

ARTIFICIAL INTELLIGENCE AS A LESS DISCRIMINATORY ALTERNATIVE

Allan G. King & Alice H. Wang\*

Abstract

This Article considers the role of the “less discriminatory alternative” (LDA) in disparate impact litigation under Title VII of the Civil Rights Act and related statutes. The question posed is: has assigning the burden of proof of identifying LDAs to plaintiffs resulted in the adoption of these alternatives? The answer is no. But well-meaning employers have been reluctant to adopt practices that might increase the presence of minority employees in the workplace because the anti-discrimination laws prohibit reverse discrimination. This Article discusses the legal constraints that impinge on employers who wish to unilaterally search for and adopt an LDA, and explains how artificial intelligence (predictive analytics, specifically) can prove helpful. Artificial intelligence may improve the accuracy of employee selections and, by constraining the algorithm regarding its analysis of seed data but not selections themselves, can lawfully enhance the presence of minorities and women in the workplace.

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## INTRODUCTION

Title VII views discrimination as a dichotomy. Either an employer acts in a discriminatory manner, or they do not. If an employer uses technology in a decision-making process, either that technology discriminates against demographic groups, or it does not. Or, as it pertains to this Article, either a selection procedure<sup>1</sup> discriminates against one or more demographic groups, or it does not. There is an exception regarding claims of disparate impact, as discrimination may become more visible by comparing alternatives. For example, once an employer has established the legitimacy of a selection procedure, the plaintiff still may prevail by demonstrating that there is a less discriminatory alternative (LDA) to the employer's current selection procedure, which the employer has refused to adopt. This sole provision of Title VII requires employers to engage in "less discrimination," countenancing an alternative that may allow residual disparities between groups to persist.

As we will explain, this provision, aimed at the discriminatory impact of neutral selection procedures, has not borne fruit. It appears that in no instance have plaintiffs persuaded a court that an LDA served the employer's legitimate interest in efficiently making valid selections. This reality hardly is surprising because most plaintiffs lack the means, in terms of resources, data, and expertise, to design their own alternatives. If they could, rather than being plaintiff-employees, they would be in the human resources consulting business. Instead, when less discriminatory selection procedures have met with court approval, they typically have been advocated by employers and analyzed as "voluntary affirmative action plans." These are scrutinized by criteria that have minimal overlap with a plaintiff's burden to establish an LDA. As a result, two standards apply in assessing the lawfulness of LDAs, which differ depending on whether employees or employers propose them. In a nutshell, plaintiffs must propose a viable substitute for a current discriminatory procedure, and employers must be accountable for offering an acceptable remedy for past discrimination.

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1. "Selection procedure," as used herein, refers to "[a]ny measure, combination of measures, or procedure used as a basis for any employment decision." 29 C.F.R. § 1607.16.

This Article explains how the Supreme Court's opinion in *Ricci v. DeStefano*,<sup>2</sup> coupled with artificial intelligence (AI), provides a bridge between these approaches. First, it discusses how LDAs became an adjunct to Title VII law, initially developed by the courts and ultimately codified by the Civil Rights Act of 1991. Second, it documents how courts have refused to adopt LDAs proposed by plaintiffs and have instead approved those proposed by employers if they are "voluntary affirmative action plans." Consequently, Title VII has failed to realize its promise as an engine for reducing the adverse impact of employee selection procedures. Finally, this Article explains how AI can devise LDAs that increase the representation of women and minorities while minimizing the risk of violating Title VII.

### I. THE EVOLUTION OF THE "LESS DISCRIMINATORY ALTERNATIVE"

Since the Supreme Court first recognized that neutral selection procedures might impact demographic groups discriminatorily, the use of objective selection procedures has grown considerably. Despite their objectivity, these selection procedures may favor one demographic group over another. In such instances, an employer must demonstrate that these procedures are "valid" to avoid liability and continue using the challenged selection procedure.<sup>3</sup> An employer may nevertheless be liable if the plaintiff demonstrates an LDA selection procedure that equally serves the employer's legitimate business needs, which the employer refuses to adopt.<sup>4</sup>

Only the rare plaintiff, or plaintiff's counsel, has at hand a library of alternative selection procedures with the potential to prove themselves less discriminatory but equally valid. In the nearly sixty years since Title VII's inception, only a handful of cases have reached this last element of proof, and none we can find in which the plaintiff ultimately prevailed.

The LDA reflects the wisdom that less discriminatory selection procedures ought to be encouraged, despite some disproportionality that may remain. In other words, if an employer uses a test that adversely impacts a protected group but learns of a less discriminatory substitute, the public interest is served if the LDA, although imperfect, replaces the previous selection procedure. If this were the norm, we would see steady

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2. 557 U.S. 557, 559 (2009).

3. See Uniform Guidelines on Employee Selection Procedures, 29 C.F.R. §§ 1607.5, 1607.14 (1978) (explaining the general and technical standards for validity studies). These Guidelines are intended to provide a framework to assist organizations in determining the proper, i.e., "valid," use of employment selection procedures based on validation techniques. Courts have held that a "validated" selection procedure is one that has "a manifest relationship to the employment in question." See, e.g., *Clady v. Los Angeles Cnty.*, 770 F.2d 1421, 1427 (9th Cir. 1985), quoting *Griggs v. Duke Power Co.*, 401 U.S. 424, 432 (1971).

4. 42 U.S.C. § 2000e-2(k)(1)(A)(ii).

progress towards more equal outcomes. Yet, as the neglected stepchild of Title VII litigation, the LDA has failed to reach its potential. In our view, AI has the potential to identify efficient LDAs that invigorate this provision of Title VII, which until now has been dormant.

Plaintiffs were assigned the burden of identifying an LDA in an era when courts mistakenly anticipated that plaintiffs could provide them a set of selection procedures, assess their utility, and order employers to adopt one deemed least discriminatory.<sup>5</sup> As opposed to relying principally on Plaintiffs to identify an LDA when they are ill-equipped to do so, AI will make it easier for courts to fulfill that role for at least three reasons. First, AI describes the creation and selection of selection procedures. AI tools typically are developed and evolve based upon metrics regarding a particular group of employees. Second, the inner workings of these tools are likely to be proprietary and, even if disclosed, are unlikely to be understood by laypersons, such as plaintiffs. As a result, casting plaintiffs as the engines of progress toward LDAs is inevitably futile because they lack the information necessary to suggest refinements to existing methods. It is far better to encourage employers and developers of AI to spearhead those efforts. In particular, as explained, AI can provide the “strong basis in evidence” necessary for an employer to adopt an LDA. Third, AI can explicitly distinguish between permissible goals and impermissible quotas, providing a lawful alternative for increasing the representation of women and minorities.

We begin by documenting the fruitless search for LDAs, as led by plaintiffs, throughout the history of Title VII. Next, we explain in broad strokes how AI works in employee selection. Lastly, we illustrate how AI can be constrained to search for LDAs and minimally disruptive affirmative action plans and explain why this search lies within the bounds of Title VII, as the Supreme Court prescribes.

### A. *The Supreme Court’s Formulation*

#### 1. Plaintiffs Must Prove There is a Less Discriminatory Alternative

Title VII prohibits both intentional discrimination (disparate treatment) and discrimination emanating from practices that are fair in form but nevertheless work to the disadvantage of one or more demographic groups (disparate impact).<sup>6</sup> A disparate-treatment claim arises “where an employer has ‘treated [a] particular person less

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5. See *Ricci*, 557 U.S. at 578 (discussing case law that required plaintiffs to provide legitimate alternatives in disparate impact suits).

6. *Federal Laws Prohibiting Job Discrimination Questions And Answers*, U.S. EQUAL EMP. OPPORTUNITY COMM’N (Nov. 21, 2009), <https://www.eeoc.gov/fact-sheet/federal-laws-prohibiting-job-discrimination-questions-and-answers> [<https://perma.cc/WB52-TSQ3>].

favorably than others because of” a protected trait.”<sup>7</sup> If a claimant brings a disparate-treatment claim, they must establish that an employer possessed a “discriminatory intent or motive” for an adverse employment action.<sup>8</sup> Disparate-impact claims seek to remove “artificial, arbitrary, and unnecessary barriers to employment when the barriers operate invidiously to discriminate . . . .”<sup>9</sup> In *Griggs v. Duke Power Co.*, Black employees at Duke Power Company’s Dan River Steam Station brought suit alleging employment discrimination.<sup>10</sup> The company had openly discriminated on the basis of race before Title VII became effective.<sup>11</sup> At the Dan River Steam Station, employees were assigned to one of five different departments: (1) labor; (2) coal handling; (3) operations; (4) maintenance; or (5) laboratory and test.<sup>12</sup> Black employees were employed only in the labor department.<sup>13</sup> The highest-paying job in that department paid less than the lowest-paying jobs in other departments.<sup>14</sup> The company had two employment policies that caused this pattern of job assignments. First, the company required a high school diploma for any new hire in all departments except for the labor department, and for transfer from the labor department to the other, better-paying departments.<sup>15</sup> Second, new hires to any department besides the labor department, or employees seeking to transfer out of the labor department, had to pass two professionally prepared aptitude tests and possess a high school education.<sup>16</sup> These requirements permitted few Black employees to be hired or transferred to the better-paying departments.<sup>17</sup> A group of thirteen Black employees sued, and the Fourth Circuit affirmed a decision by the district court in favor of the employer, finding no discriminatory motive in adopting the education and testing requirements.<sup>18</sup>

The Supreme Court reversed, holding that Title VII proscribes overt discrimination as well as practices that are “fair in form, but

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7. *Ricci*, 557 U.S. at 577 (quoting *Watson v. Fort Worth Bank & Tr.*, 487 U.S. 977, 985–86 (1988)).

8. *Id.*

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

10. *Id.* at 426.

11. *Id.* at 426–27.

12. *Id.* at 427.

13. *Id.*

14. *Id.*

15. *Griggs*, 401 U.S. at 427.

16. *Id.* at 427–28.

17. *Id.* at 430 (“[W]hites register far better on the Company’s ‘alternative requirements’ than Negroes.”); see also *id.* at 430 n.6 (discussing how an Equal Employment Opportunity Commission (EEOC) decision found that the Wonderlic and Bennett Mechanical Comprehension Test—the two aptitude tests used by Duke—resulted in fifty-eight percent of White employees passing the tests, compared to just six percent of Black employees).

18. *Id.* at 428.

discriminatory in operation.”<sup>19</sup> The Court held that practices, procedures, or tests, neutral on their face, were unlawful if they operated to discriminate based upon an impermissible classification.<sup>20</sup> The holding stated that “touchstone is business necessity,” meaning if a job qualification or requirement is job-related, its use may be permissible notwithstanding its adverse impact.<sup>21</sup> But if a requirement is not job-related and operates to exclude members of a protected class, the requirement is unlawful.<sup>22</sup> Ultimately, it is the employer’s burden to establish that a given requirement is a business necessity or has a “manifest relationship” to the employment in question.<sup>23</sup>

The Supreme Court elaborated in *Albemarle Paper Co. v. Moody* a three-step process for proving disparate impact cases.<sup>24</sup> First, a plaintiff must prove that the employment practice in question had an adverse impact on members of a protected class.<sup>25</sup> Second, the employer has the burden of proving the business necessity or job-relatedness of the employment practice.<sup>26</sup> Third, suppose the employer is able to meet its burden of proving its practice is job-related. In that case, the plaintiff may show that an alternative employment practice, without a similarly undesirable discriminatory effect, would also serve the employer’s legitimate interest in “efficient and trustworthy workmanship.”<sup>27</sup>

### B. Plaintiffs’ Fruitless Search for LDAs

Once the Supreme Court specified the burden-shifting standard to disparate impact claims, lower courts faced a series of cases in which plaintiffs proposed an LDA, which the employer refused to adopt. We discuss these cases at some length to illustrate why seemingly nothing plaintiffs could propose could pass muster in the eyes of the courts.

In *Gillespie v. Wisconsin*, unsuccessful minority applicants for the position of Personnel Specialist I or Personnel Manager I with the State of Wisconsin alleged a disparate impact resulting from the state’s written employment test.<sup>28</sup> The test’s design sought to test the applicants’ abilities to use standard English and to analyze and organize

19. *Id.* at 431.

20. *Id.* at 430–31.

21. *Griggs*, 401 U.S. at 431.

22. *Id.*

23. *Id.* at 432.

24. *See* *Albemarle Paper Co. v. Moody*, 422 U.S. 405, 425 (1975).

25. *See id.*

26. *See id.*

27. *See id.* The phrase “efficient and trustworthy workmanship” comes from the EEOC Guidelines on Employee Selection Procedures. 29 C.F.R. § 1607.3(B). The Supreme Court gives “great deference” to the EEOC Guidelines. *Griggs*, 401 U.S. at 433–34.

28. *Gillespie v. Wisconsin*, 771 F.2d 1035, 1037 (7th Cir. 1985).

information.<sup>29</sup> The test consisted of three questions, which asked applicants to write a sample job description, a memorandum to another department, and an evaluation of statistical data.<sup>30</sup> The plaintiffs contended that the state could have used an essay examination that required shorter answers to more questions, a multiple choice examination, or a commercially developed test.<sup>31</sup> However, the court held that a plaintiff could not make “bare assertion[s]” about the possibility of alternatives, especially without supporting data.<sup>32</sup> Thus, with statistical support, a plaintiff must demonstrate more than the simple possibility that an alternative exists.

In *Contreras v. City of Los Angeles*, Hispanic auditors argued that oral examinations were an LDA to written examinations.<sup>33</sup> The Ninth Circuit affirmed the district court’s decision that the plaintiffs lacked sufficient supporting evidence.<sup>34</sup> The plaintiffs’ expert opined that persons with Spanish surnames tended to do better in oral interviews than in written examinations and that oral interviews *could* adequately screen applicants.<sup>35</sup> Although this sufficed to prove oral interviews were less discriminatory, the court held the plaintiffs failed to show that the interviews would satisfy the city’s merit hiring requirements—a legitimate business need.<sup>36</sup>

Another illustrative case is *Clady v. County of Los Angeles*, in which Black and Hispanic candidates for firefighter positions alleged that the county’s selection procedures caused a disparate impact.<sup>37</sup> The county previously had operated under a consent decree from 1973 to 1978, which required quotas for minorities.<sup>38</sup> Once the decree dissolved in 1979, the county evaluated candidates based on a written and physical examination.<sup>39</sup> The plaintiffs asserted the exams adversely impacted these minorities and that even if the county could prove the exams were valid, it nevertheless was liable for not using LDAs for the written and

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29. *Id.* at 1038.

30. *Id.*

31. *Id.* at 1045.

32. *Id.*

33. *Contreras v. City of Los Angeles*, 656 F.2d 1267, 1285 (9th Cir. 1981).

34. *Id.*

35. *Id.*

36. *Id.*

37. *Clady v. County of Los Angeles*, 770 F.2d 1421, 1423 (9th Cir. 1985).

38. *See id.* at 1424 (“The court entered a remedial hiring order requiring that at least 20% of all new recruits be black and 20% be Mexican-American.”).

39. *Id.* at 1424–25. The written portion measured mechanical comprehension, spatial perception, and verbal ability. *Id.* at 1424. Next came an oral interview for all applicants who passed the exam. *Id.* The county then placed those who passed that stage on a list of eligibility, and as spots opened up, the highest-ranked candidates moved on to the physical agility test. *Id.* at 1425.

physical exams.<sup>40</sup> The district court found for the county, and the plaintiff appealed.<sup>41</sup>

On appeal, the Ninth Circuit affirmed the district court's decision. It found the county's search for LDAs was "extensive" and included a survey of the examinations administered by more than 100 counties and cities throughout the state, as well as professionally developed tests.<sup>42</sup> The county then investigated if there was an LDA by using those procedures in their selections.<sup>43</sup> The plaintiffs asserted that the county should have used one of two different LDAs: the procedures specified by the consent decree or a previously used "banding" procedure.<sup>44</sup> Regarding the first alternative, the plaintiffs relied on testimony from the county fire chief that recruits hired during the quota years were "equally as competent as those hired under the [challenged] procedures."<sup>45</sup>

The Ninth Circuit found that testimony fell short of establishing an LDA because there was evidence that the new procedure adopted by the county was more cost-efficient than the one required by the consent decree, a consideration the court recognized as a "legitimate need."<sup>46</sup> Regarding the second alternative, banding, the court explained that the plaintiffs failed to present evidence that this alternative would have a less discriminatory impact when standing alone.<sup>47</sup> Consequently, the Ninth Circuit concluded that the plaintiffs failed to sustain their burden.<sup>48</sup>

*Zamlen v. City of Cleveland* also concerned firefighters—a ubiquitous group of plaintiffs.<sup>49</sup> In this case, female applicants to the entry-level firefighter position challenged the city's use of rank-ordered scores on written and physical examinations.<sup>50</sup> The physical examination required job candidates to perform anaerobic exercises, including dragging a 100-pound bag seventy feet and lifting weights overhead.<sup>51</sup> The written and physical examinations were worth fifty points for a total of 100 points,

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40. *See id.* at 1432–33.

41. *Id.* at 1423.

42. *Id.* at 1432.

43. *Id.*

44. *Clady v. County of Los Angeles*, 770 F.2d 1421, 1432 (9th Cir. 1985). "Banding" is a means of grouping a range of test scores, which, in statistical terms, lie in the same confidence interval. *Officers for Justice v. Civil Serv. Comm'n*, 979 F.2d 721, 723 (9th Cir. 1992). The practice is indicative that these scores are, for all practical purposes, the same. *See, e.g., id.* ("The 'band' is a statistically derived confidence range that is applied to the examination results. Differences between scores within the band are considered to be statistically insignificant due to measurement error inherent in scoring the examination.")

45. *Clady*, 770 F.2d at 1432.

46. *Id.*

47. *Id.*

48. *Id.* at 1434.

49. *Zamlen v. City of Cleveland*, 906 F.2d 209, 212 (6th Cir. 1990).

50. *Id.* at 211.

51. *Id.* at 213.



with additional points added for a veteran or minority status.<sup>52</sup> The female candidates argued that an LDA could test for aerobic traits, such as stamina and endurance, which women and men possessed more equally.<sup>53</sup> However, the Sixth Circuit affirmed the district court's finding that the current physical examination was valid as each event represented a firefighting task.<sup>54</sup> Although a physical examination including aerobic traits would be more effective, the court stated "the deficiencies of this examination are not of the magnitude to render it defective, and vulnerable to a Title VII challenge."<sup>55</sup> Additionally, the female candidates demanded the city implement a different scoring system.<sup>56</sup> However, the Sixth Circuit noted that:

although the use of a different scoring system might raise the rank-order of women on the eligibility list, given the fact that the woman with the highest test score still only ranked 334 on the eligibility list, and that the city only hired approximately forty firefighters each year, it is doubtful that any alternative scoring system would have had less of a disparate impact on women. The evidence suggests that, at best, an alternative scoring system would result in female applicants ranking higher on the eligibility list, but still too low to actually be hired. Since rescoring the examination is unlikely to result in higher numbers of successful female applicants, it is an insufficient reason to invalidate an otherwise lawful examination.<sup>57</sup>

In *Smith v. City of Des Moines*, a former fire captain brought a lawsuit against the city for allegedly firing him in violation of the Age Discrimination in Employment Act (ADEA) and the Americans with Disabilities Act (ADA) because he could not pass a physical fitness test required for approval to wear a self-contained breathing apparatus.<sup>58</sup> Significantly, the city had established a business necessity for its fitness test as a defense to the disparate impact ADEA claim, and the court held that the fire captain failed to show that an alternative means of assessing fitness would have a less disparate impact on older firefighters.<sup>59</sup>

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52. *Id.*

53. *Id.* at 219.

54. *Id.* at 218.

55. *Zamlen v. City of Cleveland*, 906 F.2d 209, 219 (6th Cir. 1990).

56. *Id.* ("[P]laintiffs contend that a different scoring system—one which would eliminate the addition of variable numbers of minority points, the use of the capping system and the addition of veterans' points—would have raised the rank-order of women on the eligibility [sic] list.").

57. *Id.* at 220.

58. *Smith v. City of Des Moines*, 99 F.3d 1466, 1468 (8th Cir. 1996).

59. *Id.* at 1471, 1473.

The fire captain argued on appeal that the use of spirometry and stress tests could determine which firefighters may be unfit for the job and require only those firefighters to undergo a physical exam and a “battery of tests” to determine if they are fit for duty.<sup>60</sup> The Eighth Circuit faulted the fire captain for not advancing this argument in the district court, but even if he had,

[he] had not made any showing that his proposed alternative (which is in any case rather vague) would have less of a disparate impact on older firefighters than the city’s present system does. At most, [he] has asserted that he would be able to pass his proposed battery of tests, but he has not shown the effect of his system on other firefighters. Nor has he shown that his more subjective approach would serve the city’s legitimate interest in the fitness of its firefighters as well as the current system.<sup>61</sup>

In *International Brotherhood of Electrical Workers v. Mississippi Power & Light Co.*, two unions, along with two Black members, sued their employer, alleging disparate impact based on race.<sup>62</sup> Mississippi Power & Light Company laid off the individual plaintiffs due to a general reduction in force.<sup>63</sup> At the time of the layoffs, the unions and the employer agreed that laid-off workers with a certain level of seniority could “bump” into positions held by more junior employees, assuming the senior employees could qualify for the new jobs.<sup>64</sup> The two individual plaintiffs attempted to bump into Storekeeper positions held by junior employees but first had to pass an aptitude test.<sup>65</sup> Both failed to meet the cutoff score, and the employer denied them the Storekeeper positions.<sup>66</sup>

Plaintiffs argued that the employer’s cutoff score—not the test itself—caused the disparate impact.<sup>67</sup> On appeal, the Fifth Circuit agreed with the district court’s finding that the plaintiffs succeeded in establishing a *prima facie* case of disparate impact but found that the employer adequately demonstrated that its challenged business practices were job-

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60. *Id.* at 1473.

61. *Id.* at 1473–74.

62. *Int’l Bhd. of Elec. Workers v. Miss. Power & Light Co.*, 442 F.3d 313, 316 (5th Cir. 2006).

63. *Id.* at 315.

64. *Id.*

65. *Id.*

66. *Id.*

67. *Id.* at 315–16. After an acquisition, the employer raised the cutoff score from 150 to 180 for the Storekeeper positions in 1993. *Id.* at 316. Thus, when the two individual plaintiffs attempted to bump into the Storekeeper positions, the cutoff score was 180. *Id.* The employer used a cutoff score of 150 from 1989 to 1993 for the Storekeeper positions. *Id.* Prior to 1993, the employer used a cutoff score of 178 for the Storekeeper positions. *Id.*

related and consistent with business necessity.<sup>68</sup> In relevant part, the employer demonstrated that a cutoff score of 180, rather than the 150 advocated by plaintiffs, significantly increased the likelihood that successful applicants would develop into proficient employees.<sup>69</sup> The cutoff score also pointed to “specific and sizable savings estimates related to its challenged practices.”<sup>70</sup> Moreover, the plaintiffs failed to prove the viability of their alternative employment practices to respond to the employer’s demonstrated business necessity.<sup>71</sup>

In *Lopez v. City of Lawrence*, Black and Hispanic police officers passed over for promotion to sergeant brought a Title VII action against the city, alleging that the criteria used for selecting officers for promotion, which consisted of a written exam and an education and experience rating followed by a rank-order selection, resulted in a disparate impact based on race.<sup>72</sup> After a bench trial, the district court agreed that the use of the test had a disparate impact on promotions in the city of Boston but found the test was a valid selection tool that helped the city select sergeants based on merit.<sup>73</sup> The court further held that the plaintiff failed to demonstrate an alternative selection tool that was available, that was as (or more) valid than the test utilized, and that would have resulted in the promotion of a higher percentage of Black and Hispanic officers.<sup>74</sup>

On appeal, the pivotal question was whether the evidence compelled a finding that the city refused to adopt an LDA that served its legitimate needs.<sup>75</sup> The First Circuit found that the Black and Hispanic police officers failed to adduce sufficient evidence that adding test components such as an assessment center, structured oral interviews, or performance review to the exam process would have enhanced the validity of the test while reducing the adverse impact on minorities.<sup>76</sup>

These synopses are merely illustrative of the forty to fifty cases we have found in which plaintiffs failed uniformly in their attempts to prove an LDA.

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68. *Int’l Bhd. of Elec. Workers.*, 442 F.3d at 319.

69. *Id.*

70. *Id.*

71. *Id.* While the plaintiffs’ brief did not address alternative employment practices, in oral arguments, the plaintiffs’ counsel claimed that the plaintiffs’ expert provided evidence of acceptable alternative practices “by describing a process in which [the employer] might require applicants to perform sample Storekeeper tasks.” *Id.* While the plaintiffs’ counsel also conceded that this showing was not particularly “precise,” the plaintiffs’ counsel maintained it was “sufficiently specific to meet Plaintiffs’ burden of demonstrating acceptable alternative employment practices.” *Id.* The Court disagreed. *Id.*

72. *Lopez v. City of Lawrence*, 823 F.3d 102, 107 (1st Cir. 2016).

73. *Id.* at 107.

74. *Id.*

75. *Id.* at 120.

76. *Id.* at 120.

C. *May an Employer Unilaterally Adopt an LDA, Per the Guidelines?*

29 C.F.R. § 1607.3(B) prescribes that whenever there needs to be a validity study, the employer should include an investigation of suitable alternatives as part of that study.<sup>77</sup> “If a user has made a reasonable effort to become aware of such alternative procedures and validity has been demonstrated in accord with these guidelines, the use of the test or other section procedure may continue . . . .”<sup>78</sup> Thus, part of an employer’s proof of validity encompasses a search for an LDA.

If the courts widely accept these Guidelines, employers would be permitted to adopt an LDA unilaterally, with courts presumably finding this exercise unlawful only if it failed to meet other provisions of the Guidelines or the statute. Yet, just two months before these Guidelines were published, the Supreme Court decided *Furnco Construction v. Waters*,<sup>79</sup> seeming to anticipate the Guidelines’ required search for a minimally impactful alternative. Writing for the Court, Justice Rehnquist observed:

The Court of Appeals, as we read its opinion, thought *Furnco*’s hiring procedures not only must be reasonably related to the achievement of some legitimate purpose, but also must be the method which allows the employer to consider the qualifications of the largest number of minority applicants. We think the imposition of that second requirement simply finds no support either in the nature of the prima facie case or the purpose of Title VII.<sup>80</sup>

Notwithstanding *Furnco*, some courts require or permit employers to search for LDAs.<sup>81</sup> In *Erdman v. City of Madison*, the court concluded that the fire department met its obligation to investigate “alternative selection procedures with evidence of less adverse impact . . . to determine the appropriateness of using or validating it in accord with [the Uniform] guidelines.”<sup>82</sup>

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77. Uniform Guidelines on Employee Selection Procedures, 29 C.F.R. § 1607.3(B) (1978).

78. Uniform Guidelines on Employee Selection Procedures, 41 C.F.R. § 60-3.3(B) (1978).

79. 438 U.S. 567 (1978).

80. *Id.* at 576–77. We have found no case in which a court has reconciled the contradiction between *Furnco* and the Guidelines, nor have we found a case in which an employer that adopted an alternative selection procedure that adversely affected a favored group (a type of reverse discrimination) relied successfully on § 1607.3B of the Guidelines.

81. See *Erdman v. City of Madison*, 615 F. Supp. 3d 889, 899 (W.D. Wis. 2022).

82. *Id.* at 897 (citation omitted).

#### D. *The Burden of Proving an LDA Prior to the 1991 Civil Rights Act*

Before *Watson v. Worth Bank and Trust*<sup>83</sup> and *Wards Cove Packing Co. v. Atonio*,<sup>84</sup> the two Supreme Court decisions partially motivating the 1991 amendments to Title VII, lower courts regarded proof of the LDA as the plaintiff's burden.<sup>85</sup> From there, courts seem to bifurcate the plaintiff's burden into two distinct prongs: (1) that the proposed LDA "would be of substantially equal validity" and (2) such LDA "would be less discriminatory" than the challenged employment practice.<sup>86</sup> After that, the plaintiff must show that the defendant refused to adopt the LDA.<sup>87</sup>

*Watson v. Fort Worth Bank and Trust*<sup>88</sup> foreshadowed a change. In this case, a Black woman applied for four different supervisory positions and was turned down, only to see a White person take the job each time.<sup>89</sup> The question confronting the Supreme Court was whether the disparate impact theory could challenge subjective employment practices or whether it was limited to objective criteria such as written and physical tests or height and weight requirements.<sup>90</sup> Justice O'Connor wrote the plurality opinion and discussed the rationale for finding that subjective employment practices were amenable to disparate impact analysis.<sup>91</sup>

On the one hand, there was concern that by excluding subjective decisions from Title VII's reach, the Court would encourage employers to substitute subjective criteria having similar discriminatory effects for prohibited objective criteria.<sup>92</sup> On the other hand, there was concern that by including subjective criteria, the Court would force employers to

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83. 487 U.S. 977 (1988).

84. 490 U.S. 642 (1989).

85. See *Albemarle Paper Co. v. Moody*, 422 U.S. 405, 425 (1975) ("If an employer does then meet the burden of proving that its tests are job related, it remains open to the complaining party to show that other tests or selection devices, without a similarly undesirable racial effect, would also serve the employer's legitimate interest in efficient and trustworthy workmanship.").

86. E.g., *Allen v. City of Chicago*, 351 F.3d 306, 312 (7th Cir. 2003) ("[T]he only remaining issue in the burden-shifting analysis is the existence of a substantially equally valid, less discriminatory alternative employment practice.").

87. *Adams v. City of Chicago*, 469 F.3d 609, 613 (7th Cir. 2006). Here, the court rephrased the statute's use of "refuses" to "refuse[d]." *Id.* at 615. This change suggests that the court made a logical leap of faith that Congress intended a one-time demonstration of an LDA by the plaintiff and its subsequent refusal to adopt it by the employer. This, however, presupposes that Congress so intended. It is equally likely that Congress meant to impose a continual burden to employ the *least* discriminatory alternative. Furthermore, it glosses over the possibility that Congress intended what it enacted and that an employer may refuse to adopt an LDA all the way up to a judgment.

88. 487 U.S. 977 (1988) (plurality opinion).

89. *Id.* at 982.

90. *Id.* at 989.

91. *Id.* at 989–90.

92. *Id.* at 989.

institute informal quotas, contrary to Congress' intent.<sup>93</sup> Notably, the plurality determined that a disparate impact claim could challenge subjective criteria.<sup>94</sup> They also sought to shift the evidentiary burden concerning the "job relatedness" defense.<sup>95</sup>

The plurality thought it "imperative to explain in detail why the evidentiary standards that apply in these cases should serve as adequate safeguards" against quotas, seemingly recognizing a potential for abuse.<sup>96</sup> It also reformulated the *Albemarle* analysis by placing the "ultimate burden" of proving discrimination on the plaintiff "at all times."<sup>97</sup>

*Watson* departed from established Court precedent in three ways.<sup>98</sup> First, the plurality changed the employer's burden for rebutting the plaintiff's *prima facie* case.<sup>99</sup> Justice Blackmun refused to join the plurality because, in his view, the second step of the process required that the employer carry a burden of *proof*, not just one of *production*, citing *Albemarle*.<sup>100</sup> In Justice Blackmun's view, disparate treatment cases need a scheme of burden allocation that "progressively . . . sharpen[s] the inquiry into the elusive factual question of intentional discrimination,"<sup>101</sup> and thus, a plaintiff's proof of a *prima facie* case results in a *presumption* that intentional discrimination took place.<sup>102</sup> It would be unfair to require employers to *prove* that there was no intent, especially when inferences

93. *Watson v. Fort Worth Bank and Tr.*, 487 U.S. 977, 993 (1988) (plurality opinion) (stating that Congress, through 42 U.S.C. § 2000e-2(j), did not intend for Title VII to lead to preferential treatment or quotas).

94. *Id.* at 990.

95. *Id.*

96. *Id.* at 993.

97. *Id.* at 997. The exact wording Justice O'Connor used is: "the burden of proving that discrimination against a protected group has been caused by a specific employment practice remains with the plaintiff at all times." *Id.* As Justice Blackmun explained in his concurrence, Justice O'Connor imports the disparate treatment analysis nearly verbatim into the disparate impact analysis. *See id.* at 1001-02 (Blackmun, J., concurring in part) ("in the context of an individual disparate-treatment claim, [the] ultimate burden of persuading the trier of fact that the defendant intentionally discriminated against the plaintiff remains at all times with the plaintiff.") (quoting *Tex. Dep't of Cmty. Affs. v. Burdine*, 450 U.S. 248, 252-56 (1981)).

98. In fact, Justice Blackmun argued that O'Connor's formulation of the *Albemarle* analysis was "flatly contradicted" by the Court's previous disparate impact cases. *Id.* at 1001.

99. *See Watson*, 487 U.S. at 986 (plurality opinion) ("[T]he employer in turn may rebut it simply by producing some evidence that it had legitimate, nondiscriminatory reasons for the decision.").

100. *Id.* at 1001 (1988) (Blackmun, J., concurring in part); *see also Albemarle Paper Co. v. Moody*, 422 U.S. 405, 422-25 (1975) (noting that the employer must "meet the burden of proving that its tests are 'job related'"); *Dothard v. Rawlinson*, 433 U.S. 321, 329 (noting that the employer must prove that the challenged requirements are "job related").

101. *Watson*, 487 U.S. at 1003 (Blackmun, J., concurring in part).

102. *Id.* at 1004.

are needed to determine intent. Therefore, in his view, it is inappropriate to require employers to produce evidence to rebut the plaintiff's case.

In contrast, disparate impact cases are proven directly with statistical evidence.<sup>103</sup> Once the plaintiff does so, it is fair to require an employer to *prove* the challenged practice has a “manifest relationship to the employment in question”<sup>104</sup> because the plaintiff uses direct evidence instead of inferences found in disparate treatment cases.

Second, the plurality weakened the standard of proof necessary to justify a challenged employment practice. While the Court's cases since *Griggs* generally have required an employer to prove a challenged practice was “necessary to safe and efficient job performance,”<sup>105</sup> the *Watson* plurality only asked for “evidence that . . . employment practices are based on legitimate business reasons.”<sup>106</sup> Again, the plurality borrowed from disparate treatment cases, requiring an employer accused of intentional discrimination to only “offer[] *any* legitimate, nondiscriminatory justification.”<sup>107</sup> This case law also departed from the Court's precedent, which required more than an “indirect or minimal relationship to job performance.”<sup>108</sup> Third, the plurality expanded the analysis of LDAs to consider whether it “would be equally as effective” in serving the employer's legitimate business goals.<sup>109</sup>

A year later, the Court again addressed the disparate impact theory in *Wards Cove Packing Co. v. Atonio*<sup>110</sup> and largely adopted Justice O'Connor's plurality opinion in *Watson*.<sup>111</sup> The majority reiterated that the burden of proof at all times rested with the plaintiff,<sup>112</sup> and the employer's burden was only to show that a challenged practice “serves, in a significant way, the legitimate employment goals of the employer.”<sup>113</sup> The majority clarified the standard and cautioned that the challenged practice was not required to be “essential” or “indispensable” to the employer's business.<sup>114</sup> Furthermore, the majority confirmed that the employer's burden was one of production and not proof.<sup>115</sup>

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103. *Id.*

104. *Connecticut v. Teal*, 457 U.S. 440, 446 (1982).

105. *Dothard*, 433 U.S. at 332 n.14,

106. *Watson v. Fort Worth Bank and Tr.*, 487 U.S. 977, 988 (1988) (plurality opinion).

107. *Id.* at 1004 (Blackmun, J., concurring).

108. *Id.* at 1005.

109. *Id.*

110. 490 U.S. 642 (1989).

111. *See id.* at 655–56 (holding that plaintiffs did not establish a prima facie case under the framework established in *Watson*).

112. *Id.* at 660. The majority not only cited *Watson* for this proposition but added emphasis to the words “at all times.” *Id.* at 659.

113. *Id.* at 659.

114. *Id.*

115. *Id.* at 660. To add further insult to injury, the majority acknowledged that “some of [their] earlier decisions can be read suggesting otherwise.” *Id.*

## II. THE LDA SUBSEQUENT TO THE 1991 CIVIL RIGHTS ACT

The effort to legislatively overrule *Wards Cove* began just two weeks after the Court handed down its decision.<sup>116</sup> Congress later incorporated an initial version of the bill into the ill-fated Civil Rights Act of 1990, a bill introduced by Senator Edward Kennedy.<sup>117</sup> Most of the debate centered on the employer's burden to establish a business reason for a challenged practice; however, President George H.W. Bush vetoed the 1990 Act.<sup>118</sup>

Proponents of the Act regrouped, and Representative Jack Brooks introduced the Civil Rights Act of 1991 in the House of Representatives in January of that year.<sup>119</sup> After eight months of wrangling, Senator John Danforth introduced a compromise bill in the Senate,<sup>120</sup> which ultimately was enacted. § 105 of the Act amended § 703 of the Civil Rights Act of 1964 by adding a new subsection, which is codified as 42 U.S.C. § 2000e-2(k)(1)(A), and has two subsections allocating burdens of proof:

- (i) a complaining party demonstrates that a respondent uses a particular employment practice that causes a disparate impact on the basis of race, color, religion, sex, or national origin and the respondent fails to demonstrate that the challenged practice is job related for the position in question and consistent with business necessity; or

116. Senator Metzenbaum introduced the Fair Employment Reinstatement Act with the intent to overrule *Wards Cove* and “reinstat[e] the well-settled system of proving unlawful employment practices in disparate impact cases under Title VII of the Civil Rights Act of 1964.” Fair Employment Reinstatement Act, S. 1261, 101st Cong. (1989); 135 CONG. REC. S7512-13 (daily ed. Jan. 3, 1989). Metzenbaum’s proposed legislation was the most aggressive version of what later became 42 U.S.C. § 2000-e. It had only two real steps. First the plaintiff had to “demonstrate,” defined as carrying the burden of production and persuasion, a disparate impact. S. 1261 § 2. Next, the employer had an opportunity to “demonstrate” that a challenged practice was “required by business necessity.” *Id.* “Required by business necessity” was defined as “essential to effective job performance.” *Id.* If either party failed to carry their burdens, they lost. Notably absent from Metzenbaum’s legislation was any mention of LDAs.

117. 136 CONG. REC. S1018 (1990) (Sen. Kennedy remarked that “Senator Howard Metzenbaum, has previously introduced S. 1261, a measure to overrule the *Wards Cove* decision, which has been substantially incorporated into the Civil Rights Act of 1990 . . .”). The 1990 Act nearly mirrors Sen. Metzenbaum’s language. *See* 136 CONG. REC. S1019 (daily ed. Jan. 23, 1990).

118. 136 CONG. REC. S16,457 (daily ed. Oct. 2, 1990). President Bush argued that the 1990 bill “employ[ed] a maze of highly legalistic language to introduce the destructive force of quotas into our Nation’s employment system.” *Id.*

119. H.R. 1, 102d Cong. (1991). January 1991 was the first time the concept of LDAs came up in proposed legislation. *See id.* § 4 (holding employment practices unlawful, despite the employer’s demonstration of business necessity, if the plaintiff demonstrated that a different employment practice with less disparate impact served the employer as well).

120. Civil Rights Act of 1991, Pub. L. No. 102-166, 105 Stat. 1071 (codified in scattered sections of 42 U.S.C.).



(ii) the complaining party makes the demonstration described in subsection (C) with respect to an alternative employment practice and the respondent refuses to adopt such alternative employment practice.<sup>121</sup>

Subsection (C) explains that “[t]he demonstration referred to by subparagraph (A)(ii) shall be in accordance with the law as it existed on June 4, 1989, with respect to the concept of ‘alternative employment practice.’”<sup>122</sup> Because the *Wards Cove* opinion is dated June 5, 1989, it is apparent that Congress intended to override that decision with legislation regarding what constitutes an LDA and how to prove it.

§ 105(b) provides that the Interpretive Memorandum authored by Senator Danforth is the exclusive legislative history for purposes of “construing or applying any provision of this Act that relates to . . . alternative business practice.”<sup>123</sup> Danforth’s Interpretive Memorandum reads: “[t]he terms ‘business necessity’ and ‘job related’ are intended to reflect the concepts enunciated by the Supreme Court in *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971), and in the other Supreme Court decisions prior to *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989).”<sup>124</sup> Most courts dealing with LDAs after the 1991 Civil Rights Act regard the statute as a codification of *Albemarle* and a repudiation of *Wards Cove*.<sup>125</sup>

Nevertheless, in ensuing cases, plaintiffs extended their losing streak at proving an LDA. In *Chicago Teachers Union v. Board of Education of Chicago*, a class of Black plaintiffs challenged the process by which the Chicago school district determined layoffs.<sup>126</sup> The school district claimed to have based its decisions on neutral student enrollment projections.<sup>127</sup> The plaintiffs contended the school district could have adopted other less discriminatory criteria instead of student enrollment projections.<sup>128</sup> These alternatives included, either separately or in combination, “(1) transferring class members to open positions; (2) conducting an adverse impact analysis preceding the layoffs; (3) avoiding the use of enrollment projections to determine layoffs; or (4) using other sources of funding instead of laying off employees.”<sup>129</sup>

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121. 42 U.S.C. § 2000e-2(k)(1)(A)(i)–(ii).

122. *Id.* § 2000e-2(k)(1)(c).

123. Civil Rights Act of 1991, Pub. L. No. 102-166, § 105(b), 105 Stat. 1071, 1074.

124. 137 CONG. REC. S15276 (daily ed. Oct. 25, 1991).

125. See P.S. Runkel, *The Civil Rights Act of 1991: A Continuation of the Wards Cove Standard of Business Necessity Standard of Business Necessity*, 35 WM. & MARY L. REV. 1177 (1993) (reviewing the legislative history of the Civil Rights Act of 1991).

126. *Chi. Tchrs. Union v. Bd. of Educ. of Chi.*, 14 F.4th 650, 653 (7th Cir. 2021).

127. *Id.*

128. *Id.* at 656.

129. *Id.* at 655.

Regarding the transfer alternative, the Seventh Circuit found “without more evidence as to how the Board could have simply overridden the existing system, CTU [Chicago Teachers Union] has failed to carry its burden of demonstrating a ‘viable’ alternative that the Board refused to adopt.”<sup>130</sup> The plaintiffs fared as poorly with their remaining alternatives, as the court’s opinion states:

But for each proposed alternative, CTU falls far short of providing the sort of detail necessary to meet its burden of establishing an alternative to the Board’s system: it fails to spell out what factors other than enrollment should have been used; fails to explain precisely how the Board could have accessed “other sources” of funding or how that funding would have allowed it to keep teaching positions open in schools with declining enrollments; and fails to identify how conducting an adverse impact study would obviate the need to base layoffs on declining enrollment.<sup>131</sup>

Thus, the district court correctly concluded that CTU did not carry its burden of establishing an equally valid LDA the Board could have used in lieu of layoffs based on enrollment numbers.<sup>132</sup>

In *Erdman v. City of Madison*, a district court rejected an LDA proposed by a class of female applicants for firefighter positions in the city of Madison, Wisconsin.<sup>133</sup> Although crediting their proof that an alternative method, a Candidate Physical Abilities Test (CPAT), may be less discriminatory than the challenged procedure, a physical abilities test (PAT), the court found the alternative would be more burdensome in several respects, including:

(1) the need to perform a transferability study; (2) the PAT having been a good predictor of outcome historically, as defined by a high passage rate out of the academy; (3) the Department’s comparatively high percentage of female firefighters, leading to a possible inference that the CPAT may have a favorable disparate impact on women but results in the washing out of ultimately unsuccessful applicants after the additional expenditure of time and money at the academy phase; and (4) certain elements of the PAT were designed specifically for Madison, in light of characteristics of the city, the Department’s equipment or other considerations, including safety. Given plaintiff bears the burden to prove the CPAT would serve the Madison Fire Department’s

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130. *Id.* at 656.

131. *Id.* at 657.

132. *Chicago Tchrs. Union v. Bd. of Educ. of the City of Chicago*, 14 F.4th 650, 657 (7th Cir. 2021).

133. *Erdman v. City of Madison*, 615 F. Supp. 3d 889, 891 (W.D. Wis. 2022).

legitimate needs, when coupled with the Seventh Circuit's admonition that "courts are generally less competent than employers to restructure business practices, and unless mandated to do so by Congress they should not attempt it," . . . the court concludes that plaintiff has not demonstrated by a preponderance of the evidence that the CPAT meets the Department's legitimate needs as an alternative to the 2014 PAT.<sup>134</sup>

Thus, notwithstanding the codification of the disparate impact theory, plaintiffs continue to find the LDA unavailing as a rebuttal to an employer's proof of validity.<sup>135</sup> In addition, employers are constrained by other provisions of Title VII in their efforts to increase the representation and responsibilities of women and minorities in the workplace. Among the most impactful is 42 U.S.C. § 2000e-2(j), titled "Preferential treatment not to be granted on account of existing number or percentage imbalance," which provides:

Nothing contained in this title [42 U.S.C. §§ 2000e et seq.] shall be interpreted to require any employer, employment agency, labor organization, or joint labor-management committee subject to this title [42 U.S.C. §§ 2000e et seq.] to grant preferential treatment to any individual or to any group because of the race, color, religion, sex, or national origin of such individual or group on account of an imbalance which may exist with respect to the total number or percentage of persons of any race, color, religion, sex, or national origin employed by an employer, referred or classified for employment by any employment agency or labor organization, admitted to membership or classified by any labor organization, or admitted to, or employed in, any apprenticeship or other training program, in comparison with the total number or percentage of persons of such race, color, religion, sex, or national origin in any community, State, section, or other area, or in the available work force in any community, State, section, or other area.<sup>136</sup>

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134. *Id.* at 899–900.

135. Plaintiffs have been more successful in proposing alternative selection criteria as a *remedy* subsequent to a finding of past discrimination. *See Officers for Justice v. Civil Serv. Comm'n*, 979 F.2d 721 (9th Cir. 1992). In *Officers for Justice*, the plaintiffs proposed "banding" test scores rather than distinguishing among applicants whose scores differed by merely a point. *Id.* at 723–24. The court found this plan lawful as a type of voluntary affirmative action plan designed to remedy prior discrimination. *Id.* at 727; *see also Sims v. Montgomery Cnty. Comm'n*, 890 F. Supp. 1520, 1523 (M.D. Ala. 1995), *aff'd sub nom.*, *Sims v. Montgomery Cty. Comm'n*, 119 F.3d 9 (11th Cir. 1997).

136. 42 U.S.C. § 2000e-2(j).

This prohibition, by its terms, applies only to what employers may be required to do, not what employers might do voluntarily, an issue to which we shall return.

Regarding the use of tests selected to improve demographic balance, 42 U.S.C. § 2000e-2(1) provides:

It shall be an unlawful employment practice for a respondent, in connection with the selection or referral of applicants or candidates for employment or promotion, to adjust the scores of, use different cutoff scores for, or otherwise alter the results of, employment related tests on the basis of race, color, religion, sex, or national origin.<sup>137</sup>

This practice is referred to as “race norming,” a concept illustrated in a case decided by the Seventh Circuit. Fearing exposure to a lawsuit alleging disparate impact, the Chicago Fire Department created separate promotional lists for White and Black firefighters to ensure that a representative number of Black firefighters would receive promotions.<sup>138</sup> The Seventh Circuit found this practice violated § 2000e-2(1), as the court’s opinion notes:

The Civil Rights Act of 1991 explicitly forbids the dual-list response to disparate impact. (That section also forbids differential validation, under which scores predicting an equal probability of success on the job lead to an equal probability of favorable decision even though this may mean that minorities are promoted with scores lower than those of white applicants.)<sup>139</sup>

The remainder of this Article explains how AI can assist employers in navigating these cross currents, steering a course between permissible efforts to enhance minority representation and the prohibitions against favoring one protected demographic group at the expense of another. We begin by providing a brief overview of how AI works—at least that facet of AI concerned with “predictive analytics”—and address whether and how employers may search for and adopt an LDA.<sup>140</sup>

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137. *Id.* § 2000e-2(1).

138. *See* Biondo v. City of Chicago, 382 F.3d 680, 682–83 (7th Cir. 2004) (discussing the Department’s establishment of promotional lists to conform with the EEOC’s Uniform Guidelines on Employee Selection Procedures).

139. *Id.* at 684.

140. In this respect, our article is focused somewhat differently than Professor Bent’s discussion of AI in his article titled, *Is Algorithmic Affirmative Action Legal*. Jason R. Bent, *Is Algorithmic Affirmative Action Legal?*, 108 GEO. L.J. 8 (2020). Professor Bent’s excellent article is concerned primarily with bias and validation issues accompanying the use of AI in employee selection. *See id.*; *see also* David M. Skanderson, *Managing Discrimination Risk of Machine*

### III. WHAT IS ARTIFICIAL INTELLIGENCE?

#### A. *Artificial Intelligence Defined*

“Artificial intelligence,” or AI, is ubiquitous in common parlance and has assumed a variety of meanings as it continues to permeate popular culture and transform the workplace. Working definitions for AI or automated and computerized decision systems have developed in specific contexts. Still, for purposes of this Article, it is best to focus on the facet of AI dealing with “predictive analytics.” To lend concreteness, we are concerned with methods designed to select the “best” employees among a pool of possible candidates. A selection procedure will be deemed more or less discriminatory depending on the representation of women and minorities among those deemed “best” relative to their representation in a pool of minimally qualified candidates.<sup>141</sup> The procedures by which AI discerns who is best qualified are correlative. The goal is to identify employee characteristics, called “features,” most highly correlated with an employer’s criteria for success.

Three primary sources of data may be input as features into an AI selection algorithm. The first is information supplied by the employee and the employer.<sup>142</sup> This information may come from an employment application or resume, such as educational attainment, training, experience, etc., or an employer’s job description. Second, an employer may develop its own data regarding applicants for the algorithm. For example, an applicant may need to take a test, participate in an interview, either with a human or a machine, or participate in a gamified assessment constructed by the developer of the AI product. Data from these exercises may then be incorporated as features that maximize the algorithm’s correlation with various success criteria.

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*Learning and AI Models*, 35 ABA J. LAB. & EMP. LAW 339, 340 (2021) (discussing considerations in managing the risk posed by predictive models to discriminate, and how risk management concepts developed in the financial sector may be applied to managing discrimination risk in other sectors); Jenny R. Yang, *Adapting Our Anti-Discrimination Laws to Protect Workers’ Rights in the Age of Algorithmic Employments Assessments and Evolving Workplace Technology*, 35 ABA J. LAB. & EMP. LAW 207, 210 (2021) (discussing, in relevant part, how to ensure fairness in the use of algorithmic hiring, how algorithmic management and surveillance have impacted workers’ civil rights, and how technology can serve as a catalyst for workers ability to organize for more equity)..

141. By “best” we refer to the group of applicants the algorithm deems best-suited for employment. In the paradigm case, the algorithm arrives at this determination by determining the attributes that distinguish “successful” from “less successful” employees, with the success criterion or criteria determined by what is most meaningful to a particular employer. This could be an employee’s attendance record, tenure, or accuracy in performing particular tasks.

142. This information also should be available from applicants but, as explained, if information is unavailable from incumbents, it is unlikely to be of use in the algorithm.

Third, the employer may scrape data on each employee applicant from the internet.<sup>143</sup> Depending on a candidate's electronic footprint, AI developers may be able to glean information from an applicant's postings, on social media or professional websites, and a variety of other sources an applicant encounters while going about their daily lives. The scope of these searches may be prescribed in advance, a type of AI known as "supervised learning," or may be open-ended, meaning the algorithm is free to search for those features most highly correlated with success, which is known as "unsupervised learning."<sup>144</sup>

These features next must be related to the criteria deemed to indicate a "successful" hire. Once again, an employer may specify job-related criteria, such as long tenure, rapid promotions, minimal disciplinary events (supervised learning), or identify a group of successful and unsuccessful employees and permit the algorithm to search for criteria (which may or may not be related to the job) that distinguish the members of each group (unsupervised learning).

In most applications, the search for the algorithm that serves as the best predictor of successful job performance begins with "seed" data, also known as "training" data.<sup>145</sup> An artificial intelligence algorithm optimized to predict the "best" qualified candidates within a pool of candidates, would naturally be trained on data in that context: information regarding present and past employees, so an initial calibration of the model can be estimated with data on hand.<sup>146</sup> No information exists regarding the performance of those yet to be hired. Based on this initial model, the predictive power of the artificial intelligence algorithm may subsequently be improved by including the track record compiled by incumbent employees in subsequent iterations.<sup>147</sup> This iterative process

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143. Typically, this same generic information must be available for a sample of incumbent employees, because it is their data that generally is necessary to "train" the algorithm.

144. Julianna Delua, *Supervised v. Unsupervised Learning: What's the Difference*, IBM (Mar. 12, 2021), <https://www.ibm.com/cloud/blog/supervised-vs-unsupervised-learning> [<https://perma.cc/3V38-FL54>].

145. See Matthew Scherer, *AI in HR: Civil Rights Implications of Employers' Use of Artificial Intelligence and Big Data*, 13 SCITECH L. 12, 14 (2017) (discussing "seed sets" and how this data demonstrates the rise and increasing sophistication of machine learning); see also GERALD E. ROSEN ET AL., FEDERAL EMPLOYMENT LITIGATION, CHAPTER 4-A. AMERICANS WITH DISABILITIES ACT (ADA) [4:929.2] (2023) (providing key pointers regarding the data used to train an artificial intelligence algorithm used for employment purposes.); *In Quest To Reduce Bias In Hiring, AI May Help and Hurt*, 31 NO. 7 CAL. EMP. L. LETTER 6 (2021) (noting that that "Any AI tool can only be as good—and as impartial" as the training data its provided).

146. See Scherer, *supra* note 145, at 13 (describing the techniques and information programmed into artificial intelligence); see also Daryl Lim, *AI & IP: Innovation & Creativity in an Age of Accelerated Change*, 52 AKRON L. REV. 813, 821 (2018) (explaining the foundational process by which predictive artificial intelligence works).

147. See generally Lim, *supra* note 146, at 821–22 (describing how machine learning algorithms operate).

generally is referred to as “machine learning.”<sup>148</sup> The expectation is that successive iterations will converge on an algorithm that yields maximum predictive accuracy.<sup>149</sup>

### B. *Constrained Maximization*

Algorithms aid in numerous situations, such as when AI decides whether to reject or extend offers to applicants. Another example where algorithms aid is to confront issues such as when AI decides whether a shipment of goods will sell more quickly in Store A or B. But the difference between the examples is that job applicants have rights that must be respected by the algorithm. For example, it would be unacceptable if an algorithm relied on an applicant’s race or gender to determine a candidate’s chances of success or failure on the job. As a result, the developer must exclude certain features from finding their way into the algorithm, regardless of their predictive accuracy. These considerations naturally “constrain” the features the model may include, and the model, therefore, is charged with maximizing its accuracy subject to excluding those features.

However, there is general agreement that “debiasing” an algorithm merely by omitting protected characteristics is ineffective in wringing bias from the system.<sup>150</sup> The problem is the algorithm is adept at finding correlates of these traits. For example, eliminating race as a potential feature could result in attendance at a historically Black college capturing the same demographic.<sup>151</sup> Analogizing the attempt to debias music auditions by having contestants perform behind a screen, one study examining this issue notes that contestants subsequently were instructed to remove their shoes before walking out onto the wood floor of the performance hall.<sup>152</sup> Judges were too perceptive to be debiased by a mere screen.

As these simple examples illustrate, debiasing an algorithm by rejecting features, both protected characteristics *and their correlates*, may not be feasible. But as the list of features may be constrained, the output or selections similarly may be constrained. For example, if an algorithm designed to select a baseball team existed, the developer would

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148. *See generally id*; Harry Surden, *Machine Learning and the Law*, 89 WASH. L. REV. 87 (2014) (discussing the concepts underlying machine learning and its impact on the practice of law).

149. *See generally* Lim, *supra* note 146, at 821–22.

150. *In Quest To Reduce Bias In Hiring, AI May Help and Hurt*, *supra* note 145 (discussing “AI at its worst” and how bias can infuse artificial intelligence algorithms, pointing to an example of an AI recruiting tool that, purportedly neutral to gender biases, still found a way of “rejecting more women that it should have.”)

151. *See* BRIAN CHRISTIAN, *THE ALIGNMENT PROBLEM: MACHINE LEARNING AND HUMAN VALUES* 38–50 (2020).

152. *Id.* at 39.

want to constrain the output so that it identifies a group capable of playing each of the various positions on the team. Given the focus of this Article, one type of constraint is paramount: *What if the algorithm were constrained to identify female candidates at a rate no less than their representation among the incumbent workforce?* In other words, in assessing all possible algorithms, the computer could only consider those that selected this minimum percentage of females. Said otherwise, algorithms could be identified as “most accurate” only if, in addition to its accuracy, it represents an LDA to previous methods.<sup>153</sup> In effect, this constraint does not result in “unbiased” selections but only those less “biased” than those produced by previous selection procedures.

It is important to note that this proposed method differs from a quota. Unlike a quota, it does not mandate a minimum percentage of women, for example, among those selected. Rather, this minimum constraint is limited to the development (or estimation) process and does not require that when applied to any group of applicants, the same minimum percentage of women will be selected. Begging the reader’s indulgence for another analogy, this equates to a golfer who seeks to perfect her swing by trying alternatives and then honing the one that results in hitting the longest ball. This method, of course, does not guarantee that this swing will be equally effective in every round of golf. The constrained algorithm, therefore, is a means of selecting among alternative *methods*, not outcomes.

But the expectation is that the algorithm selected by this method will be an LDA relative to the prevailing selection procedure. By design, algorithms that produce lower selection rates are not considered, and there is no ceiling on the ultimate representation of women among those selected. Further, there is no assurance the algorithm will find an LDA. That is, if the current complement of female employees is thirty percent, perhaps no algorithm will yield at least this percentage when estimated on seed and subsequent data, subject to the requirement that the algorithm is a significant predictor of success. But worst case, the employer will have exhausted the search for an LDA and may be reasonably sure none exists.

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153. An important qualification is that there is no assurance.



#### IV. CAN AN EMPLOYER UNILATERALLY ADOPT AN LDA?

##### A. *The Guidelines Require Employers to Consider LDAs*

The Guidelines describe the employer's obligation to employ an LDA as follows:

##### Consideration Of Suitable Alternative Selection Procedures.

Where two or more selection procedures are available which serve the user's legitimate interest in efficient and trustworthy workmanship, and which are substantially equally valid for a given purpose, the user should use the procedure which has been demonstrated to have the lesser adverse impact. Accordingly, whenever a validity study is called for by these guidelines, the user should include, as a part of the validity study, an investigation of suitable alternative selection procedures and suitable alternative methods of using the selection procedure which have as little adverse impact as possible, to determine the appropriateness of using or validating them in accord with these guidelines.

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Whenever the user is shown an alternative selection procedure with evidence of less adverse impact and substantial evidence of validity for the same job in similar circumstances, the user should investigate it to determine the appropriateness of using or validating it in accord with these guidelines.<sup>154</sup>

Title VII provides that an employer who fails to adopt an LDA that equally serves the employer's legitimate interests is liable to the plaintiff.<sup>155</sup> One of the remedies includes an injunction mandating the employer to adopt the LDA.<sup>156</sup> Yet, notwithstanding the Guidelines' requirement that employers search among LDAs, the Supreme Court has recognized the employer's pursuit of an LDA as a defense in only a narrow class of justified cases—when it may be a “voluntarily affirmative action plan,” adopted as a remedial measure.<sup>157</sup> The paradoxical result is that an employer is obligated to adopt an LDA when proposed by the plaintiff but legitimately may fear liability for “reverse discrimination” were it to adopt unilaterally the very same selection procedure. Because constrained AI exists to sort among alternative methods according to

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154. Uniform Guidelines on Employee Selection Procedures, 29 C.F.R. § 1607.3B (1978).

155. *Allen v. City of Chicago*, 351 F.3d 306, 312 (7th Cir. 2003).

156. *Robinson v. Metro-North Commuter R.R.*, 267 F.3d 147, 161 (2d Cir. 2001).

157. *United Steelworkers v. Weber*, 443 U.S. 193, 206 (1979); *Johnson v. Transp. Agency*, 480 U.S. 616, 639 (1987).

prescribed criteria, it is essential to understand the objectives Title VII condones and prohibits.

### B. *Ricci v. DeStefano and the Employer's LDA*

The only case concerning an employer's unilateral pursuit of an LDA to come before the Supreme Court since the Civil Rights Act of 1991 was *Ricci v. DeStefano*.<sup>158</sup> *Ricci* concerned the city of New Haven's decision to disregard the results of a selection exam used to promote firefighters.<sup>159</sup> Because few Black firefighters were among those who scored highest, the city was concerned it might be liable for disparate impact discrimination against the Black firefighters whose low scores made them ineligible.<sup>160</sup> As a result, the city refused to certify any of the test results, believing that, with more time, it ultimately would find an LDA.<sup>161</sup> The city was encouraged in that decision by outside experts who opined that such alternatives were available.<sup>162</sup> But rather than substituting an LDA prospectively, the city failed to certify the current results, depriving high-scoring white and Hispanic candidates of the promotions they otherwise would have received.<sup>163</sup> As a result, these firefighters sued the city for engaging in intentional racial discrimination, alleging that because of their race and ethnicity, they intentionally were denied promotions they otherwise would have received.<sup>164</sup>

The Supreme Court found in favor of the firefighters who had their promotions effectively rescinded, explaining:

But once that process has been established and employers have made clear their selection criteria, they may not then invalidate the test results, thus upsetting an employee's legitimate expectation not to be judged on the basis of race. Doing so, absent a strong basis in evidence of an impermissible disparate impact, amounts to the sort of racial preference that Congress has disclaimed, § 2000e-2(j) and is

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158. 557 U.S. 557 (2009).

159. *Id.* at 574.

160. *Id.* at 587.

161. *Id.* at 563. Note that no firefighter was subject to a test that allegedly was less discriminatory. Although the city proposed alternatives, the Court found the evidence regarding the validity of these tests and their less-discriminatory impact to be largely speculative. *Id.* at 589–92.

162. *See id.* at 570–71 (explaining alternatives given by a psychologist who spoke with the New Haven Civil Service Board).

163. *See id.* at 592 (“Fear of litigation alone cannot justify an employer’s reliance on race to the detriment of individuals who passed the examinations and qualified for promotions. The City’s discarding the test results was impermissible under Title VII.”).

164. *Ricci v. DeStefano*, 557 U.S. 557, 562–63 (2009).

antithetical to the notion of a workplace where individuals are guaranteed equal opportunity regardless of race.<sup>165</sup>

Although the Court recognized that fear of disparate impact liability was a legitimate concern, it made clear that a numerical disparity, standing alone, was not a strong basis in evidence that justified that fear.<sup>166</sup> In effect, proof of a racial disparity was just one element of a disparate impact claim, and the city could avoid potential liability by demonstrating that the challenged selection procedure was job-related and consistent with business necessity. Because the city could not prove this defense would be unavailing by adducing a solid basis in evidence to that effect, it was impermissible for the city to engage in race-conscious actions. The Court stated, “[t]he City rejected the test results solely because the higher-scoring candidates were white. The question is not whether that conduct was discriminatory but whether the City had a lawful justification for its race-based action.”<sup>167</sup>

When the challenged practice is a formal test, courts have required employers to prove the test is “valid,” as that term is generally used by industrial organization psychologists and described in the Guidelines.<sup>168</sup> In *Ricci*, the city used a professionally developed test and could have relied on the assurances from the evidence provided by the test developer regarding the test’s validity.<sup>169</sup> Instead, the city credited the contrary and disparaging statements of an expert who was a business rival of the test developer and more general concerns expressed by an academician regarding tests of this type.<sup>170</sup> These experts advised that the city should consider disregarding the written test in favor of an “Assessment Center,”

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165. *Id.* at 585. The Supreme Court failed to characterize the quantum of proof corresponding to a “strong basis in evidence;” however, that issue was addressed by lower courts. The Second Circuit elaborated its views on the standard of proof, stating:

[W]e hold that, under *Ricci*, a “strong basis in evidence” of non-job-relatedness or of a less discriminatory alternative requires more than speculation, more than a few scattered statements in the record, and more than a mere fear of litigation, but less than the preponderance of the evidence that would be necessary for actual liability. This is what it means when courts say that the employer must have an objectively reasonable fear of disparate-impact liability.

United States v. Brennan, 650 F.3d 65, 72 (2d Cir. 2011).

166. *Ricci*, 557 U.S. at 592.

167. *Id.* at 580. However, Justice Ginsburg’s dissenting opinion, questions whether the city’s actions are correctly described as discriminatory. *Id.* at 625 (Ginsburg, J., dissenting) (“A reasonable endeavor to comply with the law and to ensure that qualified candidates of all races have a fair opportunity to compete is simply not what Congress meant to interdict.”).

168. Uniform Guidelines on Employee Selection Procedures, 29 C.F.R. §§ 1607.5, 1607.14.

169. *See Ricci*, 557 U.S. at 564 (“[T]he City hired Industrial/Organizational Solutions, Inc. (IOS) to develop and administer the examinations.”).

170. *Ricci v. DeStefano*, 557 U.S. 557, 570–72 (2009).

which grades candidates on how they react to events that simulate actual scenarios firefighters are likely to confront.<sup>171</sup> However, these experts suggested deploying this alternative prospectively and did not advocate disregarding the results of the current test. In any event, the Court found this testimony failed to provide a strong basis in evidence of the test's invalidity.<sup>172</sup>

Among the lessons from *Ricci* is that liability for disparate impact discrimination does not turn solely on the adverse impact associated with a selection procedure.<sup>173</sup> There are additional elements to the claim that also must have a strong basis in evidence to justify an employer's fear of liability. *Ricci* concerns the second element—whether an employer is likely to falter in proof that the selection procedure is valid.<sup>174</sup> But an employer also is liable if it fails to adopt an LDA of which it learns.<sup>175</sup> Identifying these viable alternatives is critical in the domain of AI.

An LDA developed algorithmically would derive from a process that differs dramatically from the facts of *Ricci*. Rather than relying on intuition, or common knowledge, as the Court described the less-than-scientific evidence adduced by the city,<sup>176</sup> AI can evaluate specific alternative criteria (supervised learning) and those no one has yet

171. *Id.* at 570–71.

172. *Id.* at 592. Although not particularly pertinent to our argument, it should be noted that the city may have fared better had it acted solely with regard to prospective exams., as noted by the Court:

Title VII does not prohibit an employer from considering, before administering a test or practice, how to design that test or practice in order to provide a fair opportunity for all individuals, regardless of their race. And when, during the test-design stage, an employer invites comments to ensure the test is fair, that process can provide a common ground for open discussions toward that end. We hold only that, under Title VII, before an employer can engage in intentional discrimination for the asserted purpose of avoiding or remedying an unintentional disparate impact, the employer must have a strong basis in evidence to believe it will be subject to disparate-impact liability if it fails to take the race-conscious, discriminatory action.

*Id.* at 585.

173. *See id.* (“[B]efore an employer can engage in intentional discrimination for the asserted purpose of avoiding or remedying an unintentional disparate impact, the employer must have a strong basis in evidence to believe it will be subject to disparate-impact liability if it fails to take the race-conscious, discriminatory action.”).

174. *See id.* at 589–91 (detailing why Respondents lacked a strong basis in evidence of an equally valid, less-discriminatory testing alternative that the City would have necessarily refused to adopt).

175. *See id.* at 578 (“[A] plaintiff may still succeed by showing that the employer refuses to adopt an available alternative employment practice that has less disparate impact and serves the employer’s legitimate needs.”).

176. *See Ricci*, 557 U.S. at 585 (finding no support that the employer had an objective, strong basis in evidence to find the tests inadequate).

suggested (unsupervised learning) and determine whether any is an LDA relative to the current method. Just as the city attempted in *Ricci*, an employer steeped in AI could engage in its own search for an LDA and assess whether failing to adopt this alternative would expose it to liability. Nothing in Title VII prohibits an employer from acting preemptively to defeat a disparate impact claim premised on an LDA, so long as there is a strong basis in evidence that the LDA exists.

An AI solution avoids the pitfalls identified by the *Ricci* majority. First, the LDA is developed based on seed data and other available information before the administration of the exam.<sup>177</sup> As such, no *ex-post* modification of an exam or questioning of its results is contemplated. Second, although exam administrators could develop the test with the intention of selecting *no less* than the same proportion of minorities and women who are currently employed, the proportions that actually pass the test are unconstrained and may, in fact, be below historical levels. Third, no individual is identified as a potential promotee before selecting the optimal LDA. As a result, no applicant can legitimately rely on the prospect of promotion before the algorithm decides the most accurate method of predicting success on the job, subject to the constraint that it must be an LDA.

Further, requiring an employer to wait and see if a plaintiff will come forward with its own LDA makes no sense. Just as it behooves an employer to assess for itself whether its selection procedure adversely impacts any demographic group, it also is sensible for an employer to act unilaterally in determining whether there is an LDA that might provide a trump card to a plaintiff who challenges the current selection procedure, despite its validity.

Not only must the algorithm identify a selection procedure yielding at least the same proportion of a particular demographic group as among incumbent employees, but this same algorithm must also do so with a degree of accuracy regarding predicted performance that is substantially equal to the current method. This requirement imposes an additional constraint on AI's search for an LDA. Yet, there appears to be no authority that explicates the standard by which an LDA would be "equally valid and less discriminatory."<sup>178</sup> The lack of authority is an important omission because employers are obligated to adopt only LDAs that are "substantially equal,"<sup>179</sup> yet no court has opined just how close is

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177. We acknowledge that an AI approach likely is not helpful in choosing among alternative written tests because a sample of candidates must first take each alternative. AI would be most valuable when selections exist on data already in hand, whether these are prior performance ratings or data created by employees in the course of performing their jobs or living their lives.

178. *Ricci*, 557 U.S. at 592.

179. *See id.* at 632 n.11 (Ginsburg, J., dissenting) (citation omitted) (stating that employers

close enough. In terms pertinent to *Ricci*, an employer would be justified in abandoning its current selection procedure, for fear of losing a case to an LDA, only if it found an LDA that was “substantially equal,” yet there is no guidance as to what is “substantial.”

Two measures of numerical equality are prevalent in Title VII case law. One is a purely statistical standard. For example, one could determine whether the constrained AI method’s predictive accuracy yields results within the margin of error associated with the current method. This translates to the “p-values,” or “standard deviations” commonly referenced in the case law.<sup>180</sup> If the accuracy of the LDA is within “two standard deviations” of the current selection procedure, then by this criterion, the LDA would be deemed “substantially equal.”<sup>181</sup>

However, that standard has a flaw. As sample sizes increase, other things remaining equal, the difference between alternative models deemed “substantially equal” diminishes.<sup>182</sup> Thus, two companies that differ in size by an order of magnitude could have the same difference in the accuracy of the LDA in terms of a common percentage of successes. Still, this same difference could be statistically significant in the case of the larger but not the smaller company. As a result, the larger company would lack a strong basis in evidence for adopting the LDA because the difference between the accuracy of the current method and the proposed alternative would be statistically significant.

An alternative criterion derives from the Guidelines. The Guidelines provide that government agencies generally will not investigate claims of disparate impact when the selection rate of the disfavored group is within eighty percent of the selection rate of the favored group.<sup>183</sup> Although this would permit a large employer to escape liability when the probability that the two groups receive equal treatment is negligible, it is a measure of “practical significance” and many courts have required evidence of

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have an obligation to explore and implement alternative procedures that have less adverse impact and are substantially equally valid).

180. *See, e.g.*, *Stagi v. Nat’l R.R. Passenger Corp.*, 391 F. App’x 133, 137 (3d Cir. 2010) (“There are two related concepts associated with statistical significance: measures of probability levels and standard deviation. Probability levels (also called ‘p-values’) are simply the probability that the observed disparity is random . . . . A standard deviation is a unit of measurement that allows statisticians to measure all types of disparities in common terms.”).

181. *Id.*

182. Daniel L. Rubinfeld, *Reference Guide on Multiple Regression*, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 305, 318 (3d ed., 2011).

183. Uniform Guidelines on Employee Selection Procedures, 29 C.F.R. § 1607.4(D) (“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 by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

both statistical and practical significance to find a violation of Title VII.<sup>184</sup>

Because an employer can successfully defend a claim of disparate impact if the alternative selection procedure is “valid,” as the Court instructed the city of New Haven in *Ricci*,<sup>185</sup> it is well to consider whether an AI algorithm is likely valid under the Guidelines. In important respects, AI procedures lie beyond the Guidelines, which is hardly surprising given the latter are nearly forty-five years old. The scientific discipline reflected in the Guidelines is industrial organizational psychology. Foundational to that discipline’s methodology is a careful identification of the skills, effort, and responsibility required of a particular job by means of a “job analysis.” The selection tool is developed to accurately identify candidates with those qualifications. In contrast, a job analysis is not included in most AI protocols.

Instead, AI seeks to identify *correlates* of successful job performance, whether these correlates bear a superficial relationship to what the job entails. This focus is consistent with “criterion validity” defined by the Guidelines.<sup>186</sup> Criterion validity does not rest on a job analysis but seemingly accommodates correlational methods. This method only asks whether the criterion measure is job-related but does not require proof that the *correlates* are job-related.<sup>187</sup> In principle, if left-handedness were correlated with the ability to perform a job-related mental task, “left-handedness” would pass muster in terms of criterion validity, although no one would know why the two were related.<sup>188</sup>

Although it is common to regard relationships based on understandings of causation as the gold standard and to be skeptical of merely correlative and often spurious connections, it is easy to understate the extent to which we rely on merely correlative relationships. Medicines have long been prescribed because they “work” without fully

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184. See, e.g., *Ensley Branch of N.A.A.C.P. v. Seibels*, 616 F.2d 812, 818 (5th Cir. 1980) (“[T]he court found that there is a statistically significant correlation between test scores and experimental ratings, but that the correlation is of very low magnitude and lacks practical significance.”); *Hamer v. City of Atlanta*, 872 F.2d 1521, 1525 (11th Cir. 1989).

185. See *Ricci v. DeStefano*, 557 U.S. 557, 587 (2009) (“That is because the City could be liable for disparate-impact discrimination only if . . . or if there existed an equally valid, less-discriminatory alternative that served the City’s needs but that the City refused to adopt.”).

186. Courts that have assessed the validity of a selection procedure regularly rely on the Guidelines for instruction. See, e.g., *Erdman v. City of Madison*, 615 F. Supp. 3d 889 (W.D. Wis. 2022); *Lopez v. City of Lawrence*, No. CV 07-11693-GAO, 2014 WL 12978866, at \*18 (D. Mass. Sept. 5, 2014), *aff’d sub nom.*, *Lopez v. City of Lawrence*, 823 F.3d 102 (1st Cir. 2016).

187. 29 C.F.R. § 1607.15.

188. But see Michael Selmi, *Algorithms, Discrimination and the Law*, 82 OHIO ST. L.J. 611, 641 (2021) (“In no case has the defendant defended against a disparate impact challenge by arguing that even though we cannot explain our process, we know it works, and the reason we know it works is because that is what it was designed to do.”).

understanding why and how they alleviate pain or affect a cure.<sup>189</sup> Confidence comes from repeated instances of similar and predictable results that attend their use. Why a rooster crows when the sun rises may be beyond our understanding, but that lack of knowledge might not inhibit us from accurately setting our watches according to rooster time. We regularly rely on connections we do not fully understand, guided by their predictable nature.<sup>190</sup> As it relates to AI, the issue is whether the correlations discovered by the algorithm are persistent and reliable.

For example, we previously hypothesized that computer programmers who visit certain websites seem to excel. These websites do not teach programming but rather are places programmers prefer to visit, much like their favorite bars. But like bars, these favored websites go in and out of fashion. If an algorithm continues using visits to a now unfashionable website to index the best programmers, it will soon target the wrong people. Although the feedback loop inherent in machine learning would recognize that fact and search for a more reliable index, if preferences change rapidly, the algorithm may lag behind reality and be in error systematically. This potential issue illustrates that the *persistence* of a correlation may be vital to determining the usefulness (i.e., reliability of an AI-based selection process).

One potential solution is to constrain further the criteria considered by the selection algorithm. Just as administrators can instruct an algorithm to ignore a candidate's zip code for fear it is too highly correlated with race or ethnicity, so too can the algorithm be constrained to consider features that are more likely to reflect job performance rather than the idiosyncrasies of employees. For example, administrators can instruct the algorithm to ignore data regarding recreational behavior. Although this nudges the algorithm towards factors that might emerge from a job analysis, the critical point is that algorithms and AI are not *per se* suspect because these methods can accommodate wide-ranging concerns. Instead, the evaluation of selection procedures should be addressed in

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189. Carolyn Y. Johnson, *One big myth about medicine: We know how drugs work*, WASH. POST (July 23, 2015), <https://www.washingtonpost.com/news/wonk/wp/2015/07/23/one-big-myth-about-medicine-we-know-how-drugs-work/> [<https://perma.cc/A3MQ-2K3Z>] (“Knowing why a drug works has historically trailed the treatment, sometimes by decades. Some of the most recognizable drugs -- acetaminophen for pain relief, penicillin for infections, and lithium for bipolar disorder, continue to be scientific mysteries today.”).

190. This tendency, of course, may feed into superstitious behavior. For example, an athlete may believe wearing a “lucky” pair of socks leads to exceptional performance. Although nothing about the socks directly affects performance, lengthy literature regarding placebo effects suggests the correlation nevertheless may be meaningful. See, e.g., Ted J. Kaptchuk, & Franklin G. Miller, *Placebo Effects in Medicine*, 373 N. ENGL. J. MED. 8–9 (2015); Karin Meissner et al., *Introduction to Placebo Effects in Medicine: Mechanisms and Clinical Implications*, NAT’L LIBR. OF MED. (June 27, 2011), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3130411/> [<https://perma.cc/T9Y9-63P9>].



terms of a particular objective and any unique issues that arise in pursuing that objective utilizing AI.

## V. VOLUNTARY AFFIRMATIVE ACTION PROGRAMS AND AI

In some respects, voluntary affirmative action programs lie at the opposite end of the spectrum from LDAs. In searching for an LDA, the goal is to maximize the representation of a minority group among those most qualified and selected for hiring, promotion, etc.<sup>191</sup> There is little concern that the LDA will result in the overrepresentation of minorities, regardless of how it is measured. In contrast, the overrepresentation of minorities is a primary concern in setting goals that apply to a voluntary affirmative action plan.

The Supreme Court's decision in *United Steelworkers v. Weber* permits employers to set explicit but temporary goals as part of a voluntary affirmative action program for hiring women and minorities.<sup>192</sup> The purpose of the program must be to remedy the "conspicuous imbalance" of these groups in particular jobs.<sup>193</sup> The rationale lies in the Court's reading of § 703(j) of the Civil Rights Act.<sup>194</sup> The Court focused on the statute's prohibition against *requiring* employers to eliminate racial imbalances instead of prohibiting employers from acting *voluntarily* to eliminate racial imbalance.<sup>195</sup> But even voluntary programs are severely constrained in how they pursue racial balance.

The Court set out these constraints in *Johnson v. Transportation Agency*.<sup>196</sup> Courts must consider whether (1) the program's numerical goals are justified by a manifest imbalance that (2) reflects underrepresentation in traditionally segregated jobs, and if so, (3) whether the plan unnecessarily trammels the rights of third parties or creates an

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191. *Section IV Legal Manual*, JUSTICE.GOV, <https://www.justice.gov/crt/fcs/T6Manual7> [<https://perma.cc/YWV2-76MP>] (last visited Mar. 26, 2023).

192. *United Steelworkers v. Weber*, 443 U.S. 193, 208–09 (1979). Scholars have also noted that *Ricci* may leave "ample room" for employers' voluntary compliance with Title VII. See Jason R. Bent, *Is Algorithmic Affirmative Action Legal?*, 108 GEO. L.J. 803, 832 (2020) ("The *Ricci* Court emphasized the importance of voluntary compliance as integral to Title VII's statutory scheme and clarified that its ruling left 'ample room' for employers' voluntary compliance efforts."). The author here posits that algorithmic affirmative action may be "justified" under this language found in dicta in *Ricci*. *Id.* However, while that "ample room" encompasses race-neutral methods with a race-aware goal of enhancing diversity or avoiding disparate impact, it "may not encompass voluntary efforts by an employer that include race-based methods." *Id.* at 834. The author nevertheless proceeds to posit that current Title VII affirmative action doctrine *already* "permits some uses of race-aware algorithmic fairness constraints, and that a clarification or modification to update the doctrine could justify algorithmic affirmative action more broadly." *Id.* at 834.

193. *Weber*, 443 U.S. at 209.

194. 42 U.S.C. § 2000e-2(j).

195. *Weber*, 443 U.S. at 205–06.

196. 480 U.S. 616 (1987).

absolute bar to their advancement.<sup>197</sup> In addition, the plan must exist to attain but not maintain greater representation of disadvantaged groups.<sup>198</sup>

A “manifest imbalance” is less onerous to prove than a *prima facie* statistical case of discrimination for at least two reasons. First, the comparison that establishes the imbalance need *not* be between those immediately eligible for hiring or promotion and those actually selected, as would be required for a *prima facie* case of discrimination. Instead, a comparison may exist between the incumbents and those in the labor force who possess the relevant qualifications. Although “statistical significance” is not necessary to establish a manifest imbalance, it appears sufficient.<sup>199</sup>

Second, an employer “need not point to its *own* prior discriminatory practices, nor even to evidence of an ‘arguable violation’ on its part” to establish a manifest imbalance in traditionally segregated job categories.<sup>200</sup> This second reason reflects the reality that “[a] corporation concerned with maximizing return on investment, for instance, is hardly likely to adopt a plan if in order to do so it must compile evidence that could be used to subject it to a colorable Title VII suit.”<sup>201</sup>

The “manifest imbalance” requirement and the “historically segregated jobs” requirements—the first two elements of the *Johnson* test—seem to have merged into one. For example, an Illinois district court approved a broad-brush comparison between the racial composition of flight attendants on dates 12 years apart, and in each instance, differences existed between the composition of incumbents and the general workforce.<sup>202</sup> This comparison rarely would be considered probative of discrimination in a suit alleging discriminatory hiring.<sup>203</sup>

In *Mackin v. City of Boston*, the district court compared the racial composition of the fire department in 1974 to the composition of the general population in that year and found evidence of historical segregation.<sup>204</sup> But these are quite close to the evidence establishing a manifest imbalance. As the Seventh Circuit observed:

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197. *In re Birmingham Reverse Discrimination Emp. Litig.*, 20 F.3d 1525, 1537 (11th Cir. 1994) (citing *Johnson*, 480 U.S. at 632, 637).

198. *Johnson*, 480 U.S. at 639.

199. *See id.* at 633 n.11 (“Of course, when there is sufficient evidence to meet the more stringent ‘*prima facie*’ standard, be it statistical, nonstatistical, or a combination of the two, the employer is free to adopt an affirmative action plan.”).

200. *Id.* at 630 (emphasis added).

201. *Id.* at 633.

202. *Dix v. United Air Lines, Inc.*, No. 99 C 2597, 2000 WL 1230463, at \*2–\*4 (N.D. Ill. Aug. 28, 2000).

203. *See, e.g., Tagatz v. Marquette Univ.*, 861 F.2d 1040, 1045 (7th Cir. 1988) (holding that failure to control for other explanatory variables makes an expert’s table “essentially worthless”).

204. *Mackin v. City of Boston*, No. CIV. A. 89-2025-S, 1991 WL 349619 (D. Mass. June 21, 1991), *aff’d*, 969 F.2d 1273 (1st Cir. 1992), *opinion corrected* (July 20, 1992).

the Supreme Court considered the degree to which statistical proof reflecting an underrepresentation of women in traditionally segregated jobs could justify an affirmative action plan. Specifically, the Supreme Court held that an employer need only show a “manifest imbalance” in order to adopt a voluntary affirmative action plan under Title VII. The Court noted further that the “imbalance need not be such that it would support a prima facie case against the employer [under Title VII].”<sup>205</sup>

Thus, proof of a “manifest imbalance” also may suffice to identify a “traditionally segregated job.”<sup>206</sup>

An affirmative action plan avoids trammeling the rights of third parties when the remedial measures are temporary: intended to attain but not maintain a balanced workforce, and its goals regarding highly-skilled positions reflect the necessary qualifications. For if a plan fails to take differing qualifications into account in employment decisions, “it would dictate mere blind hiring by the numbers, for it would hold supervisors to ‘achievement of a particular percentage of minority employment or membership . . . regardless of circumstances such as economic conditions or the number of available qualified minority applicants.’”<sup>207</sup> More specifically, courts consider three questions in determining whether a plan “unnecessarily trammels” the interests of the majority group:

- (1) Does it require their discharge and their replacement with new hires in the protected groups?
- (2) Does the plan create an absolute bar to their employment?
- (3) Is the plan a temporary measure designed to achieve balanced employment or is it intended to *maintain* a balanced workforce?<sup>208</sup>

Applying those principles, the *Johnson* court approved the voluntary plan at issue and summarized its reasons:

The Agency in the case before us has undertaken such a voluntary effort, and has done so in full recognition of both the difficulties and the potential for intrusion on males and nonminorities. The Agency has identified a conspicuous

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205. *Shidaker v. Tisch*, 833 F.2d 627, 630 (7th Cir. 1986) (citing *Johnson v. Transp. Agency*, 480 U.S. 616, 631 (1987)).

206. *Johnson*, 480 U.S. at 620.

207. *Id.* at 636 (quoting *Sheet Metal Workers v. EEOC*, 478 U.S. 421, 495 (1986)).

208. *See United Steelworkers v. Weber*, 443 U.S. 193, 208 (1979) (holding that the plan in question did not unnecessarily trammel the rights of white employees for these three reasons).

imbalance in job categories traditionally segregated by race and sex. It has made clear from the outset, however, that employment decisions may not be justified solely by reference to this imbalance, but must rest on a multitude of practical, realistic factors. It has therefore committed itself to annual adjustment of goals so as to provide a reasonable guide for actual hiring and promotion decisions. The Agency earmarks no positions for anyone; sex is but one of several factors that may be taken into account in evaluating qualified applicants for a position. As both the Plan's language and its manner of operation attest, the Agency has no intention of establishing a work force whose permanent composition is dictated by rigid numerical standards.<sup>209</sup>

But as the dissenters in *Weber* cautioned, permissible goals often are indistinguishable from impermissible quotas.<sup>210</sup> For example, the Eleventh Circuit found that what an affirmative action plan described as a goal had in practice become a quota: “[h]ere, by contrast, the annual appointment ‘goals’ have been applied as rigid quotas. In the early 1980s, the city mechanically appointed equal numbers of Blacks and whites to fire department positions without any consideration of relative qualifications in order to meet the stated fifty-percent ‘goal.’”<sup>211</sup> Whether a goal is a quota may differ in the eyes of the beholder. Thus, in *Local 28 of Sheet Metal Workers’ International Association v. EEOC*, Justice O’Connor unhesitatingly labeled as a quota what the plurality characterized as a goal.<sup>212</sup>

Using AI, an employer can assure the court that its selections are not quotas and will not morph into quotas, intentionally or not. The constraints embedded in an algorithm are *ex-ante*—exist before the actual selections are determined. Accordingly, the minimum representation of disfavored groups—the goal of the affirmative action plan—is specified in the *development* of the algorithm and is not used to adjust selections *post hoc*.

## CONCLUSION

As interpreted by the Supreme Court, Title VII recognizes two instances in which employers may engage in minority-conscious

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209. *Johnson*, 480 U.S. at 640–41.

210. *Weber*, 443 U.S. at 254–55 (discussing the difficulty the Court’s holding will have on distinguishing what is permissible and impermissible under Title VII).

211. *Ensley Branch, NAACP v. Seibels*, 31 F.3d 1548, 1576 (11th Cir. 1994); *see also* *Middleton v. City of Flint*, 92 F.3d 396, 411 (6th Cir. 1996), *cert. denied*, 520 U.S. 1196 (1997) (examining a racial quota system that mandated fifty percent of police officers needed to be in specified minority groups).

212. *Local 28 of Sheet Metal Workers’ Int’l Ass’n v. EEOC*, 478 U.S. 421, 489 (1986). Note, as well, the distinctions she draws between a “goal” and a “quota.” *See generally id.*

decision-making. The first derives from *Ricci v. DeStefano*. It permits employers to engage in intentional acts that otherwise would be judged discriminatory when there is a strong basis in evidence that had it failed to do so, it would be liable for disparate impact discrimination. The *Ricci* decision turned on the finding that the city of New Haven lacked a strong basis in evidence that its promotional exam was invalid. Therefore, it was impermissible to engage in intentional discrimination to avoid what would have been an insubstantial claim of disparate impact discrimination. Although the Court further considered the merits of alternative selection procedures, nothing suggested the plaintiffs proffered a viable alternative that the city should have adopted.

This Article suggests that an employer should not have to await a proposal from a plaintiff to learn whether an LDA exists. The Guidelines and various lower court decisions support this preemptive search. Upon identifying an LDA, an employer would have a strong basis in evidence that it could be liable under Title VII should it refuse to adopt it. AI provides a mechanism that should prove effective in searching for an LDA that satisfies the employer's legitimate needs.

We also considered the Supreme Court's parameters on voluntary affirmative action plans under Title VII. AI may be well-suited to this purpose because it can potentially identify a selection procedure that intrudes most lightly on the legitimate expectations of favored groups and does not establish quotas or require the alternative selection procedure to persist once there is parity.

Yet, AI is not a panacea. There is no guarantee that AI will identify an LDA in all circumstances—no equally efficient selection procedure may exist. However, if there is such a method, then AI may be the best means to find it.

