.⁵⁰

b. Distinguishing Stratification from Bottom Line

Bottom line issues are always distinct from stratification issues, because bottom line issues can arise only when two or more employment practices are in play—one (or more) at a screening level and one (or more) at the bottom line level. Stratification issues arise when a single employment practice is applied to a heterogeneous group. The stratifying variable is never an actual employment practice.⁵¹

c. Relevant Implications of Bottom Line Analysis

Bottom line analysis emphasizes causation, which is important for both the concurrence and stratification lenses. The causation issue arises in two distinct ways.

First, what should happen when a screening level has a disparate impact, but none exists at the bottom line? *Connecticut v. Teal*,⁵² and later the Civil Rights Act of 1991,⁵³ indicate that the bottom line is irrelevant in this situation. A plaintiff establishes a prima facie case of disparate impact discrimination by demonstrating that the screening level has a disparate impact; an employer cannot defend by demonstrating that no disparate impact exists at the bottom line. Instead the employer must demonstrate that business necessity justifies the screening level practice.⁵⁴

49. See *supra* Table 4 and corresponding textual discussion.

50. See *infra* part IV.A.

51. Whether the test and the final promotion decision in *Teal* should be considered separately, or in conjunction with each other, falls within our concurrence lens because both stages are part of the employer's selection procedure. The stratification lens is different, because it presents analytical issues that arise when the stratifying variable does not represent an actual employer selection procedure.

52. 457 U.S. 440 (1982).

53. Title VII, § 703(k), 42 U.S.C. § 2000e-2(k) (Supp. V 1993).

54. This is true regardless of whether the "bottom line" analysis relied on is the "subsequent" or "concurrent" version. See *supra* note 44.

The courts have also considered the proper outcome when a disparate impact exists at the bottom line, but there is either no evidence as to whether a disparate impact exists at prior screening levels or evidence that no disparate impact exists at one or more of the prior levels. The Supreme Court⁵⁵ and, once again, the Civil Rights Act of 1991⁵⁶ make clear that it is part of the plaintiff's burden to indicate the particular screening level that produces the disparate impact. Evidence of a disparate impact at the bottom line, without more, is insufficient to make out a prima facie case.⁵⁷ The Civil Rights Act of 1991,⁵⁸ however, permits the plaintiff to make out a prima facie case based on a disparate impact at the bottom line if the plaintiff can prove that the prior screening levels "are not capable of separation for analysis."⁵⁹ In this situation, the employer need not prove business necessity for a particular screening level if it can demonstrate that the employment practice at that level does not have a disparate impact.⁶⁰

Whether or not prior screening levels are capable of separation for analysis implicates the concurrence issue. In Tables 1 and 4, for example, education and experience were clearly separable factors in the employer's set of requirements for qualification; not only are they conceptually different, but discrete data exists on each. Nevertheless, they are arguably not separable for analysis, because the employer uses them together as a screening device; therefore their joint effect cannot be determined without considering them concurrently. If the rationale for requiring the plaintiff to isolate the particular employment practice is to increase the precision in identifying an impact's *cause*⁶¹ then the requirement should not be used to eliminate concurrence arguments. Concurrence provides a more precise picture of whether, and why, an impact exists. Because congressional concern was with undifferentiated "bottom line" statistics, in which the effects of prior screening levels are unknown,

55. *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642, 656-58 (1989) (holding that the plaintiff must identify the particular screening level alleged to create a disparate impact); *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977, 994 (1988) (plurality opinion) (indicating that the particular subjective criterion must be identified by plaintiff).

56. Title VII, § 703(k)(1), 42 U.S.C. § 2000e-2(k)(1) (Supp. V 1993).

57. See *supra* notes 55 and 56.

58. Title VII, § 703(k)(1), 42 U.S.C. § 2000e-2(k)(1) (Supp. V 1993).

59. Title VII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993). For a discussion of this issue, see *infra* part IV.A.1.

60. Title VIII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

61. A further discussion of the key role of causation, and the tangential role of the particular employment mechanism appears in part III *infra*.

the requirement that plaintiffs identify the mechanism that produces the disparate impact should not prohibit concurrence arguments. In these types of situations, evidence concerning the prior screening levels is known, and the evidence demonstrates that it is precisely the concurrence of two or more such screening levels that produces the disparate impact.⁶²

The "bottom line" concerns reflect the importance of causation in disparate impact analysis, and therefore also shed light on the importance of both concurrence and stratification. The bottom line cases indicate that precision in identifying the employer's role in causing a disparate impact is not only important, but crucial. Consequently, the cases also implicitly suggest that concurrence and stratification are important analytical techniques in disparate impact cases—both are tools for improving the precision of identifying employer causation.

2. Population Issues

Population issues may also be confused with concurrence and stratification issues. A disparate impact is measurable only with respect to a particular population, which must be identified. For example, in *Dothard v. Rawlinson*,⁶³ the Alabama Board of Corrections would only hire prison guards⁶⁴ who met minimum height and weight requirements. The Supreme Court held that the plaintiffs had demonstrated a disparate impact on women based on height and weight statistics for the United States as a whole.⁶⁵ Justice White thought that the plaintiffs had failed to establish a prima facie case because they had not presented any evidence on the height and weight of men and women in the relevant population, that is, persons interested in prison guard jobs.⁶⁶

62. See *infra* part IV.A.

63. 433 U.S. 321 (1977).

64. Prison guards were called "correctional counselors" in the actual case. *Id.* at 323.

65. *Id.* at 329-30 & n.12. The Court used both separate and concurrent statistics to determine that a disparate impact on women existed. The height requirement would have excluded 33.29% of relevant women and only 1.28% of relevant men. *Id.* at 329. The weight requirement would have excluded 22.29% of relevant women and 2.35% of relevant men. *Id.* Together, the height and weight requirements would have excluded 41.13% of relevant women and 0.24% of relevant men. See *id.* at 329-30 & n.12.

Because the focus was on the appropriate population to be used, and not on the types of calculations that could be conducted based on the population, the *Dothard* Court did not address the concurrence issue.

66. *Id.* at 348 (White, J., dissenting). The majority had noted that a showing of adverse impact need not always be based on the actual applicant pool, particularly in

The population issue is important; it can significantly affect whether a cognizable disparate impact exists. But it is not the same as either the concurrence or stratification issues; it logically *precedes* these issues. The appropriate population in a disparate impact case includes those who were subject to the criterion at issue or who would have been subject to it in the absence of discrimination.⁶⁷ It excludes all others. Concurrence or stratification arguments can occur only after that population has been selected. In *Dothard*, for example, the joint (or concurrent) effect of the height and weight requirements would be ascertainable only *after* selection of the population.⁶⁸ Thus, concurrence and stratification operate *within* the appropriate population and, as a result, can only be analyzed after the population has been specified.

D. Court Allusions to Concurrence and Stratification in Disparate Impact Analysis

1. Concurrence

Although disparate impact cases often involve challenges to multiple selection criteria,⁶⁹ few cases have addressed the concur-

situations such as this in which potential applicants could easily determine that they did not meet the height and weight requirements and would therefore be unlikely to apply. *Id.* at 330. The burden was on the defendant to introduce evidence indicating that the United States as a whole was an inappropriate population—i.e., that the heights and weights of those who would seek a job as prison guard in Alabama would be different from those in the national pool. *See id.* at 331. Additional discussion of the population issue in general can be obtained from PAETZOLD & WILLBORN, *supra* note 5, § 5.04.

67. In *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989), the Supreme Court indicated that a population is too broad if it contains persons who would not be applicants for the at-issue job and too narrow if it excludes qualified persons in the labor force who would be interested in the at-issue job. *Id.* at 653-55. As a result, in *Dothard*, the appropriate population needed to include individuals who would have been interested and otherwise qualified for the job, but who did not meet either the height or the weight requirement, or both. The applicant pool was not used as the appropriate population in *Dothard* because, *inter alia*, it might not have reflected all individuals who would have applied for the job, absent the height and/or weight requirements. *Dothard*, 433 U.S. at 330; *see also supra* note 66.

68. Similarly, if it were believed that height and weight would tend to vary with type of diet (used here merely for the sake of argument as a possible stratifying variable that would intuitively relate to an individual's height and weight), the impact on women of using the height and weight requirements when potential employees might have differing diets could only be ascertained upon selection of a population of individuals. A discussion of appropriateness of stratifying variables appears *infra* part IV.B.

69. A multitude of cases involve disparate impact challenges of multiple selection criteria. Two recent cases involving such challenges, and in which the criteria were evaluated separately by the court, are *Legault v. aRusso*, 842 F. Supp. 1479, 1485-87

rence issue explicitly. Prior to *Wards Cove Packing Co. v. Atonio*,⁷⁰ it was not clear that the plaintiff had the burden of isolating the distinct employment practice that was to be challenged. Particularly for subjective employment criteria, courts have allowed plaintiffs to challenge large segments of or even entire selection processes.⁷¹ Thus, the concurrence issue for plaintiffs was not explicitly raised, because there was no focus on whether individual components or criteria would suggest different outcomes than the concurrent application of the components or criteria.

Wards Cove clarified the causation requirement by indicating that the plaintiff had to tie a showing of disparate impact to specific or particular employment mechanisms or selection devices.⁷² Shortly thereafter, the Civil Rights Act of 1991 created an exception for mechanisms or components that were not "capable of separation for analysis."⁷³ Thus, cases arising under this Act would be the ones most likely to raise the concurrence issue. However, the courts have not applied the Act to many disparate impact cases,⁷⁴ so they have not had the opportunity to address the concurrence issue explicitly.

(D.N.H. 1994) (involving challenges to two physical tests for firefighters); and *Davis v. City of Dallas*, 748 F. Supp. 1165, 1173-76 (N.D. Tex. 1990) (involving challenges to three hiring criteria: prior marijuana use, college education, and driving record).

70. 490 U.S. 642 (1989).

71. In *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977 (1988), the Supreme Court first noted that even subjective selection mechanisms were subject to a stricter causation analysis, requiring plaintiffs to identify the specific practice that they were challenging. *Id.* at 994-97.

72. The Supreme Court noted that:

a Title VII plaintiff does not make out a case of disparate impact simply by showing that, "at the bottom line," there is racial *imbalance* in the work force. As a general matter, a plaintiff must demonstrate that it is the application of a specific or particular employment practice that has created the impact under attack.

Wards Cove, 490 U.S. at 657.

73. Title VII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

74. A Westlaw search for the phrase "capable of separation for analysis" generated only six cases (Allfeds database, September 1995). In only one of these cases is the issue addressed. *Graffam v. Scott Paper Co.*, 870 F. Supp. 389, 395 (D. Me. 1994). Plaintiffs in *Graffam* challenged the selection process as a whole. *Id.* at 395. Although the court did not require the plaintiffs to prove that the components were not capable of separation for analysis, the court accepted the entire selection process as the "one employment practice" that was to be scrutinized, noting that any other approach "would completely exempt the situation where the adverse impact is caused by the interaction of two or more components of the process." *Id.*

2. Stratification

Very few disparate impact cases have recognized the importance of stratification for assessing disparate impact. In only one circuit have courts begun to address the issue seriously, and none of the circuits have considered it carefully. The cases, however, have hinted at the type of burden shifting that should occur when stratification is an issue.

The Seventh Circuit has led the way in recognizing that aggregate analyses may not be reliable evidence of a disparate impact. In *Allen v. Seidman*,⁷⁵ a group of black bank examiners employed by the Federal Deposit Insurance Corporation challenged a test used in making promotion decisions. Overall, thirty-nine percent of the black candidates for promotion passed the test compared to eighty-four percent of white candidates.⁷⁶ The defendants questioned this disparity, arguing that the group of test-takers was not homogeneous.⁷⁷ The defendants argued that an affirmative action program may have meant that black test-takers had inferior entry qualifications and that they had fewer years of experience before applying for promotion and taking the tests.⁷⁸ Perhaps, the court mused, these two characteristics (entry qualifications and years of experience), rather than race, caused the disparity.⁷⁹ The court recognized that such a stratification might be relevant, but it rejected the specific stratification argument because the employer-defendant had not introduced any studies indicating that stratification would have eliminated the aggregate disparity that the plaintiffs had demonstrated.⁸⁰

75. 881 F.2d 375 (7th Cir. 1989). In an even earlier case, *Coates v. Johnson & Johnson*, 756 F.2d 524, 540 (7th Cir. 1985), the Seventh Circuit noted that plaintiffs attempting to make out a prima facie case of disparate impact must take into account the most common nondiscriminatory reasons for the allegedly unfair employment practice. Placing the burden to stratify on plaintiffs conflicts with the Seventh Circuit's later decision in *Allen*, 881 F.2d at 379-80, and we disagree with it. See *infra* part IV.B. Our focus at this point, however, is not on assigning burdens but on judicial recognition of the importance of stratification.

76. *Allen*, 881 F.2d at 378.

77. *Id.* at 379-80.

78. *Id.*

79. We do not wish to be read as endorsing the idea that affirmative action programs lead to the admission of minorities having inferior skills or qualifications. We use this example merely to illustrate a stratification argument.

80. *Allen*, 881 F.2d at 379-80.

Similarly, in *Davidson v. Board of Governors*,⁸¹ a university compensation scheme was challenged as producing a disparate impact based on age. The Seventh Circuit declined to decide whether disparate impact analysis is available in age discrimination cases, but noted that if it were, stratification of salary data by job tenure would be necessary in order to control for the market effect built into newer faculty members' salaries.⁸² For any given group of faculty salaries deemed relevant for salary comparison purposes, incoming faculty members' higher market salaries must be "controlled for" (i.e., stratified over) in order to obtain an accurate relationship between salary level and age.⁸³

The concurrence and stratification lenses help to bring to light the many situations that can arise under the rubric of disparate impact analysis. But how should the law treat these situations? In order to prescribe a legal framework for analyzing these more complex situations, it is useful first to use the lenses to gain insights into the essential nature of the disparate impact model. We now turn to this task.

III. USING THE LENSES TO DECONSTRUCT "ORDINARY" DISPARATE IMPACT CASES

Under the disparate impact model, the plaintiff must demonstrate that an "employment practice *causes* a disparate impact on the basis of race, color, religion, sex, or national origin."⁸⁴ Concurrence and stratification complicate analysis of the causation element. Concurrence means that a complete analysis of causation cannot focus on a single employment practice, but instead must consider the causal contributions of two or more practices, if they exist. Stratification requires that the causal effects of the employment practice be analyzed across two or more distinct, homogeneous subpopulations, instead of across only a single, heterogeneous one.

The place to begin analysis of the causation element, however, is not with the relatively few cases discussing concurrence and stratification, but with "ordinary" cases—the vast majority of cases

81. 920 F.2d 441 (7th Cir. 1990).

82. *Id.* at 446.

83. "Controlled for" in compensation examples typically means that a multiple regression analysis is used to examine individual salary levels in a model that explicitly accounts for factors that would produce heterogeneity in compensation. For further discussion, see PAETZOLD & WILLBORN, *supra* note 5, ch. 6.

84. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993) (emphasis added).

that do not consider concurrence or stratification issues. Using concurrence and stratification as lenses to examine the causation element in ordinary cases, where the disparate impact model has been well explored, provides important clues to how the causation element should be treated in the relatively uncharted areas presented by concurrence and stratification.⁸⁵ In addition, and perhaps more importantly, these new lenses permit us to see the disparate impact model more clearly even in ordinary cases. They permit us to bring the model's defining feature into sharper focus, to clarify the model's role in the antidiscrimination effort, and to consider anew the underlying rationale for the model's existence.⁸⁶

A. "Ordinary" Disparate Impact Cases and the Nature of Causation

Let us begin with *Griggs v. Duke Power Co.*,⁸⁷ the prototypical "ordinary" case. Plaintiffs established a prima facie case in *Griggs* by demonstrating that a particular employment practice (the high school diploma requirement) caused a disparate impact on blacks.⁸⁸ The *Griggs* plaintiffs showed causation through evidence of the effect of the employment practice on a relevant population (North Carolina males) differentiated only by protected group status (thirty-four percent of whites and twelve percent of blacks in the population had high school diplomas).⁸⁹ The high school diploma requirement caused⁹⁰ the disparate impact because it screened out a significantly higher proportion of blacks than whites in the relevant population.⁹¹

85. We discuss the appropriate legal treatment of concurrence and stratification in disparate impact cases in part IV, *infra*.

86. We consider these issues in part III.B, *infra*.

87. 401 U.S. 424 (1971).

88. *Id.* at 428-32. The employer in *Griggs* also required employees to achieve a certain score on a standardized general intelligence test. *Id.* For expositional purposes, we ignore the testing requirement for the moment.

89. *Id.* at 430 n.6.

90. It is important to remember that the relevant issue here is *legal* cause, rather than cause in a more rigorous scientific or statistical sense. In science and statistics, cause can never be conclusively established. PAETZOLD & WILLBORN, *supra* note 5, § 2.05. In law, however, and particularly in discrimination law, it is well recognized that statistical evidence alone can be sufficient to prove *legal* causation, International Bhd. of Teamsters v. United States, 431 U.S. 324, 339 (1977), and, indeed, that statistical analysis need not be perfect to have these legal consequences, Bazemore v. Friday, 478 U.S. 385, 400-01 (1986) (*per curiam*).

91. The selection rate for whites and blacks was .34 and .12, respectively. *Griggs*, 401 U.S. at 430 n.6. Therefore, the ratio of black-to-white selection rates was .12/.34, or .35. That ratio easily satisfies the four-fifths rule requirement for a disparate impact to exist. See *supra* note 22.

This framework for analyzing causation focuses on a particular cause (the employment practice) and, as a result, obscures the multiple causation present in *all* disparate impact cases. The employment practice was one cause of the disparate impact in *Griggs*; if the employer had not required a high school diploma, the criterion obviously could not have caused a disparate impact on blacks. But the disparate impact was also "caused" by the social conditions that resulted in a lower proportion of blacks than whites with high school diplomas. The high school diploma requirement would not have caused a disparate impact if social conditions had produced the same proportion of high school graduates within the black and white subpopulations. Every disparate impact case depends on an interaction of at least two "causes" in this sense. In *Griggs*, each of the two relevant "causes" (the employment criterion and the social conditions) was necessary to cause the disparate impact on blacks. If *either* had been absent, no disparate impact would have been present.

This view of *Griggs*, it should be noted, is obtained by using the stratification lens. If we divide the population only into black and white subgroups, the lower proportion of blacks than whites with a high school diploma evidences a connection between race and the diploma requirement. It is possible, however, to account for other differences in the population. The population, for example, may differ in the quality of teachers in elementary or secondary school, in the financial resources of the schools attended, in the resources of parents, and in a multitude of other factors. If stratification is used to account for these other factors, it may be that they also tend to explain the difference in the proportion of blacks and whites with high school diplomas. Indeed, it is possible that these other factors fully explain the difference, so that race ought to be rejected as a factor associated with the difference. This, however, is not our point here because race tends to taint many of the stratifying factors in this example, and several others. Our point here is a narrower one: The stratification lens helps us to see that *every* disparate impact case depends on an adverse impact that is created jointly by social factors *and* the employer's employment practice.

Ordinary disparate impact cases, then, view causation with blinders. The law treats the employer's criterion as *the* cause of a disparity, even though it may be only one of a wide array of factors

necessary to produce the disparity.⁹² Ordinary disparate impact cases view causation with blinders, not because the cases arise in a single-cause context, but because they *ignore* causes external to the employer that contribute to the impact.⁹³ The blinders necessarily mean that employers may be held legally responsible for impacts that are “caused” in substantial part by factors external to the employers.⁹⁴

92. Another way of saying this is that factors external to the employer are treated as givens and that an employer may be held responsible for them if, jointly with the employer's criterion, they produce a disparity.

93. Note that this “blinders” principle means only that disparate impact analysis ignores social factors that contribute to an impact *within a relevant population*. The population itself, however, may be affected by social factors. For example, consider a hospital that requires emergency room physicians to achieve a certain score on a general intelligence test before it will consider them for employment. The population may consist of all emergency room physicians, and the racial composition of that group is undoubtedly affected by numerous social factors. However, if blacks within that population meet the test requirement less (or more) often than whites, inquiries into social factors that contribute to the disparity are irrelevant to the disparate impact claim. For a more detailed discussion of population issues, see *supra* part II.C.2.

One class of cases—the so-called “comparable worth” cases—violates the “blinders” principle. See, e.g., *Spaulding v. University of Wash.*, 740 F.2d 686, 707-08 & n.11 (9th Cir.), *cert. denied*, 469 U.S. 1036 (1984); *Beard v. Whitley County REMC*, 656 F. Supp. 1461, 1468-70 (N.D. Ind. 1987), *aff'd*, 840 F.2d 405 (7th Cir. 1988). In these cases, one of the plaintiffs' arguments was that the use of market forces to set wages was an employment practice that had a disparate impact on women. *Spaulding*, 740 F.2d at 705; *Beard*, 656 F. Supp. at 1468-69. The courts rejected the claim, in part, because any disparate impact on women caused by the use of market forces was not caused solely by the employer's use of that factor, but also by social forces (the forces setting the market wages). *Spaulding*, 740 F.2d at 708-09; *Beard*, 656 F. Supp. at 1469-70. The courts held that they were not competent to investigate those social forces and that employers should not be held liable because of them. *Spaulding*, 740 F.2d at 705-09; *Beard*, 656 F. Supp. at 1468-70.

This result is contrary to the blinders principle inherent in *Griggs*. In that case, the court did not inquire into the social factors that may have contributed to the disparate impact that the high school diploma requirement produced, but it held the employer liable nonetheless. *Griggs*, 401 U.S. at 429-32. The comparable worth cases also blind themselves to the societal forces, but use their blindness to exculpate employers, rather than to find them liable. *Spaulding*, 740 F.2d at 705-09; *Beard*, 656 F. Supp. at 1468-70.

The comparable worth cases should be viewed as an exception to the ordinary principles that apply to disparate impact cases. They are sex-based wage discrimination cases subject to a particular provision of Title VII, the Bennett Amendment, that applies only to them and that affects the disparate impact analysis only in that narrow class of cases. Title VII, § 703(h), 42 U.S.C. § 2000e-2(h)(1988). See *County of Washington v. Gunther*, 452 U.S. 161, 167-68 (1981); *American Nurses' Ass'n v. Illinois*, 783 F.2d 716, 723 (7th Cir. 1986). Moreover, “comparable worth” cases have been particularly controversial and, hence, have tended to bend the antidiscrimination principles applied in more run-of-the-mill cases. See STEVEN L. WILLBORN, A SECRETARY AND A COOK 127-36 (1989).

94. Professor Abrams has recently commented perceptively on this function of the disparate impact model, i.e., that it serves as “a link between discrimination in the

Blinders also affect the disparate impact model in ordinary cases because the model does not require further exploration of any of the causes of a disparate impact to determine whether they, in turn, have been produced by purposeful discrimination. The plaintiff need not prove (1) that the employer selected the high school diploma requirement for the purpose of disproportionately eliminating black candidates,⁹⁵ nor (2) that the social conditions producing a lower proportion of black than white high school graduates were the result of any purposeful racial discrimination.⁹⁶ Similarly, the employer cannot defend by presenting evidence that its purposeful discrimination produced no disparity. For purposes of the prima facie case, the plaintiff need prove only that the employment criterion produced the disproportionate screening effect in a relevant

workplace and in the larger social world.” Kathryn Abrams, *Title VII and the Complex Female Subject*, 92 MICH. L. REV. 2479, 2524 (1994). Although we do not engage in a full comparison here, we want to note some ways in which our analysis adds to that of Professor Abrams and some ways in which we disagree with her analysis. Our analysis supplements Professor Abrams’s by highlighting the irony of the link disparate impact provides between workplace and societal discrimination: The link occurs not because the model attends to societal discrimination, but because it ignores it. Professor Abrams hints that the disparate impact model is designed to minimize the perpetuation of past discrimination and that the model has been marginalized. *Id.* at 2524-26. We disagree with both points. See *infra* parts III.B, III.C.

95. The irrelevance of purposeful employer discrimination is a central principle of the disparate impact model and a part of the mantra recited by the courts in virtually every disparate impact case. See, e.g., *Dothard v. Rawlinson*, 433 U.S. 321, 328 (1977) (noting that a disparate impact claim “does not involve an assertion of purposeful discriminatory motive”); *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 336 n.15 (1977) (stating that “[p]roof of discriminatory motive . . . is not required under disparate-impact theory”); *Griggs v. Duke Power Co.*, 401 U.S. 424, 432 (1971) (stating that “good intent or absence of discriminatory intent does not redeem employment procedures or testing mechanisms that operate as ‘built-in headwinds’ for minority groups and are unrelated to measuring job capability”).

96. Some commentators have suggested that inquiry into external discrimination should be a part of the model’s proof structure, particularly when it is applied under the Constitution. See, e.g., Theodore Eisenberg, *Disproportionate Impact and Illicit Motive: Theories of Constitutional Adjudication*, 52 N.Y.U. L. REV. 36, 50-55 (1977); Perry, *supra* note 6, at 557-61. Those suggestions, however, have never been followed. Under the Constitution, the disparate impact model itself has been rejected, thus rendering the inquiries unnecessary. See *Personnel Adm’r v. Feeney*, 442 U.S. 256, 281 (1979) (holding that a preference for veterans with a disparate impact against women did not violate the Constitution); *Washington v. Davis*, 426 U.S. 229, 245-46 (1976) (holding that a test with a disparate impact against black police officer applicants did not violate the Constitution). When the disparate impact model is applied under antidiscrimination statutes, the courts have structured the proof process to focus on the effect of the employer’s criterion independent of other causal factors, thus making inquiry into external discrimination irrelevant. See *supra* notes 87-94 and accompanying text.

population differentiated by protected group status.⁹⁷ Richer conceptions of causation (for example, ones that inquire into the social processes or subjective motivations that produce the disparity) are not only unnecessary, they are irrelevant.

Causation is also blindered in ordinary disparate impact cases because it does not require that the plaintiff prove that the employer's criterion has *actually* produced a disparate impact in the workplace. In *Griggs*, for example, the same disparate impact on blacks may have occurred even if the employer had not utilized the high school diploma requirement. Employees applying for the jobs at issue in *Griggs* also had to attain a certain score on a general "intelligence" test that approximated the national median score for high school graduates.⁹⁸ Blacks as a class may have suffered from the same (or even a greater) disparate impact as a result of the test requirement.⁹⁹ The disparate impact model as applied in *Griggs*, then, did not require any proof that the criterion at issue actually produced a disparate impact;¹⁰⁰ it merely required proof that the criterion at issue would have screened out protected class members disproportionately if applied independently of any other factors at play in the selection process.¹⁰¹

This view of *Griggs* sheds light on the concurrence lens. If we look only at the high school diploma requirement, the lower proportion of blacks than whites with a diploma tends to indicate that the

97. Another way of saying this is that the employer can be liable even if its employment criterion is not a *necessary* cause of the disparity. The employment criterion need only be *sufficient* to produce the outcome, if operating jointly with other causes. Inquiry into those other causes, however, is not a part of the analysis.

98. *Griggs v. Duke Power Co.*, 401 U.S. 424, 427-28 (1971).

99. We provide examples of this point below. See *infra* notes 103-15 and accompanying text.

100. Proof of actual effect is neither a part of the plaintiff's prima facie case, nor a cognizable employer defense. See *Connecticut v. Teal*, 457 U.S. 440, 450-51 (1982) (holding that an employer cannot defend by proving that other employment practices tended to eliminate disparate impact caused by an employment test).

101. *Griggs*, 401 U.S. at 430 & n.6. The principal reason for this result is that courts, following the Supreme Court's lead in *Griggs*, do not inquire into whether other factors make the effects of the questioned factor redundant for individuals affected by the questioned factor. The "particular employment practice" requirement of Title VII also implies the result. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993). A different result would require inquiry beyond the "particular" criterion to other factors simultaneously in play in the selection process, to see how the interplay of factors would affect individuals. Finally, this result is implied by *Connecticut v. Teal*, 457 U.S. 440, 445-56 (1982), which held that an employment practice with a disparate impact on some individuals is not immunized because other factors at play in the workplace eliminate the impact for other individuals.

requirement disproportionately disadvantages blacks. In this particular workplace, however, it may be that other criteria at play (such as the test requirement) also screen out blacks disproportionately, so that the *net* effect of the high school diploma requirement is zero, or perhaps even favorable to blacks. *Griggs's* unwillingness to consider the *net* effect of the high school diploma with the test requirement does not, surprisingly, rule out simultaneous consideration of the two criteria (i.e., the concurrence lens). That is because the net effect of a criterion examines its redundant effect on individuals within the protected class—i.e., it considers whether the same individuals would have been excluded anyway, due to other criteria at work. The concurrence lens assesses the joint effect of two or more criteria on the class as a whole—i.e., it allows for the possibility that a joint impact may occur whether the *same or different* individuals are excluded by the criteria independently.¹⁰² Absence of a net effect of one criterion on members of the protected class does not imply that the criterion, considered together with other criteria, does not have a joint effect on some individuals within the class.

The blindered treatment of causation brought into focus by the concurrence lens emphasizes the somewhat counterintuitive emphasis of the disparate impact model on providing protection for individuals rather than groups. It can also produce anomalous outcomes. To illustrate, assume first that the high school diploma requirement in *Griggs* was not business justified but that the tests were,¹⁰³ and that the two requirements were precisely redundant in their racial impact (that is, everyone who passed the tests had a high school diploma and

102. Recall that the concurrent effect of two criteria may be better, worse, or the same as the effect of either criterion considered independently. See *supra* notes 20-25 and accompanying text.

103. In *Griggs* itself, neither the high school diploma requirement nor the test requirement was business justified. Thus, the disparate impact was overdetermined in a way analogous to the well-known causation hypotheticals in which “[t]wo men may simultaneously fire and lodge a bullet in their victim’s brain, or may simultaneously approach an escaping gas with a lighted candle.” H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW 123 (2d ed. 1985). The causation problem of deciding whom to hold responsible is not present here, however, because the same actor is responsible for both forces. A different problem is present though. In the disparate impact context, the two factors may adversely affect different groups of people. If each factor has a disparate impact and neither is business justified, as in *Griggs*, any plaintiff (or class member) adversely affected by either factor should be entitled to a remedy. This result follows from our discussion of the appropriate result when one of the factors *is* business justified. See *infra* notes 108-13 and accompanying text.

everyone who failed the tests did not). Table 10 illustrates this formalized situation.¹⁰⁴

TABLE 10: APPLICATION OF THE DISPARATE IMPACT MODEL WITH PERFECTLY REDUNDANT JOB REQUIREMENTS

		<i>High School Diploma</i>	
		<u>Yes</u>	<u>No</u>
<i>Tests</i>	Pass	Black 50	Black 0
		White 80	White 0
	Fail	Black 0	Black 50
		White 0	White 20

In this situation, the high school diploma requirement could be successfully attacked using the disparate impact model even though the requirement would not actually affect any black person. The high school diploma requirement, analyzed independently of the test requirement, has a cognizable disparate impact against blacks¹⁰⁵ and,

104. Note a couple of things about this situation. First, two perfectly redundant requirements, where one can be justified and the other cannot, are hard to imagine. Indeed, if one requirement is justified and the other correlates with it perfectly in the sense of excluding the same individuals, the other is probably business justified, too. This need not be the case, however; one requirement could fail to be business justified, yet for this employer's relevant population, each of the two requirements would exclude precisely the same people. For example, a test that is not valid—and hence not business justified—could exclude precisely the same people as a business justified high school diploma requirement. Test validation procedures are discussed in Richard R. Reilly, *Validating Employee Selection Procedures*, in STATISTICAL METHODS IN DISCRIMINATION LITIGATION 133 (H. Kaye & Mikel Aickin eds., 1986). A discussion of the legal and social science issues involved in relying on test validation for determining business necessity can be obtained from Mark Kelman, *Concepts of Discrimination in "General Ability" Job Testing*, 104 HARV. L. REV. 1157 (1991); Frank L. Schmidt, *The Problem of Group Differences in Ability Test Scores in Employment Selection*, 33 J. VOCATIONAL BEHAV. 272 (1988). We use the situation here not to imply that it is likely to occur, but as an extreme case with which to begin our discussion.

Second, the appropriate legal treatment of the concurrence of employer selection criteria has not yet been discussed. We suggest a resolution of those legal issues later. See *infra* part IV.A.

105. The pass rate for blacks and whites is 50% and 80% respectively, which means that the selection ratio is $50/80 = .625$. That selection ratio is less than .80, so it satisfies the four-fifths rule requirement for the existence of a disparate impact.

by assumption, is not business justified. The analysis focuses on the individual effect of the high school diploma requirement and blinds itself to its actual effect on blacks in the particular workplace.¹⁰⁶ Therefore, the blindered nature of causation in disparate impact cases means that the requirement has a cognizable disparate impact and, therefore, that use of the requirement is improper.

The actual effect of the requirement, however, can play a role at a later stage of a disparate impact case. For example, the employer could demonstrate the absence of actual effects to avoid liability to individual class members. As in other types of discrimination cases, at the remedy stage, the employer would be individually liable only to class members who were actually adversely affected by the employer's improper actions (here, by its use of the high school diploma requirement).¹⁰⁷ Thus, in our example, the employer would

106. That is, the analysis blinds itself to the manner in which the other criteria in play at the workplace (in our example, the test requirement) affect the impact of the high school diploma requirement on blacks. In our example, the other criterion eliminates the same individuals as the high school diploma, and in this sense, would seem to eliminate the adverse impact of the high school diploma requirement on blacks. Jointly, however, a disparate impact on blacks remains, as seen through the concurrence lens. Here, the concurrent effect of the two requirements is precisely the same as the effect of each requirement applied independently of the other. Once again, concurrence does not concern itself with whether multiple criteria affect the *same individuals*, but with whether the group *as a whole* suffers an impact as the result of imposition of two or more selection criteria. Therefore, concurrence is particularly relevant to causation in disparate impact analysis. As long as *any* individuals are disproportionately affected due to their class membership, an impact exists.

107. The closest analogy is to the remedy stage of a systemic disparate treatment class action. Plaintiffs who make out a successful systemic disparate treatment case have created a presumption of illegal discrimination and, hence, in favor of individual relief. The employer, however, has an opportunity to avoid providing relief to any individual class member by proving that the member has not suffered from the presumptive discrimination (e.g., by proving that other legitimate reasons would have resulted in the same employment outcome). *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 357-62 (1977); *Franks v. Bowman Transp. Co.*, 424 U.S. 747, 772-73 (1976).

The analysis is also suggested by the "mixed motives" analysis of *Price Waterhouse v. Hopkins*, 490 U.S. 228, 237-58 (1989) and the Civil Rights Act of 1991, Title VII, §§ 703(m), 706(g)(2)(B), 42 U.S.C. §§ 2000e-2(m), 2000e-5(g)(2)(B) (Supp. V 1993). Even when a plaintiff can establish that discrimination was a factor motivating the employer, the employer can avoid individual relief if it can prove that it would have taken the same adverse action in the absence of the impermissible factor.

Although much less commonly applied, this same principle is applicable in disparate impact cases. Although the plaintiff's successful disparate impact case creates a presumption of discrimination against every individual class member, the employer has an opportunity to avoid individual relief by proving that other legitimate reasons would have resulted in the same employment outcome. *See Davis v. City of Dallas*, 748 F. Supp. 1165, 1169-77 (N.D. Tex. 1990) (noting that an employer can avoid individual relief in a disparate impact case by demonstrating that individual class members do not meet other

be liable only to class members who did not have a high school diploma and who passed the test, a null set.

Now assume that one black person in Table 10 moves from the Pass-Yes box to the Pass-No box, so now forty-nine black persons both passed the test and had a high school diploma and one black person passed the test but did not have a high school diploma. Everything else remains the same (see Table 11). The high school diploma requirement now has a *net* adverse effect on one out of one hundred black persons compared to none out of one hundred white persons.¹⁰⁸

legitimate employment criteria); *Richardson v. Lamar County Bd. of Educ.*, 729 F. Supp. 806, 813-14 (M.D. Ala. 1989), *aff'd sub nom. Richardson v. Alabama State Bd. of Educ.*, 935 F.2d 1240 (11th Cir. 1991) (finding that employer did not meet burden of proving that individual would not have been rehired even if criterion with illegal disparate impact had not been used). *Cf. Pamela L. Perry, Two Faces of Disparate Impact Discrimination*, 59 FORDHAM L. REV. 523, 567-70 (1991) (discussing briefly the individual and aggregate natures of disparate impact model).

Our textual hypothetical provides an extreme example of this principle. The high school diploma requirement has a disparate impact. Thus, its use is improper and should be enjoined. The employer, however, can prove that the criterion has not adversely affected any individual class member; each would have received the same treatment even if the employer had not used illegal criterion. Thus, the employer is not liable to any individual class member.

108. Determining the appropriate population here is problematic: Is the appropriate population for analyzing the high school diploma requirement all 200 applicants, or only those who meet the employer's other requirement (the test)? In the text, we implicitly argue that the appropriate population is all 200 black and white applicants. If that is correct, then the *overall* selection rates of the high school diploma requirement are 49 out of 100 (.49) for blacks and 80 out of 100 (.80) for whites, for a selection ratio of .6125 (.49/.80), suggesting that a disparate impact on blacks exists. It could be argued, however, that the appropriate population consists only of those who remain after the tests. If one looks at that population, the selection rates are 49 out of 50 (.98) for blacks and 80 out of 80 (1.00) for whites. The selection ratio of .98 for that population does not suggest a disparate impact. The problem with the latter population is that the test and diploma requirements, by assumption, are applied simultaneously so it is difficult to know which requirement to look at first. Thus, the former population is more appropriate. *See supra* part II.C.2.

The basic point here, however, is that the *net* effect of the high school diploma requirement is very small. That is true for this hypothetical regardless of the proper population. As the text indicates, if the population is all applicants, the high school diploma requirement alone rejects only 1 out of 100 blacks and none out of 100 whites. If the population is only those applicants who meet the test requirement, the diploma requirement rejects 1 out of 50 blacks and none out of 80 whites. In either event, the *net* effect of the diploma requirement is very minimal.

 TABLE 11: APPLICATION OF THE DISPARATE IMPACT MODEL WITH CLOSE-TO-REDUNDANT JOB REQUIREMENTS

		<i>High School Diploma</i>	
		<u>Yes</u>	<u>No</u>
<i>Tests</i>	Pass	Black 49	Black 1
		White 80	White 0
	Fail	Black 0	Black 50
		White 0	White 20

Nevertheless, despite this limited adverse effect, the high school diploma requirement is illegal. The plaintiff can establish a disparate impact based on the overall effect of the requirement¹⁰⁹ and, by assumption, the employer cannot demonstrate business necessity. The one black person in the Pass-No box would be entitled to damages.¹¹⁰ This result is analogous to that in *Connecticut v. Teal*,¹¹¹ in which the Supreme Court stated that *individual* blacks were entitled to protection under the disparate impact model even though the evidence indicated that blacks *as a group* had not suffered any disadvantage in the employer's selection process.¹¹² Similarly in this hypothetical, blacks as a group have not suffered any cognizable injury because of the high school diploma requirement;¹¹³

109. The adverse effect of the diploma requirement is marginally greater in this hypothetical. Now 49 (instead of 50) out of 100 black persons (.49) can meet the requirement compared to 80 out of 100 white persons (.80). Thus, the selection ratio for the prior hypothetical was .625 (.50/.80), while here the selection ratio is .6125 (.49/.80).

110. See *supra* note 107.

111. 457 U.S. 440 (1982).

112. *Id.* at 452-56. Cases other than *Teal* also emphasize the individual nature of Title VII's protections. See, e.g., *Furnco Constr. Corp. v. Waters*, 438 U.S. 567, 579 (1978); *City of Los Angeles Dep't of Water & Power v. Manhart*, 435 U.S. 702, 708 (1978); *Phillips v. Martin Marietta Corp.*, 400 U.S. 542, 544 (1971) (per curiam). None of these cases, of course, is directly on point. *Teal* considers a bottom line issue, rather than a concurrence issue, see *supra* notes 44-49 and accompanying text, while *Manhart*, *Furnco*, and *Phillips* are disparate treatment rather than disparate impact cases.

113. Given that the tests are used to screen out blacks, the high school diploma requirement has not produced any additional impact on the group of blacks as a whole.

nevertheless, any individual blacks who have been disadvantaged are entitled to relief.

The blindered treatment of causation in disparate impact cases, and its concomitant focus on individuals, can produce anomalous outcomes. Assume that the one black person in the Pass-No box is joined by 10 white persons (Table 12). Since the standard treatment of causation requires us to ignore the effects of the tests, here we can make out a case of disparate impact discrimination against blacks. The high school diploma requirement produces a selection rate of .49 for blacks and .70 for whites, for a selection ratio of .70. By assumption, the requirement cannot be justified. As a result, use of the requirement is improper and the black person in the Pass-No box would be entitled to relief. This is true even though the *net* effect of the high school diploma requirement operates *in favor* of blacks as a group. Only one of one hundred blacks is actually adversely affected by the high school diploma requirement, compared to ten of one hundred whites.¹¹⁴ As a group, blacks would prefer that the high school diploma requirement be left in place because it increases the proportion of blacks in the pool available for hire from .385 to .412.¹¹⁵

TABLE 12: APPLICATION OF THE DISPARATE IMPACT MODEL WITH REVERSED OVERALL AND NET EFFECTS

		<i>High School Diploma</i>	
		<u>Yes</u>	<u>No</u>
<i>Tests</i>	Pass	Black 49 White 70	Black 1 White 10
	Fail	Black 0 White 0	Black 50 White 20

114. Obviously, this hypothetical presents the same population problem as the previous one. See *supra* note 108.

115. Without the high school diploma requirement, 50 blacks and 80 whites pass the tests and are available for hire ($50/130 = .385$). With the high school diploma requirement, 49 blacks and 70 whites meet both requirements and are available for hire ($49/119 = .412$).

We believe the limited role for causation in disparate impact cases is justified even though it produces anomalies like these. See *infra* part III.C.

These blindered interpretations of causation are also present in disparate impact cases more complex than *Griggs*. Consider the most famous of these cases: *Wards Cove Packing Co. v. Atonio*.¹¹⁶ Plaintiffs in *Wards Cove* attempted to demonstrate that a set of employment practices had a disparate impact on nonwhites through evidence that a lower proportion of nonwhites were in favorable non-cannery jobs than in unfavorable cannery jobs.¹¹⁷ Although the Supreme Court had other problems with the court of appeals' decision,¹¹⁸ the Court's discussion of causation focused *only* on the fact that the plaintiffs had not isolated the particular employment practices that produced the disparity of nonwhites in non-cannery and cannery jobs.¹¹⁹ Plaintiffs alleged that the employer used several employment practices (e.g., nepotism, separate hiring channels, and rehire preferences), but they did not disentangle the extent to which each contributed (or failed to contribute) to the disparity.¹²⁰ If the plaintiffs could have proved that a particular employment practice "caused" the disparity (or a significant enough portion of it), they would have met the Supreme Court's articulated causation requirement.

Nothing in *Wards Cove* indicates that the causation requirement articulated there is different from the one implicitly applied in *Griggs*. The plaintiffs in *Griggs* also had to demonstrate that particular employment practices caused a disparity.¹²¹ The difference between *Wards Cove* and *Griggs* is that the plaintiffs in *Wards Cove* did not have evidence of the particular screening effect of each (or indeed any) of the employment practices used by the employer.¹²² The plaintiffs attempted to establish the screening effect indirectly based

116. 490 U.S. 642 (1989).

117. *Id.* at 650.

118. The Supreme Court held that the court of appeals had erred by failing to account properly for qualifications when it made its group comparisons. *Id.* at 650-55. The Court also commented on the proper allocation of burdens of proof at the business necessity stage of a disparate impact case. *Id.* at 656-61.

119. *Id.* at 656-58.

120. *Id.* at 647-48, 656-58.

121. *Griggs v. Duke Power Co.*, 401 U.S. 424, 429-31 & n.6 (1971).

122. One reason for this was that the requirements in *Griggs* were generic, in the sense that their effects could be determined based on evidence extrinsic to the particular employer involved. In *Wards Cove*, the employment practices were such that any disparate impact could only be demonstrated based on that particular employer's experience. *Wards Cove*, 490 U.S. at 656-58. For example, any disparate impact caused by the employer's nepotism would depend on factors peculiar to the employer such as the number of relatives who apply, their race, and so forth.

on the employer's hiring pattern,¹²³ but that pattern reflected the combined effect of multiple screening criteria used by the employer and the plaintiffs could not adequately isolate the effects of individual criteria. Nothing in *Wards Cove* suggests that the disparate impact model requires inquiries into the social factors that cause disparities in conjunction with employment practices or into subjective motivations contributing to disparities, or that the employment practices have to produce job losses in the particular workplace independently of any other employment practices used by the employer.

In summary, the causation element in ordinary disparate impact cases is a rather meager and curious concept. The plaintiff need only isolate the criterion at issue from other criteria used by the employer and demonstrate that it screens out a disproportionate number of protected class members in a relevant population. Proof that might normally be thought relevant to causation is not relevant in disparate impact cases: proof that the screening effect is caused primarily not by the criterion at issue, but by factors external to the employer; proof that the screening effect was not produced by purposeful discrimination against the class either by the employer or by anyone else; and proof that the same screening effect would have occurred even if the employer had not used the criterion at all. Moreover, proof of these points is irrelevant regardless of who presents it—it is neither a part of the plaintiff's burden, nor a cognizable defense if presented by the employer.

B. Blinded Causation and the Nature of "Ordinary" Disparate Impact Cases

Blinded causation is not merely an important and interesting aspect of the disparate impact model. It is *the* defining characteristic of the model and it is the element that makes the model a distinct and powerful feature on the antidiscrimination landscape. This is true not only in a formalistic and obvious sense, but also in a deeper sense that

123. *Id.* at 650. *Wards Cove* does not foreclose the possibility that a disparate impact can be proved in this way. If (1) cannery jobs were the appropriate population for considering the effect of screening criteria for entry into non-cannery jobs (an assumption that the Court specifically rejected in *Wards Cove*, *id.* at 651-55) and (2) the plaintiffs could show that a single employment criterion produced a disparity in the minority representation rates between cannery and non-cannery jobs (a multitude of factors contributed to the disparity in *Wards Cove*), then the difference in representation rates attributable to the single factor could easily be converted into a difference in selection rates and one would have the type of comparison used in *Griggs*.

has important substantive implications. Moreover, this insight permits us to bring into better focus the other elements of the disparate impact model.

In a formalistic sense, blindered causation is the defining feature of the disparate impact model.¹²⁴ The most obvious way in which causation is blindered is that it is oblivious to the employer's intent.¹²⁵ At a simple and formalistic level, this is the principal distinction between the two major types of discrimination. The judicial definition of disparate *treatment* discrimination, repeated mantra-like in case after case,¹²⁶ is that it occurs when an employer intends to discriminate. The equivalent judicial definition of disparate impact discrimination, also repeated mantra-like, is that it does not require any showing of adverse employer intention.¹²⁷

Even at this simplistic level, blindered causation has consequences that highlight the importance of the blindness principle. In treatment cases, evidence of a disparate impact is relevant. Indeed, evidence of a severe disparate impact may, by itself, be sufficient to prove the type of adverse intention that is the core of a treatment case.¹²⁸ The converse is not true. In disparate impact cases, evidence of employer intent, one way or the other, is completely irrelevant.¹²⁹ The disparate impact model is blind to that type of causation.

124. We focus in this section on the distinction between the two major models of discrimination, disparate treatment and disparate impact. Although we do not focus on it here, we believe that the blindered nature of causation is also the principal way of distinguishing the disparate impact model from other models of discrimination, such as the emerging harassment and reasonable accommodation models.

125. See *supra* note 95.

126. See *United States Postal Serv. v. Aikens*, 460 U.S. 711, 715 (1983) (noting that the factual issue in a disparate treatment case is whether "the defendant intentionally discriminated against the plaintiff"); *Texas Dep't of Community Affairs v. Burdine*, 450 U.S. 248, 253 (1981) (holding that plaintiff bears burden of proving that "the defendant intentionally discriminated against the plaintiff"); *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 335 n.15 (1977) (stating that "[d]isparate treatment" . . . is the most easily understood type of discrimination. . . . Proof of discriminatory motive is critical"). We do not mean to disparage this practice of the courts. Indeed, the vast majority of cases depend on analysis that is no more refined than the mantras we recite here. Our intent is merely to emphasize that, even at this superficial level, blindered causation is a central feature of the disparate impact model and that it has important consequences.

127. See *supra* note 95.

128. See *Arlington Heights v. Metropolitan Hous. Dev. Corp.*, 429 U.S. 252, 265-66 (1977); *Washington v. Davis*, 426 U.S. 229, 242 (1976). Note that in severe cases, plaintiffs have incentives to attempt to fit their cases into the disparate treatment category because of remedial differences between the two models. See 42 U.S.C. § 1981A (Supp. V 1993) (compensatory and punitive damages available for disparate treatment cases only).

129. See *supra* note 95.

Blinded causation is also the defining feature of the disparate impact model because it is what links the model to a conception of discrimination. The other major components of the model (the "particular employment practice" and "business necessity" elements)¹³⁰ do not create any tie between challenged practices and discrimination. Blinded causation defines the crucial link necessary to create a legal inference that the employment practices are discriminatory. Blinded causation is the defining feature of the model, then, because it transforms the model from one designed to isolate non-business-related practices (with no resulting legal consequences) into one designed to isolate instances of legally significant discrimination.

Finally, blinded causation is the defining feature of the disparate impact model because it is what gives the model its independent power. The model has independent power only when the disparate treatment model would not produce a finding of discrimination in the same circumstances.¹³¹ Consider a wage discrimination case in which the plaintiffs allege that the employer discriminates against women.¹³² Assume that the plaintiffs prove that the average salary of female employees at the company is lower than the average salary of male employees. No court would find that the plaintiffs had established a *prima facie* case of disparate treatment discrimination. Instead, plaintiffs would be required to refine the data to account for important criteria that might produce this disparity in salaries. For example, plaintiffs might have to include consideration of types of job duties that the employer has assigned (to account for concurrence possibilities) or levels of education of the employees (to account for

130. We argue later that these other elements of the disparate impact model are best viewed as necessary constraints on the power the model otherwise would have because of blinded causation. See *infra* notes 135-45 and accompanying text.

Note that we have largely ignored the final possible stage of a disparate impact case—the plaintiff's opportunity to prove that an alternative employment practice would have served the employer's business interests with a lesser disparate impact. See Title VII, § 703(k)(1)(A)(ii), 42 U.S.C. § 2000e-2(k)(1)(A)(ii) (Supp. V 1993); *Albemarle Paper Co. v. Moody*, 422 U.S. 405, 425 (1975). We view this element not as an integral part of disparate impact cases, but rather as a post-impact stage in which the plaintiff is attempting to prove disparate treatment. In any event, this stage is seldom reached.

131. Note, once again, that as a general matter, if plaintiffs can make out a claim under both models, they should prefer disparate treatment because of its remedial advantages. See *supra* note 128.

132. Note that we have selected a situation in which the courts have been very reluctant to apply the disparate impact model. See *supra* note 93. We have done that intentionally to emphasize both the differences between the two models and the power of the disparate impact model.

stratification possibilities).¹³³ In other words, plaintiffs are *required* to account for concurrence and stratification to establish a disparate treatment claim. A disparity in average salaries is not sufficient because plaintiffs are making a comparison across employer-induced categories (such as jobs) or across a heterogeneous population (such as one in which individuals have different levels of education). Plaintiffs must account for those possibilities to ensure that the inference of intentional sex discrimination is based on a comparison of men and women who are reasonably alike.¹³⁴

The disparate impact model is powerful because blindered causation imposes severe limits¹³⁵ on the relevance of concurrence and stratification in making discrimination determinations. Assume in our wage discrimination example that the disparate impact model applies and that its other requirements are met.¹³⁶ The plaintiffs have made out a prima facie disparate impact case by proving that the employer's wage-setting practices have produced the average salary

133. Here we are assuming that the employer does not use level of education as a job requirement, because we are using education level as a possible stratification variable. If the employer were using level of education as a job requirement, its inclusion would exemplify concurrence, not stratification. See *supra* parts II.A and II.B.

134. Note that we are not making a point about burdens of proof here. Our point, instead, is that accounting for concurrence and stratification is relevant and important in disparate treatment cases. The point would be equally strong if plaintiffs could make out a prima facie case based on average salaries, but defendants were permitted to defend by relying on studies of concurrence and stratification.

Plaintiffs need not produce perfect statistical models to satisfy the prima facie disparate treatment showing; imperfect statistical showings may still be relevant evidence of disparate treatment discrimination. The Supreme Court has indicated that "failure to include variables will affect the analysis' probativeness, not its admissibility." *Bazemore v. Friday*, 478 U.S. 385, 400 (1986) (per curiam) (Brennan, J., concurring in part). However, some models may be so incomplete that they can be inadmissible on grounds of irrelevance. *Id.* at 400 n.10 (Brennan, J., concurring in part). Presumably, a model that looks only at average salaries for men and women without consideration of concurrence or stratification variables could be inadmissible on relevancy grounds. Certainly, it would be insufficient to establish a prima facie disparate treatment case. See, e.g., *Eastland v. Tennessee Valley Auth.*, 704 F.2d 613, 625 (11th Cir. 1983), *cert. denied*, 465 U.S. 1066 (1984) (affirming lower court determination that a salary discrimination claim failed because plaintiffs failed to control adequately for relevant variables); cf. *Case 109188, Handels-og Kontorfunktionærernes Forbund i Danmark v. Dansk Arbejdsgiverforening*, 1989 E.C.R. 3199, 3199 (holding that a difference in average pay between men and women gives rise to a presumption that the system of job classification is not free from sex discrimination).

135. We discuss the precise nature of these limits *infra* part IV.

136. This is a large assumption. First, the "particular employment practice" requirement, see *infra* part IV.A.1, will likely not be met. Second, the disparate impact model has limited application to wage cases. See *American Nurses' Ass'n v. Illinois*, 783 F.2d 716, 722-23 (7th Cir. 1986).

difference between male and female employees.¹³⁷ Blinded causation means that plaintiffs do not need to stratify to account for societal factors (such as educational differences) that may have contributed to the disparity,¹³⁸ nor do they need to account for concurrence possibilities (such as differences in jobs held).¹³⁹ Nor is it likely that the employer can defend by presenting evidence of concurrence or stratification.¹⁴⁰ The disparate impact model is powerful because blinded causation precludes the use of evidence which, if available, may well undermine a disparate treatment claim.¹⁴¹

The centrality of blinded causation to the disparate impact model allows us to bring into better focus the other elements of the model. As our wage-setting example illustrates, the disparate impact model's conception of causation is extremely powerful. Without constraints, the model would articulate a strong equal achievement conception of equality: Equality is achieved when each racial group receives its proportionate share of the economic pie.¹⁴² Men and

137. Notice that this *prima facie* showing of disparate impact has a different quantitative nature than the showings discussed previously. See *supra* part II. In previous examples, the employment-related decisionmaking involved dichotomous outcomes (e.g., hire or not hire, promote or not promote). Here, the example involves level of salary, which is continuous in nature. Selection rates are not immediately applicable to this latter type of case, so that application of the four-fifths rule becomes problematic. Nonetheless, statistical procedures can be used so that statistical evidence regarding the significance of salary differences between men and women is available and probative.

138. See *supra* notes 92-94 and accompanying text.

139. See *supra* notes 98-106.

140. We discuss later the narrow situations in which concurrence and stratification evidence is relevant in disparate impact cases. See *infra* part IV.

141. This is the power, through blinded causation of the disparate impact model, that informs our proposed legal treatment of the concurrence and stratification lenses. Thus, the use of concurrence and stratification should be limited to the extent that they undermine this power. When they enhance the power, however, by amplifying discrimination that would otherwise not be visible, different treatment of the lenses is warranted. Part IV, *infra*, discusses these issues extensively.

142. Cox, *supra* note 6, at 46. Several commentators have argued that the "equal achievement" conception of equality provides the underlying rationale for the disparate impact model. See Alfred W. Blumrosen, *Strangers in Paradise: Griggs v. Duke Power Co. and the Concept of Employment Discrimination*, 71 MICH. L. REV. 59, 66-89 (1972); Fiss, *supra* note 6, at 237-49. The argument is not convincing for a number of reasons. As indicated below, the features of the model other than causation (the "particular employment practice" and "business necessity" elements) tend to undermine the ability of the model to produce equal outcomes; the disparate impact model does not address disproportionate shares produced by multiple employment practices or by criteria that are justified by business necessity. Moreover, blinded causation itself tends to undermine the argument. If equal achievement is the model's goal, bottom line equality should be a defense to a disparate impact claim and bottom line inequality should state a claim.

women in our example would have to be paid “equally” even if the difference in average salaries was attributable to societal factors (differences in educational level) or to legitimate employer distinctions (differences in jobs held). The blindered nature of the model’s conception of causation means that that portion of the model is relatively unconstrained—differences equal cognizable discrimination. Attempts to explain away the differences by accounting for concurrence or stratification are quite limited.

The other principal elements of the disparate impact model are best viewed as constraints on the model’s power. The “particular employment practice” requirement has very little to do with discrimination directly,¹⁴³ but it does function to limit the range of the model’s attack. The model is restricted to “particular” practices and cannot normally be used to attack a combination of practices,¹⁴⁴ such as the combination of wage-setting practices producing the salary disparity in our example. Similarly, the “business necessity” requirement has little to do with discrimination directly.¹⁴⁵ The business necessity requirement indicates that productivity concerns limit pursuit of the “equal achievement” conception of equality.

Neither is the case. See *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977, 994 (1988); *Connecticut v. Teal*, 457 U.S. 440, 445-56 (1982). Similarly, the results indicated above for situations in which a difference exists between the overall and net effects of a criterion would be quite different if equal achievement were the model’s underlying rationale. See *supra* notes 98-106. In sum, an equal achievement approach to equality would be especially sensitive to the ultimate outcomes of employment processes, not blind to them.

143. Isolating a particular employment practice tells us virtually nothing about whether that practice is or is not discriminatory in any relevant sense. The practice becomes relevant to discrimination only if it is connected to discrimination in some way—only if it is the product of intentional discrimination or if it has a disparate impact on a protected group.

144. *But see infra* part IV.A.1.

145. Determining that a practice is or is not business justified tells us a little, but only a little, about whether that practice is discriminatory. Practices without any business justification are probably slightly more likely to be the product of discrimination (in either an intent or impact sense) than practices with a business justification. Since business reasons are absent, discrimination provides a plausible reason for the existence of non-business justified practices; for business justified practices, a plausible reason for their existence is present without indulging any inference of discrimination. But the inference is weak. Practices with a business justification may well have been carefully selected because they tend to screen out a particular protected group. Practices without a business justification may well have been adopted for a variety of reasons having nothing to do with discrimination, such as custom, ignorance, or thoughtlessness.

C. *Blinded Causation and the Underlying Rationale of the Disparate Impact Model*

Identifying the proper role of the disparate impact model in the antidiscrimination effort has proved to be a difficult task. Earlier attempts to identify the model's role have caused authors to utter phrases such as a "theoretical vacuum"¹⁴⁶ and "a state of near complete disarray."¹⁴⁷ The disparate impact model's treatment of causation, however, provides insight into the model's proper role. Causation in these cases (and in the law generally) is ultimately a legal construct designed to accomplish certain goals.¹⁴⁸ As a result, our enhanced understanding of causation may help us to see more clearly the goals the disparate impact model is designed to pursue.¹⁴⁹

Discussions of the purpose of the disparate impact model, and indeed of fair employment laws generally, have concentrated on two possible conceptions of equality. Professor Fiss provided an early articulation of these conceptions in his influential article, *A Theory of Fair Employment Laws*:

One [conception] is equal treatment. Individual Negroes should be treated "equally" by employers in the sense that their race should be "ignored," that is, not held against them. This sense of equality focuses on the starting positions in a race: If color is not a criterion for employment, blacks will be on equal footing with whites. The second sense of equality—"equal achievement"—looks to the outcome of the race. It relates to the actual distribution of jobs among racial classes Jobs should be

146. Steven L. Willborn, *The Disparate Impact Model of Discrimination: Theory and Limits*, 34 AM. U. L. REV. 799, 801 (1985).

147. Cox, *supra* note 6, at 46.

148. Guido Calabresi, *Concerning Cause and the Law of Torts: An Essay for Harry Kalven, Jr.*, 43 U. CHI. L. REV. 69, 105-08 (1975).

149. Ordinarily, we prefer to think that our goals inform and shape our legal conceptions of causation. Here, because we know more about causation in disparate impact cases than we do about the goals of the model, we are looking in the opposite direction; we are attempting to inform and shape our understanding of the goals of the model from its treatment of causation. This merely recognizes, as then-Professor Calabresi did, that the relationship between causation and the goals of the law is complex. Causal concepts are "responsive to echoes from the past," Calabresi, *supra* note 148, at 108, and, hence, may shape the goals of the law in ways beyond the lawmakers' immediate understanding. One would expect this to be true especially when the law develops primarily through common-law processes, as was the case with the disparate impact model. At the same time, however, we may find that when we improve our understanding of the model's goals, we will want to revisit the model's conception of causation.

distributed so that the relative economic position of Negroes—as a class—is improved, so that the economic position of Negroes is approximately equal to that of whites.¹⁵⁰

Although illuminating on some issues, the dominance of these two conceptions of equality has interfered with the search for the proper role of the disparate impact model. We have already discussed why the treatment of causation in impact cases makes it clear that the model does not mesh well with the equal achievement conception of equality.¹⁵¹ Despite the claims of some commentators,¹⁵² it does not mesh well with the equal treatment conception of equality either.

The equal treatment conception of equality requires employers to ignore race¹⁵³ when making employment decisions. The disparate treatment model translates this conception of equality into legal doctrine most directly: A plaintiff must prove that an employer did not ignore race, but instead intentionally took race into consideration when making employment decisions. Causation in disparate treatment cases, then, is focused on whether intentional discrimination is present (or, conversely, on whether employers have breached their obligation to ignore race), rather than on the effects of an employment criterion.¹⁵⁴

150. Owen Fiss, *A Theory of Fair Employment Law*, 38 U. CHI. L. REV. 235, 237-38 (1971). A third possible conception of equality considers the legacy of past discrimination. People are treated equally if those who suffer from past discrimination are placed on an equal footing with others. Commentators have regularly considered whether the disparate impact model implements this conception of equality, both under Title VII and under the Equal Protection Clause. See, e.g., Cox, *supra* note 6, at 101-07; Eisenberg, *supra* note 96, at 57-83; Perry, *supra* note 6, at 553-62.

The blindered treatment of causation, however, means that this conception of equality is limited in its ability to rationalize the model. If the goal is to counter the adverse effects of past discrimination, one would expect the model to pay attention to whether a disparate impact is the product of past discrimination. But the model's treatment of causation means that the model is blind to whether the impact is produced by past discrimination. See *supra* notes 92-94 and accompanying text.

151. See *supra* note 142 and accompanying text.

152. See *infra* note 156.

153. We will use race as our example, but obviously fair employment laws also require employers to ignore other protected statuses.

154. Although we are discussing causation issues here, this difference in focus is also a primary distinction between treatment and impact cases and can have consequences for the relevance of evidence. For example, evidence that a combination of employment practices produces a lower proportion of blacks in a work force than one would expect from the proportion of blacks in the application pool would be insufficient to establish a disparate impact claim because it is inadequately focused on any individual employment criterion, but it may be sufficient to create an inference of intentional discrimination.

Despite this difference in focus, however, the disparate impact model could still fit within the equal treatment conception of equality. The effects of employment criteria are relevant to the issue of whether the employer has intentionally used race in making employment decisions. Intentional race discrimination should result in various types of racial disparities; therefore, racial disparities are well-recognized as evidence of intentional racial discrimination.¹⁵⁵ This has led some commentators to argue that the role of the disparate impact model is merely to overcome the conceptual and practical difficulties of proving intentional discrimination.¹⁵⁶ The model formalizes one method of proving intentional discrimination; adverse effects plus no business necessity serve as a proxy for a direct finding of intentional discrimination. The disparate impact model thus fits within the equal treatment conception of equality because its function is to approximate the results of disparate treatment models.

The blindered treatment of causation under the disparate impact model, however, makes this explanation of its function very unsatisfying. If the goal is to approximate the results of intention-based models, one would hardly expect the model to ignore relevant—indeed, even conclusive—evidence of intent. But that is what the blindered treatment of causation does. Evidence that a disparity was caused in part by social conditions may well undermine any inference that the employer caused the disparity intentionally¹⁵⁷—but such evidence is irrelevant for a disparate impact claim.¹⁵⁸ Evidence that the employer selected a criterion for the purpose of screening out blacks is crucial for an intent-based model—but irrelevant for a disparate impact claim.¹⁵⁹ Evidence that

155. See *Hazelwood Sch. Dist. v. United States*, 433 U.S. 299, 307-08 (1977); *International Bhd. of Teamsters v. United States*, 431 U.S. 324, 339 (1977).

156. See Cox, *supra* note 6, at 108-17; Rutherglen, *supra* note 6, at 1299-1311. But see Willborn, *supra* note 146, at 804-08 (arguing that treatment of disparate impact model as an intent-based theory aggravates, rather than alleviates, the practical and conceptual problems with proving intent).

157. Assume, for example, that an employer adopts an employment practice that has a disparate impact on a protected group because of a set of social conditions that the employer can demonstrate it was unaware of at the time it adopted the practice. This would undermine any inference that the employer adopted the practice with an intention to discriminate.

158. See *supra* notes 92-93 and accompanying text. Note that this list of factors follows our discussion in the previous section. See *supra* notes 92-101 and accompanying text.

159. The employer's intention is irrelevant in a disparate impact claim even if it is an intention to discriminate. Assume, for example, that the employer adopts a high school diploma requirement with the intention of screening out blacks disproportionately, but he is mistaken about the screening effect—the requirement actually screens out the same

a criterion has a disparate impact when considered individually, but no disparate screening effect when an employer used it in combination with other criteria, would tend to undermine an intent-based claim—but would be irrelevant to a disparate impact claim.

The equal treatment conception of discrimination, then, conflicts with the disparate impact model's blindered treatment of causation. Disparate treatment cases, which implement the equal treatment conception most directly, permit a wide-ranging inquiry into all potential causes of employment disparities (or other evidence of adverse treatment) in an attempt to determine whether intentional discrimination was a motivating factor.¹⁶⁰ In contrast, impact cases are blind to most potential causative factors and permit only a limited inquiry into the actual effects of a particular employment practice.¹⁶¹

proportion of blacks and whites. No disparate impact claim could be made out because the high school diploma requirement has no adverse impact on a protected group. Presumably, the employer would still be liable for disparate treatment discrimination, although designing an appropriate remedy would be problematic.

160. The causation distinction between the two theories has important practical consequences. Consider, for example, the "lack of interest" argument in determining the relevant population for measuring systemic disparate treatment or disparate impact. See *EEOC v. Sears, Roebuck & Co.*, 628 F. Supp. 1264, 1315 (N.D. Ill. 1986), *aff'd*, 839 F.2d 302 (7th Cir. 1988); MARY JOE FRUG, *POSTMODERN LEGAL FEMINISM* 12-18 (1992); Vicki Schultz, *Telling Stories About Women and Work: Judicial Interpretations of Sex Segregation in the Workplace in Title VII Cases Raising the Lack of Interest Argument*, 103 HARV. L. REV. 1750, 1815-39 (1990). The argument is that, for various social reasons, women lack interest in certain jobs and, as a result, should not be included in the population for determining whether discrimination has occurred. If the case alleges disparate treatment, the argument is sound. The goal is to determine whether this employer "ignores" sex in making employment decisions; thus, women who decide not to apply for jobs with the employer for reasons external to the employer should not be included in the population. They are simply irrelevant to the issue of whether this particular employer ignores or considers sex in making decisions. On the other hand, if the case alleges disparate impact, the goal is not to determine whether a particular employer ignores sex in making employment decisions, but rather to eliminate criteria that have a disparate impact on women and that are not sufficiently related to the business. Causation in disparate impact cases is blindered; therefore, we do not care whether the disparate impact on women occurs because the employer intentionally selected the criterion to eliminate women candidates or because of social forces external to the employer. Consequently, "uninterested" women should be included in the population when considering the disparate impact claim.

As previously noted, however, "interest" continues to be an important factor in determining relevant populations in disparate impact cases. See *supra* part II.C.2. A full criticism of determinations of the relevant population, although tangentially relevant to our discussion, is beyond the scope of this Article.

161. Important commentators have missed this distinction between treatment and impact cases and it has skewed their analysis. Professor Lamber, for example, wrongly claimed that "comparative statistics express the basis" of the disparate impact model, while "representation statistics form the essence" of the disparate treatment model. Julia

To say that the disparate impact model "approximates" the disparate treatment model does considerable violence to the normal notion of approximation.

Blinded causation, however, is consistent with a role for the disparate impact model. That role, harkening back to *Griggs*, is to eliminate "artificial, arbitrary, and unnecessary barriers to employment."¹⁶² The model seeks to eliminate barriers that do not further productivity concerns (are not "business justified") and that operate to eliminate blacks disproportionately (have a "disparate impact").¹⁶³ For two principal reasons, limiting the role of causation in making the disparate impact determination furthers this anti-barrier function, despite the anomalies it creates.¹⁶⁴

First, the limited role for causation is efficient. Blinded causation greatly simplifies disparate impact cases and, therefore, should result in quicker and cheaper cases. The simplification is obvious in several respects. First, the courts need not inquire into the extent to which societal factors contribute to any adverse screening

Lamber, *Discretionary Decisionmaking: The Application of Title VII's Disparate Impact Theory*, 1985 U. ILL. L. REV. 869, 897; see also Cox, *supra* note 6, at 77-81. Because the two types of statistics are convertible, they have virtually nothing to do with the underlying basis of either theory. Similarly, Professor Lamber says that in a world with complete information, the use of comparative or representation statistics should not matter. Lamber, *supra*, at 896. Since Professor Lamber also claims that those statistics define the essence of disparate impact and treatment discrimination, *id.* at 897, she implies that the type of discrimination would not matter in a world of full information either. But, of course, that is wrong. In a world of full information, we may know that an employment criterion has a disparate impact on blacks and that the employer did not adopt the criterion with discriminatory intent, or vice versa. The applicable model of discrimination would matter.

162. *Griggs v. Duke Power Co.*, 401 U.S. 424, 431 (1971).

163. Although our focus is different, our interpretation of the disparate impact model is largely in agreement with that of Allen and her colleagues. Julie O. Allen et al., *A Positive Theory of the Employment Discrimination Cases*, 16 J. CORP. L. 173 (1991). Allen's focus is on the relationship between the disparate impact and treatment models, while ours is on proof of causation in disparate impact cases. Using our different lenses, however, we both conclude that an anti-barrier rationale provides the best explanation of the disparate impact model. See *id.* at 176-77. Despite this general agreement, we likely disagree on some issues. We argue, for example, that a criterion with a disparate impact should be enjoined even if it has no adverse effect on any individual. See *supra* note 107. Allen's focus on the individual, rather than on the barrier, probably means that she would not agree. Allen et al., *supra*, at 178.

Others who have discussed anti-barrier rationales have generally limited their notion of barriers to those that are a consequence of past discrimination. See, e.g., Cox, *supra* note 6, at 100-07; Fiss, *supra* note 6, at 302-04; Perry, *supra* note 6, at 555-62. That is a much more limited notion of the anti-barrier rationale and one that does not square with the blinded notion of causation used in disparate impact cases.

164. For a discussion of the anomalies, see *supra* part III.A.

effects. Some of the proposed underlying theories for the disparate impact model would necessitate inquiry into societal factors.¹⁶⁵ But those inquiries would be factually intense and the courts are very ill-equipped as institutions to make them. The limited role for causation permits courts to avoid these difficult inquiries. Second, the limited role for causation means that the courts do not need to make difficult inquiries into intent issues. The courts are institutionally equipped to make these decisions (at least as equipped as any institution), but the decisions are fraught with conceptual and practical difficulties.¹⁶⁶ The limited role for causation means that the courts can avoid these issues as well. Third, the limited role for causation means that the courts need not disentangle the effects of all the employment criteria used by particular employers to determine the net effects of a particular criterion. The courts and litigants can instead focus on the particular criterion at issue and, to a large extent, ignore other criteria at play.

Efficiency arguments by themselves, of course, cannot justify the limited role for causation. A rule that required courts to find for all plaintiffs in disparate impact cases would be very efficient in terms of court and litigant time and resources, but it would be very imprecise in targeting employment criteria that screen inappropriately and are not business justified. A second factor justifying blindered causation is that it produces an acceptable level of precision. A number of factors indicate this.

First, the causation requirement *does* require plaintiffs to isolate the employment practice in question from other employment practices and demonstrate that it results in a disparate screening effect in a relevant population. Thus, even though somewhat limited, evidence of causation *is* necessary to establish a *prima facie* case.¹⁶⁷ The model does require evidence that the employment practice is linked to protected status in a way that may disadvantage a protected group.

165. Most obviously, the theories citing past discrimination as the rationale for the disparate impact model would require inquiries into societal discrimination. See, e.g., Eisenberg, *supra* note 96, at 62-79; Fiss, *supra* note 6, at 302-03; Perry, *supra* note 6, at 555-62.

166. See, e.g., Paul Brest, *Palmer v. Thompson: An Approach to the Problem of Unconstitutional Legislative Motivation*, 1971 SUP. CT. REV. 95 *passim*; John Hart Ely, *Legislative and Administrative Motivation in Constitutional Law*, 79 YALE L.J. 1205, 1212-17 (1970); Fiss, *supra* note 6, at 297-99.

167. See *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642, 656-58 (1989).

Second, situations in which there is a disjunction between the overall and net effects of a criterion¹⁶⁸ are likely to be fairly limited. Non-blinded causation would result in a search for such disjunctions in most cases. The costs of searching for such disjunctions may outweigh the benefits of dealing with the anomalies that result in the few cases in which such disjunctions exist.

Third, the costs of any resulting imprecisions would be low in any event because the disparate impact model applies only to conduct of low value. A disparate impact violation requires two basic determinations: (1) a criterion causes a disproportionate screening effect and (2) the criterion is not business justified. The causation element goes only to the first determination and, even if causation is found when it should not be, it will result in the invalidation of a criterion only if it is found not to be business justified. Thus, the only criteria at risk are criteria of low social value: Criteria that are not "job related for the position in question and consistent with business necessity."¹⁶⁹

Fourth, the blinded treatment of causation means that causation focuses on employment criteria operating as barriers rather than on who or what is ultimately responsible for the impact. That is, the high school diploma requirement in *Griggs* operated disproportionately as a barrier to the employment of blacks, even if the employer was not solely responsible for the adverse impact caused by the requirement. Societal discrimination in educational opportunity may have been primarily responsible for the adverse impact in some ultimate sense, but the focus of the disparate impact model is not on isolating such

168. See *supra* notes 99-106 and accompanying text.

169. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993). Note that the strength or weakness of this part of the argument depends on the degree of precision of the business necessity determination. If the business necessity determination is precise, so that all criteria found improper under the disparate impact model have no value in predicting enhanced productivity, this argument is very strong. On the other hand, if the business necessity determination is very imprecise, so that many criteria are found not to be business justified even though they have considerable predictive power, this argument is weak. Imprecisions in determining whether a criterion has a disparate impact may well preclude the use of a criterion with considerable value. This part of our argument, then, depends heavily on how precise one thinks the business necessity determination to be. As that determination becomes more precise, less precision in the disparate impact determination is necessary. A complete justification of the disparate impact model, then, would require a detailed analysis of the precision of the business necessity defense. Our focus is elsewhere, however, so we leave that part of the argument to another day.

ultimate responsibility, but instead on removing the barrier regardless of ultimate responsibility.¹⁷⁰

The anti-barrier role for the disparate impact model, although more modest than the two principal rationales for discrimination laws generally, can be roughly aligned with either. The anti-barrier role can be viewed as one articulation of the meaning of equal treatment. Equal treatment in the workplace means to treat equally productive people without regard to criteria that screen out one race disproportionately. Ironically, this articulation of equal treatment requires the central feature of equal treatment as it is traditionally articulated—to “ignore” race—to be violated. Anti-barrier equal treatment requires attention to the racial effect of non-productivity-related criteria.

Similarly, the anti-barrier role can fit roughly into the equal achievement rationale. Non-productivity-related barriers probably do not arise randomly. They are more likely to arise because of the lingering effects of past discrimination, thoughtlessness that favors traditional notions of merit, and a variety of other factors that tend to disfavor the traditionally disadvantaged.¹⁷¹ Although these factors need not be proved, their existence in most cases means that the disparate impact model overall¹⁷² will produce results consistent with the equal achievement rationale.

IV. A LOOK AT THE LENSES: THE APPROPRIATE TREATMENT OF CONCURRENCE AND STRATIFICATION IN DISPARATE IMPACT CASES

Our discussion of blindered causation may appear to suggest that the concurrence and stratification lenses have virtually no role in disparate impact analysis. This is not the case. On the contrary, the

170. This argument would be particularly strong if the only remedy for a disparate impact violation were an injunction against use of the criterion. The remedies, however, are broader than that. Employers may be liable to individuals whom the criterion adversely affected and for attorney's fees, even though they are only partially responsible for the adverse impact. Certainly, that allocation of the costs may spawn claims of unfairness. On the other hand, employers can avoid all liability by refraining from using such criteria. Moreover, as between the employer and the adversely affected individuals, it may well be fairer to impose the costs on the employer.

171. See Lamber, *supra* note 161, at 870; see also *supra* note 150 (noting that blindered causation is not concerned with whether the disparate impact is the product of past discrimination).

172. The anti-barrier role is a better explanation than the equal achievement rationale, however, precisely because it recognizes that circumstances will arise in which the disparate impact model will work counter to equal outcomes. See *supra* Table 4 and accompanying text.

goal of removing barriers that disproportionately exclude individuals who belong to a protected class provides an important role for both concurrence and stratification. One can construct causation in disparate impact analysis to remain blindered to many factors, while at the same time permitting use of the concurrence and stratification lenses to provide a more unblindered vision when necessary to pursue the underlying goals of the disparate impact model.

As suggested in Part II, numerous disparate impact possibilities arise upon application of concurrence and stratification. We now consider these situations, develop taxonomies for managing them, and discuss the appropriate legal treatment of disparate impacts that seem to appear or disappear as the lenses are applied. At all times, the anti-barrier role of the disparate impact model, coupled with the trade-off between efficiency and precision, will inform our legal analysis.

A. Legal Analysis of Concurrence Situations

1. Current Legal Interpretation

In any disparate impact analysis, in order to show causation, the plaintiff must first identify the particular employment practice or selection mechanism at issue.¹⁷³ Whether or not multiple practices or mechanisms can constitute a "particular" practice or mechanism for this purpose directly reaches the concurrence issue. Title VII, as amended by the Civil Rights Act of 1991, provides that if plaintiffs cannot isolate a particular factor in their disparate impact analysis, multiple components may be treated as one practice or mechanism as long as the plaintiffs can prove that the multiple components are not "capable of separation for analysis."¹⁷⁴ Thus, Title VII presently anticipates situations in which the plaintiff may establish a prima facie case through a concurrence argument.

The current legal rule is hardly clear, however; precisely when components are incapable of separation for analysis is uncertain. An authoritative interpretive memorandum provides that "[w]hen a decision-making process includes particular, functionally-integrated practices which are components of the same criterion, standard, method of administration, or test, such as the height and weight

173. This is the rule created by the Civil Rights Act of 1991. Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993).

174. Title VII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

requirements designed to measure strength in *Dothard* . . . the particular, functionally-integrated practices may be analyzed as one employment practice.”¹⁷⁵ Thus, this memorandum authorizes the use of concurrence by plaintiffs in situations in which the components are “functionally-integrated,” but the characterization of those situations is not fully delineated.

At one extreme, the memorandum would prevent the absurdity of having the plaintiff separate each employment-related test item for disparate impact analysis, because test items are viewed as components of the same test. At the other extreme, however, it does not indicate when the “whole” is so conceptually broad (and hence the components not sufficiently functionally integrated) that it must be broken into component parts for disparate impact analysis. For example, in *Dothard v. Rawlinson*, the height and weight requirements were used as proxies for strength.¹⁷⁶ The interpretive memorandum would seem to suggest that because these proxies were measuring one construct—strength—they may be functionally integrated for the purpose of showing a disparate impact. However, the height and weight requirements were certainly *capable* of being separated for analysis. The case itself reported statistics on the impact of each of the two requirements separately, in addition to their joint impact.¹⁷⁷ Further, the fact that they were being used to measure strength was not apparent until *after* the plaintiff’s prima facie showing of disparate impact; the strength justification was made by the employer in an attempt to show job-relatedness.¹⁷⁸ Thus, the interpretive memorandum’s inclusion of the *Dothard* example further muddies the issue of plaintiff’s prima facie showing.

A further complication is provided by the provision of the 1991 Act that allows employers to defend against a showing of disparate impact based on multiple components by demonstrating that a particular component does not have a disparate impact.¹⁷⁹ If the

175. 137 CONG. REC. S15,276 (1991). The Civil Rights Act of 1991 provides that only this memorandum (and no other legislative remarks) can be relied on as legislative history in construing portions of the Act relating to *Wards Cove*. Civil Rights Act of 1991, § 105(b), 105 Stat. 1071, 1075 (1991).

176. 433 U.S. 321, 329-31 & n.12 (1977).

177. *Id.* at 330.

178. *Id.* at 331-32 & n.14.

179. Title VII, § 703(k)(1)(B)(ii), 42 U.S.C. § 2000e-2(k)(1)(B)(ii) (Supp. V 1993). The employer may also defend by showing business necessity for the multiple components, but need not show business necessity for any component that can be shown not to have a disparate impact.

plaintiff has established a prima facie case by showing an impact for components that are not capable of separation for analysis, how can an employer possibly defend by showing that a *particular* component does not have a disparate impact?¹⁸⁰ Perhaps the notions of “functionally integrated” and not “capable of separation for analysis” are intended to be distinct, in which case the employer may be able to defend against functionally integrated practices by showing that one or more of them does not give rise to a disparate impact. However, this interpretation of “functionally integrated” would appear to undermine the very purpose of the exception, namely, to prevent *reductio ad absurdum*.

2. Proposed Legal Framework

When an employer uses interdependent components to establish applicant or employee qualification, analysis of each component individually may not give an accurate picture of whether an adverse impact exists.¹⁸¹ For example, although individual components may not appear to produce a disparate impact on members of a protected class, when considered concurrently those same components may produce such an impact. The model’s focus on removing barriers for individuals suggests, and possibly requires, that the employer’s joint or concurrent use of those components be examined. Thus, when employers use multiple components as part of the selection process, the joint effect or concurrence of those components leads to a potentially more complex factual inquiry.

The number of possibilities generated by considering an employer’s multiple components both individually and concurrently can be staggering. However, for purposes of legal analysis, we can simplify the taxonomy of types of cases. For example, when the employer uses two components or criteria, the concurrence lens generates six relevant possibilities, as illustrated in Table 13.¹⁸²

180. One possibility could be that the employer has superior information, but given liberal discovery rules, this possibility seems unlikely.

If components are capable of separation for analysis, the legal issue regarding who bears the burden of separating them still remains. Title VII is not consistent on this point. The employer defense discussed at this point in the text places the burden of separation on the employer-defendant, § 703(k)(1)(B)(ii), 42 U.S.C. § 2000e-2(k)(1)(B)(ii) (Supp. V 1993), but Title VII’s preceding subsection places the burden of separation on the plaintiff, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

181. See *supra* part II.A.

182. If the employer uses more than two components jointly, the same six possibilities can be generated as fitting our legal rule. This can be seen as follows. First, the same two columns would apply—all components together either produce a joint impact, or they do

TABLE 13: BREAKDOWN OF CONCURRENCE POSSIBILITIES

	<i>Joint Impact</i>	<i>No Joint Impact</i>
Each component alone has an impact	1	2
One component alone has an impact, other does not	3	4
Neither component alone has an impact	5	6

Cells 2 and 4 are easy to consider,¹⁸³ because the only possible claims available to the plaintiff are the “ordinary” disparate impact claims—i.e., available data indicate that one or both of the components, considered individually, have an impact on the plaintiff’s protected group. The concurrence of the two components produces no impact. For these two situations, the plaintiff should be able to establish a prima facie case of disparate impact based on either of the problematic components. In other words, the individual components are the specific employment practices that give rise to the disparate impact.

Further, once the plaintiff has established the prima facie case, the employer can defend only by proving business necessity for each individual component.¹⁸⁴ The employer should not be able to defend on the grounds that there is no concurrent or joint impact, because to do so would violate the “bottom line” prohibition articulated in *Connecticut v. Teal*.¹⁸⁵ Under the broader reading of

not. Second, the rows can be defined similarly, because we can consider as analogous three possibilities: either each component alone will have an impact (row 1), or some subset of the components will have an impact (individually or individually and collectively) but others will not (row 2), or none of the components alone will have an impact (row 3).

183. Actually, cell 6 is the easiest cell to consider. Because the components produce no impact, either individually or concurrently, no prima facie case may be established. We therefore do not consider this cell further.

184. The employer’s defense would be the same as in an “ordinary” disparate impact case. Each challenged component separately produces an impact, so each challenged component separately should be business justified.

185. 457 U.S. 440, 442 (1982).

“bottom line,”¹⁸⁶ individual claimants are deprived of opportunities by the *individual* components that result in a disparate impact, even if as a class, there is no disparate impact for the components being used together.¹⁸⁷ In cell 4, this is particularly clear: If the employer were to remove the one component causing the impact, the individual plaintiffs would suffer no disadvantage. Thus, the employer should have to business justify the impact-producing component in order to continue using it. In cell 2, removal of either component alone would not remove the disparate impact that the individual plaintiffs suffered; both components would need to be removed to alleviate the impact. In order to keep either of them, the employer should have to prove business necessity.¹⁸⁸

Cells 1 and 3 raise the possibility of multiple claims by plaintiffs, because for each of these cells, at least one component individually produces an impact, and the concurrence of the two components also produces an impact.¹⁸⁹ In other words, plaintiffs could in theory challenge a component in two different capacities—the component as used alone, and the component as used as part of a set (concurrence) that produces a joint impact.¹⁹⁰ We believe that plaintiffs should be restricted to challenges based on the components individually in such cases. The rationale is three-fold. First, plaintiffs are not deprived of a lawsuit by failing to allow claims based on concurrence. By assumption, cells 1 and 3 represent situations in which at least one of the components individually gives rise to a disparate impact, so a possible claim always exists in these cells.¹⁹¹ Therefore, the anti-barrier goal of the disparate impact model remains intact. Second, it

186. See *supra* part II.C.1.a.

187. The anti-barrier aspect of the model also supports this point. See *supra* part III.C.

188. That is, the employer should have to prove business necessity for each component individually that is demonstrated to have a disparate impact.

189. As the number of components increases, the number of possible claims also increases. For example, suppose an employer used three components as part of the selection process. In Cell 1 alone there would be three individual claims possible, one possible claim involving all three components concurrently, and a variety of possible claims based on combinations of these four claims and/or other potential claims arising from *pairs* of the components that may produce an impact.

190. For situations involving more than two components, the plaintiff would have possible challenges based on more than one concurrence. That is, not only might all three components together produce a disparate impact, but *pairs* of components could also lead to a showing of disparate impact.

191. Although a claim always exists, a legal rule that refuses to recognize joint effects in these circumstances does limit claims. Persons who are adversely affected by the joint effects of the components, but who are not adversely affected by the individual component with a disparate impact would not have a right to relief under this proposed rule.

would be difficult to conceive of the components in cells 1 and 3 as not being “capable of separation for analysis,”¹⁹² because it is not necessary to consider the components together in order to determine that some impact exists on a protected class. Thus, the statutory exception granted to plaintiffs in such a situation need not be invoked. Finally, the alternative rule could give rise to a large number of possible challenges, and it would be impractical to expect employers to defend against all of them, or for courts to be able to consider all of them.¹⁹³ The efficiency/precision trade-off contained within the model would be upset to produce more precision at the expense of great inefficiency.

Because plaintiffs would be allowed to challenge only individual components in cells 1 and 3, and because they would have to establish a *prima facie* case of disparate impact for *each* challenged component separately, the employer’s defense should be to prove business necessity for each component that is successfully challenged.¹⁹⁴

Cell 5 is the most problematic cell under current disparate impact law, because it is the cell that we believe must produce a cognizable claim based on concurrence. In this cell, although neither component alone produces a disparate impact on the plaintiff’s protected class, the joint effect of the two components serves disproportionately to exclude members of the plaintiff class.¹⁹⁵ Because the components, when considered individually, do not produce a disparate impact, plaintiffs will not be able to establish a *prima facie* case unless they can rely on a concurrence argument. It is only the employer’s concurrent use of the components for selection purposes that produces the impact.

192. Title VII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

193. To illustrate, consider cell 3, an employer that uses one employment criterion that produces a disparate impact. If joint effects claims were recognized, plaintiffs would be able to evaluate every other criterion (and every possible combination of criteria) for joint effects. Criteria that may be completely neutral in effect by themselves may have a joint impact because of the power of the impact caused by the problematic criterion. Each joint impact uncovered would expand the scope of the employer’s liability. *See supra* notes 189-90.

194. Once again, the employer’s defense is the same as in “ordinary” disparate impact cases. *See supra* note 184.

195. *See supra* Tables 1-3 in part II.A. If more than two criteria were operating, we would also allow concurrent challenges for the same reasons discussed in the text. Cell 5 always describes situations where no component on its own can be challenged, so plaintiffs’ only opportunity to eliminate barriers is to challenge joint applications of the components.

In this situation, the concurrence of the employer's selection criteria should be viewed as the particular employment mechanism that causes the disparate impact.¹⁹⁶ The anti-barrier goal would be thwarted were plaintiffs denied this opportunity. Additionally, because this causation cannot be revealed on a component-by-component basis, the components should not be viewed as "capable of separation for analysis"¹⁹⁷—the deleterious effect of the components cannot be assessed unless they are considered together. Thus, cell 5 falls within the statutory exception.

This legal rule suggests one meaning of not "capable of separation for analysis" for purposes of Title VII: As long as data are available about the concurrence of multiple components, and those data suggest that a disparate impact exists when the components are considered together but not when they are considered alone, the components would be viewed as not being "capable of separation for analysis."¹⁹⁸

196. It is the employer's joint use of the criteria that screens out protected class members disproportionately. This is the standard for causation as established in ordinary disparate impact cases. See *supra* part III.A.

197. Title VII, § 703(k)(1)(B)(i), 42 U.S.C. § 2000e-2(k)(1)(B)(i) (Supp. V 1993).

198. Another, more intuitive, meaning would be that data are not available on the individual components, so that it is impossible to measure the presence or absence of an impact unless the components are considered together. Thus, unavailability of individual component data is sufficient to establish that components cannot be separated for analysis. The meaning under our legal rule indicates that unavailability of individual component data is not necessary to a determination of whether components can be separated for analysis.

The full legislative history of the Civil Rights Act of 1991 indicates that Congress intended the "capable of separation for analysis" language to cover both situations:

If the requisite information is not reasonably available, it is entirely appropriate that complainants be able to challenge a group of practices that combine to produce one or more decisions with respect to employment. For example, in some instances a complaining party may know that a group of practices together have a disparate impact, but may not know which practice or practices caused that impact. In other instances, the complaining party may have adequate information as to the effect of each practice, but the disparate impact results only when a number of practices are considered as a group because no single practice results in a statistically significant exclusion. In both situations, part 703(k)(1)(B)(i) permits complainants to establish an unlawful employment practice by demonstrating that the employment practices result in a disparate impact as a group.

H.R. REP. NO. 40, 102nd Cong., 1st Sess., pt. I, at 42 (1991), *reprinted in* 1991 U.S.C.A.N. 549, 580.

The extent to which this legislative history can be relied upon to interpret the Civil Rights Act of 1991 is limited, however, because of Congress's attempt to restrict the available sources of legislative history. See *supra* note 175.

Further, this should be true regardless of whether the components could be considered to be “functionally integrated.”¹⁹⁹

Employers should be able to defend in a cell 5 situation by proving business necessity for the particular employment practice causing the impact—i.e., the concurrence of the two components used to determine qualification. This should require more than business justification of each component alone, because it is not the sole use of any one component that produces the impact. It should instead require business justification for the *use of the components together*. The anti-barrier goal of the disparate impact model makes clear that this is the required defense: Proof of business necessity for each component individually could allow employers to use virtually redundant selection criteria at the expense of individual plaintiffs.²⁰⁰

Further, employers should *not* be able to defend in a cell 6 situation by demonstrating the absence of a disproportionate impact when each component is considered separately. The employer is not using the components separately, but is imposing them together upon the plaintiff’s protected class. The disparate impact model is not blindered to the employer’s role in producing an impact; it is blind to

199. Whether components are functionally integrated would appear to be more a conceptual determination than a statistical determination. Thus, height and weight are functionally related because they conceptually relate to strength; test items are functionally related because they constitute a test. See *supra* note 175 and accompanying text.

Our determination of separability for analysis is not based on an existing conceptual relationship, per se. For example, education and experience requirements may not be viewed as conceptually related. Yet, if they produce an impact together, but not individually, we consider them to be incapable of separation for the purpose of analysis.

200. The criteria would be redundant in the sense that the second criterion added to the first does not increase overall usefulness of the selection process to the employer. For example, suppose a five-year experience requirement and a high school diploma requirement together produce a disparate impact on African-Americans, but individually neither produces such an impact. It could be that after requiring a minimum of five years of experience, the additional requirement of a high school diploma would add little to the employer’s ability to predict success on the job. Either requirement by itself, however, may be business justified. The employer might prefer to use the combination of requirements for the slight improvement in prediction. The slight improvement from adding the education requirement would cause individual plaintiffs to be excluded even though the addition of the education requirement may not significantly improve the employer’s selection process. Because that slight improvement comes at the cost of producing a disparate impact that excludes African-Americans, the employer should not be allowed the luxury of using the criteria together, unless the employer can prove that the improvement is substantial enough to meet business necessity.

causes *external* to the employer.²⁰¹ Thus, such an employer defense would not address the barrier caused by the employer.

Title VII, however, contains a provision that allows employers to defend against a showing of disparate impact based on multiple components by demonstrating that a particular employment practice does not have a disparate impact.²⁰² Both the concurrence lens and the fundamental purpose of the disparate impact model demonstrate that the Title VII defense is inappropriate. Individual components may not produce an impact even though their joint application does. The exclusion of persons through the joint or concurrent use of selection criteria is a very real exclusion, even if the exclusion does not result from the components in their separate, one-by-one application. Employers should not be permitted any defense that ignores the exclusion of individuals that has been caused by such concurrent use of selection criteria.

In summary, our legal framework arising from consideration of the concurrence lens maintains the existing disparate impact scheme while introducing one new situation in which plaintiffs should be permitted to establish a *prima facie* case—namely, when criteria considered together produce a disparate impact even though their separate application does not. Further, this situation produces a new dimension to the business necessity defense. To justify the joint or

201. See *supra* notes 92-94 and accompanying text. Some blinding occurs with regard to the employer's activities. We have noted that the model is blinding to the net effects of a component as actually applied in the workplace when that component, considered alone, produces an impact. That is not the situation we describe here, however. Here, the joint use of the components produces an impact. The parallel blinding would prohibit looking at the components on a one-by-one basis to try to argue that, individually, there was no effect.

202. Title VII, § 703(k)(1)(B)(ii), 42 U.S.C. § 2000e-2(k)(1)(B)(ii) (Supp. V 1993). This section actually refers to a "specific" employment practice, which is arguably distinguishable from the "particular" employment practice language used in § 703(k)(1)(B)(i). We could then interpret the Title VII defense as consistent with our scheme by arguing that the use of the word "specific" in § 703(k)(1)(B)(ii) was intended to refer to multiple component situations, which are to be treated as "one employment practice." § 703(k)(1)(B)(i). Thus, the employer defenses would be either to refute plaintiffs' showing of a disparate impact, or to prove business necessity for the concurrent use of the multiple components. The distinction between "specific" and "particular" employment practices seems rather strained, however. Additionally, *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989), which articulated the requirement that plaintiffs isolate the precise mechanism that causes the disparate impact, seemed to use both terms interchangeably in setting the standard: "As a general matter, a plaintiff must demonstrate that it is the application of a *specific* or *particular* employment practice that has created the disparate impact under attack." *Id.* at 657 (emphasis added). It is not likely that the statutory provision can be read as contradictory to this language in *Wards Cove*.

concurrent application of criteria that produce a disparate impact, employers must demonstrate substantial improvement in the ability to predict performance arising from the concurrent use. The statutory defense afforded by Title VII is inconsistent with the blindered causation principle underlying disparate impact theory.

B. Legal Analysis of Stratification Situations

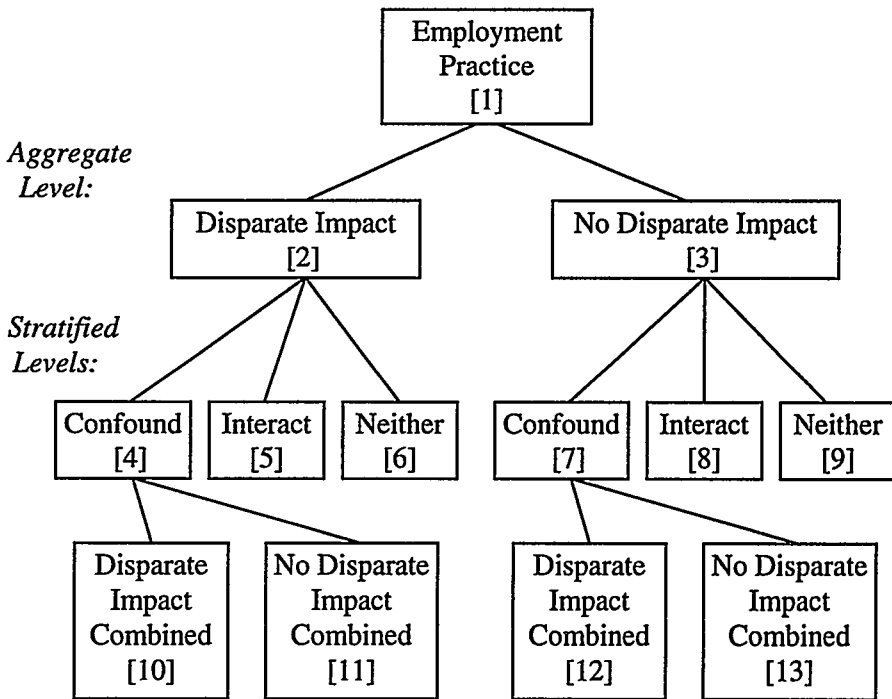
1. Canvassing the Possibilities

In disparate impact cases, plaintiffs must prove that an employment practice causes a disparate impact on a protected group. Stratification promises to improve the precision of that determination. But stratification also reduces efficiency because it increases the number and type of possible ways in which causation can be proved (or disproved) and, hence, the complexity of analysis at this stage of a disparate impact case. In this section, we will describe the stratification possibilities. We shall discuss the legal implications of these possibilities in the following two sections.

Causation is currently established by presenting evidence of a disparate impact at the aggregate level. Consider again our examples from Part II.B. To determine whether the employment-related test causes a cognizable disparate impact,²⁰³ the proportion of all female test-takers who pass the test is compared to the proportion of all male test-takers who pass the test. Under this aggregate approach, only two results are possible: Either the employment practice produces a cognizable disparate impact or it does not. Thus, under the current practice, analysis of the causation element would end at either Box 2 or Box 3 of Figure 1.

203. To be cognizable, the disparate impact would have to reach a level that is legally significant. Once again, the four-fifths rule is the most common articulation of the level of legal significance. *See supra* note 22.

FIGURE 1: STRATIFICATION POSSIBILITIES



Recognizing stratification as an appropriate analytical technique increases the number of possibilities. It may be that the relationship between sex and test result in our example has been influenced by the educational level of the test-takers. Stratifying the population of test-takers by educational level and then looking again at the relationship between sex and test-result may provide us with a different view of the relationship. But stratification increases the number of possible outcomes. For each of the two possibilities under the aggregate approach, stratification makes it possible that the result was obtained because of confounding effects (Boxes 4 and 7), because of interacting effects (Boxes 5 and 8), or in the absence of either confounding or interacting effects (Boxes 6 and 9).²⁰⁴

204. We have presented only some of the possible situations in our examples in part II.B. We now canvass all possibilities.

Stratification in some cases may not be appropriate, for either statistical reasons or legal reasons.²⁰⁵ In such a situation, we are in either Box 6 or 9: We have an aggregate result of either a disparate impact (Box 2) or no disparate impact (Box 3) and a determination that stratification is not appropriate. No further statistical analysis is required.

In other cases, stratification is appropriate. Two general possibilities exist here. The stratifying variable can either confound the relationship between test and sex or it can moderate the relationship.²⁰⁶

When an interaction is present (Boxes 5 and 8), the direction of the relationship between sex and test result change, depending on the level of the stratifying variable.²⁰⁷ In Table 7 of Part II.B, for example, education was a two-level stratifying variable. For non-college graduates, women did better than men on the tests; for college graduates, men did better than women. The relationship between sex and test changed, depending on the level (college graduate or not) of the stratifying variable. This example would fit into Box 5—a disparate impact existed at the aggregate level, but an interaction effect appeared after stratification. Box 8 covers situations in which no disparate impact exists at the aggregate level, but an interaction effect appears after stratification.²⁰⁸ An interaction effect means that different levels of the stratifying variable have contradictory outcomes regarding their impacts on the protected class. In these situations, it is not meaningful to pool across the stratifying levels to determine an overall relationship between the two variables of interest (such as sex and test result in the Table 7 example).

The other possible result when stratification is appropriate is that the stratifying variable has a confounding effect on the relationship of interest. This means that a relationship between the variables of interest (sex and test result) exists at every level of the stratifying

205. We discuss these reasons in subparts IV.B.2. and IV.B.3., *infra*.

206. Recall that a moderating relationship is the same thing as an interaction. See *supra* note 36 and accompanying text.

207. As mentioned previously, see *supra* note 36, when an interaction exists, it is always in addition to a confounding effect. Thus, from a statistical viewpoint, it makes sense to first determine whether an interaction exists. If so, then confounding must also exist; if not, then a separate determination is made as to confounding. For these reasons, we first discuss the interaction situation.

208. For example, when stratified, men would be favored within one level of education, women would be favored within the other, but when aggregated together, *ignoring* education, no impact occurs.

variable (educational level) and in the same direction, but that the *magnitude* of the relationship varies depending on the level of the stratifying variable. This can be seen in our Table 6 example in Part II.B, where the male pass rate on the test was higher than the female pass rate for both college graduates and non-college graduates, but the difference in male-female pass rates was greater for college graduates than for non-college graduates. When a stratifying variable has a confounding effect, the results from each level of stratification can be pooled to produce a measure of the overall relationship between the two variables of interest (sex and test result).²⁰⁹ Thus, if a disparate impact exists in the aggregate (Box 2) and a stratifying variable produces a confounding effect (Box 4), a disparate impact may also exist when the levels are pooled (Box 10), or it may not (Box 11). Similarly, if no disparate impact exists in the aggregate (Box 3) and a stratifying variable produces a confounding effect (Box 7), a disparate impact may or may not exist when the levels are pooled (Boxes 12 and 13).

A disparate impact has traditionally been proved by presenting evidence at the aggregate level only. Under this approach, only two possible outcomes are possible—either a disparate impact exists or it does not (Boxes 2 and 3). Recognizing stratification as a technique for evaluating impact increases the number of possible outcomes to eight (Boxes 5, 6, and 8 through 13). The next two sections will discuss the legal and statistical issues presented by each of these outcomes, keeping in mind the key characteristics of blindered causation for the disparate impact model.

2. Causation When Stratification Is Used Defensively

Two basic stratification situations exist. In the first, a disparate impact exists at the aggregate level and the employer attempts to defend²¹⁰ by stratifying (Figure 1, Boxes 4, 5, 6, 10, 11). In the second, no disparate impact exists at the aggregate level and the plaintiff attempts to present a prima facie case by stratifying (Figure 1, Boxes 7, 8, 9, 12, 13). We discuss the first situation in this section and the second in the next section.

To illustrate the first type of situation, let us return to our original example: An employer uses a test as a selection device. Assume, as

209. This does not *eliminate* the stratifying variable; instead, it explicitly accounts for it by computing results within each of its levels and pooling the results across the levels.

210. We use the language "the employer attempts to defend" purposefully. See *infra* notes 211-14 and accompanying text.

we did before, that the test has a disparate impact against women at the aggregate level. The employer is attempting to defend against this prima facie case by stratifying—by dividing the test-takers into those who are and are not college graduates.

First, a preliminary point on burdens of proof is in order. In normal disparate impact cases, the plaintiff bears the burden of proving a disparate impact by a preponderance of the evidence and, if the employee meets that burden, the burden of production and persuasion shifts to the employer to prove business necessity by a preponderance of the evidence.²¹¹ Stratification cases arise in the space between those two points. The plaintiff has met its burden of proving a disparate impact at the aggregate level²¹² and the employer defends, not by attempting to prove business necessity, but by attempting to undermine through stratification the demonstration of a disparate impact. For several reasons, the employer should bear the burdens of production and persuasion at this stage. First, ordinary cases have always permitted plaintiffs to establish a prima facie case based on aggregate statistics. Imposing a burden on plaintiffs to counter stratification possibilities would increase the burdens in disparate impact cases as they have traditionally been understood, and would produce large inefficiencies. Second, defendants are more likely to have ready access to the types of information necessary to engage in stratification.²¹³ Third, the types of restrictions that should be placed on the availability of stratification as a defense (for example, that the stratifying variable is justified by business neces-

211. Title VII, §§ 701(m), 703(k)(1)(A)(i), 42 U.S.C. §§ 2000e(m), 2000e-2(k)(1)(A)(i) (Supp. V 1993).

212. More specifically, in this type of stratification case, the plaintiff bears the initial burden of production and persuasion to prove, by a preponderance of the evidence, the existence of a disparate impact at the aggregate level.

213. The Supreme Court has been relatively dismissive of this type of argument because of the liberality of discovery rules. See *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642, 657-58 (1989); *Texas Dep't of Community Affairs v. Burdine*, 450 U.S. 248, 258 (1981). But here efficiency reasons are present to impose this burden on employers even with liberal discovery rules. If the burden were on plaintiffs to counter stratification possibilities, plaintiffs in every case would have to discover from employers all information possibly relevant to stratification to meet their burden of disproving stratification possibilities. Employers then would have to compile the information. With the burden on employers, on the other hand, employers can assess the cost of accessing the necessary data. The employer may decide in some cases that the cost of accessing the data exceeds the likely benefits of the data. Similarly, the employer could focus on the stratification possibilities that are most likely to be successful and expend its defense resources on those alone, rather than on all possibilities.

sity)²¹⁴ align with other defenses for which the employer already bears the burden of proof.

Four possibilities exist after stratification: (1) a confounding effect is present, but a disparate impact exists after the stratifying levels are pooled (Box 10); (2) a confounding effect is present and no disparate impact exists after the stratifying levels are pooled (Box 11); (3) an interaction effect is present (Box 5); or (4) no confounding or interaction effect is present (Box 6).

Two of these possibilities require only brief discussion. The Box 10 situation does not present any new problems because a disparate impact exists at both the aggregate and stratified levels.²¹⁵ The employer could not rely on stratification as a defense in this situation and the case would proceed in the same way as an ordinary case based on aggregate data; that is, the burden would shift to the employer to defend by proving that the test is business justified. Similarly, the Box 6 situation is relatively easy. In this box, one of two things has happened; either (1) stratification is statistically inappropriate so no legitimate confounding or interacting effects can be observed, or (2) stratification is appropriate, but the stratifying variables do not present confounding or interacting effects. In either event, the employer will be unable to make out a stratification defense and, as a result, the plaintiff's initial showing of a disparate impact at the aggregate level should stand. Once again, the case should be treated the same as an ordinary disparate impact case; the employer can defend successfully only by proving business necessity.²¹⁶

Two possibilities remain; both present more difficult problems. Let us consider Box 11 first—stratification produces a confounding effect and no disparate impact exists after the stratified levels are appropriately pooled. In our original example in Part II.B, the test produced a disparate impact at the aggregate level, but no disparate

214. See *infra* notes 220-22 and accompanying text.

215. Recall that when confounding effects are present, pooling the levels for analysis, rather than treating the stratified levels separately, is statistically appropriate. See *supra* note 28.

216. The first possibility here—that stratification was not appropriate—is important. Typically this means that stratification reduces the power of the statistical testing procedure so that confounding or interaction effects cannot be determined. For a discussion of statistical power, see e.g., JACOB COHEN, *STATISTICAL POWER ANALYSIS FOR THE BEHAVIORAL SCIENCES* (2d ed. 1988); Jacob Cohen, *A Power Primer*, 112 *PSYCHOL. BULL.* 155 (1992); Richard Goldstein, *Two Types of Statistical Errors in Employment Discrimination Cases*, 26 *JURIMETRICS J.* 32 (1985).

impact existed at either of the stratified levels (college graduates and non-college graduates) or when the stratified levels were appropriately pooled.

To reach a first approximation of the proper resolution in this situation, consider how this fits into the disparate impact framework developed for ordinary cases. The employer's attempt to defend against the disparate impact at the aggregate level in this situation can be analogized to a situation in which the employer attempts to defend by relying on causative factors external to the employer. In our example, the employer's evidence demonstrates that the disparate impact is not caused by its use of the test alone, but by the test *and* the underlying social factors (here, educational level) that interact with the test to produce the disparate impact. In ordinary cases, evidence of contributing causal factors external to the employer is irrelevant.²¹⁷ As a first approximation, stratification evidence should receive the same treatment. That is, evidence of social factors contributing to the disparate impact of the test in our example should receive the same treatment as evidence of social factors contributing to the disparate impact of the high school diploma requirement in *Griggs*: Both are irrelevant.²¹⁸

Stratification, however, can be viewed not only as an attempt to explain a disparate impact based on external social factors, but also as an attempt to demonstrate that the test requirement does not produce any actual adverse impact in the particular workplace. Instead of arguing that it is not responsible for an impact caused by external factors, the employer would be arguing that no impact exists within its workplace. At first glance, this argument might seem to be prohibited by yet another blinder—the blinder that prohibits an examination of the “net effect” of one criterion in the workplace.²¹⁹ Notice, however, that the employer would not be arguing that there is no net effect of the test requirement due to other requirements used in the workplace. The stratifying variable (education) is not an employer requirement, by assumption. Thus, the employer's argument falls somewhere between “external causes” and “net effects,” and blindered causation does not rule out the employer's

217. See *supra* part III.A. This would be the situation in Tables 5 and 6, see *supra* part II.B, if pooling in Table 6 did not produce a disparate impact.

218. The analogy suggests, then, that the same reasons supporting blindered treatment of causation in ordinary cases support blindered treatment of causation in stratification situations. See *supra* part III.A.

219. See *supra* notes 98-101 and accompanying text.

attempted defense. In fact, stratification can be seen as increasing the precision used to determine whether an impact exists. If no adverse impact exists, obviously, no disparate impact liability should attach.

The proper view depends on how closely the stratifying variable relates to the particular workplace. If the stratifying variable is tangential to the particular workplace, it is analogous to a social factor and, therefore, should be ignored. The employer should be liable for the aggregate disparate impact. On the other hand, if the stratifying variable is a factor closely related to legitimate employer interests in the particular workplace, the employer has demonstrated that no cognizable disparate impact exists. In this situation, the finding of no disparate impact in Box 11 should result in no employer liability.

The existing business necessity standard supplies ready-made criteria for distinguishing between these two situations. If the stratifying variable is justified by business necessity, it can operate to limit liability; if it is not justified by business necessity, it should be ignored. Using the business necessity standard for making the distinction has several advantages:²²⁰ The standard is the one generally applied when employers attempt to defend against an aggregate disparate impact, it focuses on the proper relationship (the relationship between the stratifying variable and ability to do the job),²²¹ and it comes with a wealth of case law defining its parameters.²²²

This standard imposes fairly stringent limits on the ability of employers to use stratification defensively. Stratification could be used defensively only if an employer could convince the factfinder that it was necessary to distinguish between employees based on the stratifying variable, even though the employer did not do so directly. The standard would also make it impossible for an employer to

220. Having *some* standard is necessary. In the absence of a standard, employers could engage in a free-wheeling search for stratifying variables that might explain an aggregate disparity, regardless of their contextual implausibility. Astrological sign as a stratifying variable, for example, might explain away an aggregate disparate impact in some circumstances, despite its implausibility as a relevant factor. A standard is necessary to constrain the scope of the search for explanatory stratifying variables.

221. Note that this relationship is different than the relationship examined by the "reasonable relationship to the test" criterion, discussed below. See *infra* note 226. Here the relevant relationship is between the stratifying variable and ability to perform the job; there the relevant relationship is between the primary and stratifying variables.

222. Any other standard would require a number of cases to define its parameters. The business necessity standard, although by no means precise, has been defined by a number of cases and is a familiar concept to the courts. See, e.g., *Connecticut v. Teal*, 457 U.S. 440, 451 (1982); *Albemarle Paper Co. v. Moody*, 422 U.S. 405, 425 (1975).

defend successfully by stratifying based on time,²²³ unless it was known why time tended to ameliorate the aggregate disparate impact.

In summary, an employer can always defend against an aggregate disparate impact by proving that the primary variable (the test in our example) is business justified. This is a complete defense; the employer can continue to use the primary variable and is not liable at all. In addition, the employer can defend by demonstrating that stratification is appropriate,²²⁴ produces Box 11 results, and that the stratifying variable is business justified.

These same basic principles should apply in the remaining situation, Box 5. Here stratification uncovers an interaction effect. For example, the aggregate disparate impact based on a test could be produced by a strong disparate impact against female non-college graduates, with no disparate impact against female college graduates. Once again, the employer, as always, can defend by proving that business necessity justifies the primary variable. In Box 5, the employer can also defend by demonstrating that stratification is appropriate and produces an interaction effect, and that the stratifying variable is justified by business necessity. In contrast to Box 11, in Box 5 such a showing would not save the primary variable. The employer would still be enjoined from continuing to use the test. The showing would, however, limit the employer's liability to individual class members. Relief would be limited to those who were in the disfavored subgroup—in our example, to those who failed the test and were non-college graduates. Female college graduates would not be entitled to relief even if they failed the test, because the test did not cause that subgroup of women to suffer a disparate impact.

3. Causation When Stratification Is Used Offensively

Stratification can also be used offensively. If no disparate impact exists at the aggregate level, plaintiffs may stratify in an attempt to

223. A test used by an employer, for example, may have a disparate impact in the aggregate, but may not have a disparate impact if the test-takers are stratified by time (e.g., test-takers who took the test in 1992 versus those who took the test in 1993). Under the standard we propose, however, the employer would not be able to defend in this way unless the employer could demonstrate that the stratifying variable is "job related for the position in question and consistent with business necessity." Title VII, § 703(k)(1)(A)(i), 42 U.S.C. § 2000e-2(k)(1)(A)(i) (Supp. V 1993). Time by itself can never meet that standard. To defend successfully, the employer would have to demonstrate how the test-takers in the two time periods differed (perhaps one set had better educational credentials) and then demonstrate that that criterion was business justified.

224. See *supra* note 216.

prove a disparate impact. Four basic possibilities exist when stratification is used offensively: (1) a confounding effect is present and a disparate impact exists after pooling the stratifying levels (Box 12); (2) a confounding effect is present and no disparate impact exists after pooling the stratifying levels (Box 13); (3) an interaction effect is present (Box 8); or (4) no confounding or interaction effect is present (Box 9). These possibilities mirror those present when stratification is used defensively.²²⁵

Boxes 13 and 9 do not present plaintiffs with any new opportunities to establish a disparate impact. In Box 13, stratification produced a confounding effect, but no disparate impact was present after pooling. The plaintiff's position has not changed from Box 3 (the aggregate result)—plaintiff has not demonstrated a disparate impact. In Box 9, either stratification is not appropriate or it has not produced a confounding or interacting effect. Once again, plaintiff's position is the same as it was in Box 3. Plaintiff's case fails because she has not demonstrated a disparate impact.

Plaintiffs can use stratification offensively in Boxes 12 and 8. Consider Box 12 first, in light of our continuing example. The employer uses a test that does not have a disparate impact against women in the aggregate (Box 3). Educational level, however, has a confounding effect and when the stratifying levels are pooled, a disparate impact against women exists (Box 12). The anti-barrier goal requires that plaintiffs be allowed to establish such a claim. To reach this point, plaintiffs would have to prove that stratification is statistically appropriate and that the stratifying variable bears a reasonable relationship to the primary variable.²²⁶ Assuming the plaintiff can meet these burdens, plaintiff has established a *prima facie* disparate impact case.

The burden would then shift to the employer to demonstrate that business necessity justifies *either* the primary variable *or* the stratifying

225. See *supra* part IV.B.2.

226. This standard fills the same role as the business necessity standard when stratification is used defensively—it limits the ability to engage in a free-wheeling search for stratifying variables that might produce a pooled disparate impact, regardless of their contextual implausibility. See *supra* note 220. It thus maintains a balance between precision and efficiency in the model. This standard, however, focuses on a different relationship. The “reasonable relationship” standard focuses on the relationship between the stratifying and primary variables. A test and educational level would bear a reasonable relationship to each other; a test and astrological sign would not. The business necessity standard focuses on the relationship between those variables and ability to perform the job.

variable. Proving that the primary variable is business justified imposes the same burden on the employer as in ordinary cases. An employer in this situation, however, can also defend by proving that the stratifying variable is business justified. Proof of that would mean that the employer is justified in distinguishing between employees/applicants based on the stratifying variable and, as a result, that plaintiffs cannot rely on that variable to establish a prima facie case. If the employer cannot demonstrate that either the primary or the stratifying variable is business justified, the plaintiffs have established a disparate impact violation.

These same principles apply in Box 8. In Box 8, no disparate impact exists at the aggregate level, but at the stratified level the test produces a disparate impact against women in one sub-category (e.g., non-college graduates) but not women in the other (e.g., college graduates). The plaintiff should be able to establish a prima facie case in this category if stratification is appropriate.²²⁷ The employer can defend by proving that either the primary variable or the stratifying variable is business justified. If the employer cannot meet this burden, use of the primary variable should be enjoined, but the employer should be liable only to the women who suffer the disparate impact (non-college graduates).

V. CONCLUSION

In this Article, we have viewed the disparate impact model through two new lenses: concurrence and stratification. The lenses proved to be extremely powerful. They permitted us to see the model from a different angle, an angle that highlighted the nature of the model, the source of its power, and its underlying purpose. The lenses also proved to be interesting in their own right. The lenses present a host of difficult factual situations that the courts have barely begun to address. We have described those situations and suggested how they ought to be resolved.

At the same time, our discussion has raised at least three new questions that we have not had space (or energy) to address fully here.²²⁸ First, our suggested analyses will require courts to distin-

227. Once again, two factors determine appropriateness: statistical appropriateness and a reasonable relationship between the primary and stratifying variables. *See supra* notes 216 and 226.

228. There are other, more tangential, issues that arise as well. For example, we have already noted that the relevant population for purposes of disparate impact analysis has not been thoroughly considered by legal scholars, and may in fact be problematic under

guish between concurrence and stratification. We have distinguished the two by defining concurrence as situations in which an employer uses more than one employment criterion and defining stratification as situations in which a factor not explicitly used by the employer is considered. Although this distinction is easy to state, it will not always be easy to determine whether an employer "uses" an employment criterion. Suppose, for example, that an employer requires applicants to have a high school diploma and, in addition, often receives applications from applicants who have received word-of-mouth recommendations from existing employees. The plaintiff believes that she and members of her protected group are disproportionately excluded by both factors together, but not by either one alone. Should she be allowed to claim that this is a concurrence situation? Or, should she have to use the high school diploma requirement as the primary criterion and stratify by word-of-mouth recommendations (applicants who apply because of word-of-mouth recommendations versus applicants who apply after hearing of the employer through other methods)? The court must decide whether the word-of-mouth technique is attributable to the employer to determine the proper method of analysis. At the margin, the decision may be difficult.²²⁹

Our analysis also raises, but does not consider, the issue of how to deal with continuous, rather than categorical, variables. For simplicity, we used only categorical variables in our examples (i.e., employees either passed or failed a test, or had or did not have a high school diploma). But, obviously, concurrence and stratification situations can arise with respect to continuous variables as well. For example, an employer may use one categorical variable (pass or fail a test) and one continuous variable (years of experience) to determine

existing Supreme Court language. *See supra* note 160 and accompanying text. Our focus now is on the three unresolved issues that relate directly to the lenses themselves.

229. This type of determination is not unique to concurrence and stratification situations. If the plaintiff were challenging only the "word-of-mouth" technique for obtaining potential employees, the court would have to decide if the technique was an employment practice being used by the employer. *See EEOC v. Miniature Lamp Works*, 947 F.2d 292, 305 (7th Cir. 1991) (holding that company's passive reliance on word-of-mouth to fill vacancies did not constitute an employment practice); *Catlett v. Missouri Highway & Transp. Comm'n*, 587 F. Supp. 929, 946-47 (W.D. Mo. 1983) (finding company responsible for word-of-mouth recruiting). Increased recognition of concurrence and stratification, however, may increase the frequency with which courts are faced with such issues.

suitability for promotion.²³⁰ It is easy to understand conceptually that the categorical and continuous variables may operate jointly to produce a disparate impact even though neither does individually in just the same way that two categorical variables might.²³¹ We avoided consideration of continuous variables because the mathematical difficulties would have obscured our goal of focusing on conceptual and policy issues. Nevertheless, that is a relevant topic for a later day.

Finally, we have not discussed in any detail the statistical methodologies that are appropriate to identify and assess confounding and interaction relationships. Fortunately, well-accepted statistical methodologies exist for analyzing data viewed through the concurrence and stratification lenses. Many of these techniques have already been used, albeit with a slightly different focus, in disparate treatment cases.²³² Thus, both courts and social scientists are relatively well-equipped to handle the statistical complexities that will arise through application of our suggested analyses. Nevertheless, further elucidation of these methodologies, and especially of their application in the disparate impact context, is important. Once again, however, we leave that topic to another day.

230. One could attempt to treat experience as a categorical variable in various ways, but such attempts may be impossible, impractical, or unrealistic.

231. Similar examples can arise for stratification purposes. We do not consider them here specifically, because our discussion is an abbreviated one serving only to introduce the issue.

232. One such technique, the Mantel-Haentzel technique for pooling across levels of a confounding factor, is discussed in several sources. See, e.g., MICHAEL O. FINKELSTEIN & BRUCE LEVIN, *STATISTICS FOR LAWYERS* 241-49 (1990); Joseph L. Gastwirth, *Statistical Methods for Analyzing Claims of Employment Discrimination*, 38 *INDUS. & LAB. REL. REV.* 75 (1984). The most popular set of techniques stem from application of the linear model. These techniques—popularly referred to as various forms of “regression” analysis—allow for determination of interaction and/or confounding effects. Regression analysis has been widely used in disparate treatment cases involving compensation. See, e.g., JOHN NETER ET AL., *APPLIED LINEAR REGRESSION MODELS* (1983). A special type of regression known as logistic regression would be directly applicable to disparate impact cases. See DAVID W. HOSMER & STANLEY LEMESHOW, *APPLIED LOGISTIC REGRESSION* (1989) (containing extensive discussion of the methodology, and how to use it to detect confounding and interacting effects).

