

4-1-2011

## Employment Discrimination: Some Economic Definitions, Critique and Legal Implications

Menahem Pasternak

Follow this and additional works at: <https://archives.law.nccu.edu/nclcr>

 Part of the [Civil Rights and Discrimination Commons](#), and the [Labor and Employment Law Commons](#)

---

### Recommended Citation

Pasternak, Menahem (2011) "Employment Discrimination: Some Economic Definitions, Critique and Legal Implications," *North Carolina Central Law Review*: Vol. 33 : No. 2 , Article 4.  
Available at: <https://archives.law.nccu.edu/nclcr/vol33/iss2/4>

This Article is brought to you for free and open access by History and Scholarship Digital Archives. It has been accepted for inclusion in North Carolina Central Law Review by an authorized editor of History and Scholarship Digital Archives. For more information, please contact [jbeeker@nccu.edu](mailto:jbeeker@nccu.edu).

## EMPLOYMENT DISCRIMINATION: SOME ECONOMIC DEFINITIONS, CRITIQUE AND LEGAL IMPLICATIONS

MENAHEM PASTERNAK\*

### ABSTRACT

The main economic definition of “employment discrimination” implies that it is efficient and leads to unusual and narrow empirical methods. From a legal perspective one can note that this definition does not advance equality. Other such definitions relate discrimination to specific market failures. This paper argues that economic theory could base its definition on the fundamental theorem of welfare economics and market functionality. Since society constitutes markets by use of law, this definition indicates some additional legal means to address problems of discrimination.

### I. INTRODUCTION

Gary Becker defined employment discrimination as different pay for equally productive individuals (based upon membership in a certain group).<sup>1</sup> Becker’s definition cited the cause for unequal pay as discriminatory tastes.<sup>2</sup> Others argued that there may be another cause at times: some information problems that are correlated with the said social groups.<sup>3</sup>

These prevailing definitions have some drawbacks. They treat “productivity” explicitly and force econometricians to study particular production functions.<sup>4</sup> They fail to explain long-run market discrimination,<sup>5</sup> and tend to draw our attention away from the existence of discrimination against people who are not equally productive. Also, in Becker’s explanation, “discriminatory tastes,” implies that discrimination is efficient, which tends to inhibit economic and legal

---

\* LL.B, LL.M. Member of the Israeli Bar since 1997. Editor in Chief of a compendium of Israeli labor law and collective agreements. I would like to thank Professor Shlomo Yitzhaki for initiating this study.

1. GARY S. BECKER, *THE ECONOMICS OF DISCRIMINATION* 14 (Milton Friedman ed., 2nd ed. 1971).

2. *Id.*

3. *See infra* Section 2.

4. For the unusual econometric treatment of production functions and empiricism, see *infra* Sections 2-3.

5. *See* Kenneth J. Arrow, *What Has Economics to Say About Racial Discrimination?*, 12 J. ECON. PERSP., Spring 1998, at 91, 94-95.

remedies for discrimination.<sup>6</sup> This last explanation and its result are peculiar because when we usually encounter wages that differ from marginal product (e.g. when the equally productive receive different wages) we deduce inefficiency, not efficiency.

This paper proposes an additional definition for discrimination: “employment market failures that are correlated with membership in specific social groups,” or “correlated market failures (CMFs).” Section four presents and explains this additional definition and a variation to it is suggested (constraining employers’ utility functions to profit-maximization). This complementary definition indicates that discrimination exists when market rules and economic efficiency do not fully function for specific groups, meaning the rules of the game are biased.

The CMF definition complements current definitions, since it can identify short and medium-term discrimination between people who are not equally productive and who work in different occupations or even in different industries. The concept of “productivity” will become just one method of identifying discrimination and all efficiency related methods will become applicable to the study of discrimination and to its legal treatment. The CMF definition provides theoretical support for some empirical studies and suggests additional studies for future academic research and social awareness, hopefully broadening the field. The definition also implies a remedy when discrimination is detected: fixing the correlated market failure (subject to one exception). Such fixing is achieved by use of legal rules and institutions, like antitrust law and law enforcement.

The prevailing definitions leave the normative question of defining the social groups that may be subject to discrimination (i.e. groups defined by sex, race and age, but not height, attractiveness or baldness) to other interested parties, such as legislators, politicians, courts, other academics, idealists or any other person who feels he may be subject to discrimination. This paper does the same.

The structure of the paper is as follows: section two reviews current economic definitions of employment discrimination and methods of measuring it; section three discusses theoretical problems including the existence of long-run discrimination under competition and the relationship between discriminatory utility functions and efficiency;

---

6. See generally Richard S. Toikka, *The Welfare Implications of Becker's Discrimination Coefficient*, 13 J. ECON. THEORY 472, 472 (1976); see specifically Glen G. Cain, *The Economic Analysis of Labor Market Discrimination: A Survey*, in 1 HANDBOOK OF LABOR ECONOMICS 693, 774 (Orley Ashenfelter & Richard Layard eds., 1986) [hereinafter Cain, 1986] (discussing economic efficiency and the effect of discrimination).

and section four presents the complementary definition proposed by this paper and its legal application.

## II. REVIEW OF RELEVANT ECONOMIC METHODS AND DEFINITIONS

As aforementioned, Becker defined employment discrimination as different pay for equally productive individuals due to membership in a certain group.<sup>7</sup> Following suit, most empirical work on employment discrimination studies correlations between “productivity characteristics” (like education and experience), wages (or other measures of employment-related utility) and social categories like sex and race.<sup>8</sup> Becker’s definition seems influenced in part by a classic concept of discrimination, which claims that those with equal merits should be treated equally,<sup>9</sup> and in part by legal definitions of social categories that may be cause for discrimination, like “sex” and “race.”<sup>10</sup>

Measuring “productivity characteristics,” “detailed measures of individual and job characteristics,” “skill levels,” “firm-specific studies,” “workplace technologies”<sup>11</sup> and “individual ability and performance”<sup>12</sup> is an unusual method detailing the human side of production functions. These characteristics are not self-evident. Production functions vary between – and even within – industries and occupations. Econometric studies face the difficulties of identifying all production-related characteristics, in order to measure discrimination and not group-related differences in employment preferences or productivity.<sup>13</sup> Additionally, one must identify which production-related characteristics should not be controlled for because they are caused by discrimination.<sup>14</sup>

Going back to the definition issue, one can distinguish between past or extra-market discrimination and current intra-market discrimination. Comparing wages without controlling for productivity may pro-

7. BECKER, *supra* note 1.

8. *See generally*, Cain, 1986, *supra* note 6. Other measures of employment-related utility include non-pecuniary compensation, job security, job characteristics, etc. The word “wages” is used here as a shorthand for the utility of employees according to the labor market.

9. ARISTOTLE, THE NICOMACHEAN ETHICS 84-86 (Lesley Brown ed., David Ross trans., 2009), available at <http://classics.mit.edu/Aristotle/nicomachaen.5.v.html>.

10. *E.g.*, ILO Discrimination (Employment and Occupation) Convention, No. 111, Jun. 25, 1958, 362 U.N.T.S. 31, available at <http://www.ilo.org/ilolex/cgi-lex/pdconv.pl?host=status01&textbase=iloeng&document=112&chapter=1&query=%23status%3D01&highlight=on&querytype=bool&context=0> (last visited Mar. 9, 2011).

11. *See* Joseph G. Altonji & Rebecca M. Blank, *Race and Gender in the Labor Market*, in 3C HANDBOOK OF LABOR ECONOMICS 3143, 3169, 3185-87, 3214, 3249-51 (Orley Ashenfelter & David Card eds., 1999).

12. Lawrence M. Kahn, *Discrimination in Professional Sports: A Survey of the Literature*, 44 INDUS. & LAB. REL. REV. 395, 395 (1991).

13. *See* Altonji & Blank, *supra* note 11, at 3165.

14. *See* Cain, 1986, *supra* note 6, at 696-97.

duce results that evidence extra-market or past discrimination that affects current intra-market tendencies and abilities (under the assumption that innate abilities and preferences are equally distributed among members of all groups), while controlling for all relevant productivity measures will enable evaluating current market discrimination.<sup>15</sup> This dichotomy, which is otherwise very useful, diverts our attention from the possibility that short and medium-run discrimination exists between people with different productivity levels, a matter that is debated here.

There are several other kinds of theoretical and empirical studies. One type of study, which is significantly related to this paper, claims that some market failures may lead to discrimination by themselves, while some other such failures may do so when combined with discriminatory tastes. This type of study includes theories of statistical discrimination, that show how information problems that correlate to social groups can lead to discriminatory results.<sup>16</sup> It also includes theories of product market power (i.e. weak competition) and discrimination, which show how extra-competitive profits may allow firms to forgo some monetary profits for indulging in discriminatory tastes.<sup>17</sup> This type of study includes theories of discrimination by workers' unions<sup>18</sup> and job-mobility discrimination as well.<sup>19</sup> Studies that blame information problems are modifying, implicitly, Becker's definition. The modification is related to the bifurcation of the non-economic "prejudice" concept. Becker focused on the emotional side of the matter, while the others focused on pre-judgment (uniformed decision-making).

A second kind of study measures discrimination based on the proportion of women in a firm's workforce and not necessarily from direct comparisons between productivity and wages.<sup>20</sup>

A third kind of study examines the correlation between the probability of being hired and membership in a group subject to dis-

---

15. *Id.*

16. Arrow, *supra* note 5, at 96-97.; *see also* Altonji & Blank, *supra* note 11, at 3180-91 (discussing in detail the theory of statistical discrimination).

17. *See* Cain, 1986, *supra* note 6, at 717-22, 731-32, 774-75; *see also* Orley Ashenfelter & Timothy Hannan, *Sex Discrimination and Product Market Competition: The Case of the Banking Industry*, 101 Q. J. ECON. 149, 152-56 (1986); *see also* Judith K. Hellerstein et al., *Market Forces and Sex Discrimination*, 37 J. HUM. RESOURCES 353 (2002). For a critique of research that includes theories of product market power, *see* Cain, 1986, *supra* note 6, at 731-35, 739-43. This work stresses the difference between a monopolist in a product market and a monopolist in the employment market, and the shortcomings of empirical proofs. *See id.*, *supra* note 6, at 717-19.

18. *See* Cain, 1986, *supra* note 6, at 719-20.

19. *See* Altonji & Blank, *supra* note 11, at 3207-20.

20. *See, e.g.*, Ashenfelter & Hannan, *supra* note 17, at 149-73; Hellerstein et al., *supra* note 17.

crimination.<sup>21</sup> This method turns innocent interview invitations and interviews into controlled experiments on discrimination, using fake resumes and actors.<sup>22</sup> These studies use identical resumes – with different personal details – to represent equally predicted productivity.<sup>23</sup> Somewhat similarly, the effects of anti-discriminatory methods on hiring decisions (auditioning musicians behind a screen to hide their gender), can provide indications of past discrimination.<sup>24</sup> These methods help verify the existence of discrimination in the hiring stage, but do not measure discrimination in general.<sup>25</sup> Some of these studies do not require econometricians to understand the details of production functions.

A fourth kind, which seems to be the most uncommon, addresses inefficiency due to discrimination.<sup>26</sup> This seems to be the inverse of this paper's proposed definition, which considers inefficiency to be a partial indication of discrimination.

Some theorists claim that “group discrimination” exists only if members of a group receive wages that differ from the group's expected productivity.<sup>27</sup> As they note, and as cited by many others under their definition, “statistical discrimination” may not be “discrimination” at all.<sup>28</sup>

All of these definitions are also accepted and analyzed by the interdisciplinary law-and-economics literature.<sup>29</sup>

### III. MARKET THEORY, EFFICIENCY, TASTES AND EXTERNALITIES: SOME AMBIVALENCE

Market theory predicts that in the long run and under competition, there will be no employment discrimination.<sup>30</sup> This is implied by assuming that real world markets resemble significantly theoretical mar-

21. See, e.g., Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination*, 94 AM. ECON. REV., Sept. 2004, at 991; Altonji & Blank, *supra* note 11; David Neumark et al., *Sex Discrimination in Restaurant Hiring: An Audit Study*, 111 Q. J. ECON. 915 (1996).

22. See, e.g., Bertrand & Mullainathan, *supra* note 21, at 994.

23. *Id.* at 991-92; Altonji & Blank, *supra* note 11, at 3191-95; Neumark et al., *supra* note 21, at 917.

24. Claudia Goldin & Cecilia Rouse, *Orchestrating Impartiality: The Impact of “Blind” Auditions on Female Musicians*, 90 AM. ECON. REV., Sept. 2000, at 715, 715-16.

25. See Altonji & Blank, *supra* note 11, at 3192.

26. See, e.g., Richard Anker, *Theories of Occupational Segregation by Sex: An Overview*, 136 INT'L. LAB. REV. 315 (1997); Glen G. Cain, *Welfare Economics of Policies Toward Women*, 3 J. LAB. ECON. 375 (1985).

27. Dennis J. Aigner & Glen G. Cain, *Statistical Theories of Discrimination in Labor Markets*, 30 IND. & LAB. REL. REV. 175, 177-78 (1977).

28. *Id.* at 175-76.

29. See John J. Donohue III, *Antidiscrimination Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1387, 1388, 1396-1414 (Mitchell Polinsky & Steven Shavell eds., 2007).

30. Arrow, *supra* note 5.

## 168 NORTH CAROLINA CENTRAL LAW REVIEW [Vol. 33:163]

kets with complete information, profit maximizing firms, competition, and no externalities<sup>31</sup> (including the absence of discriminatory tastes by customers). Under such assumptions, wages in theoretical markets will equal marginal productivity<sup>32</sup> and approach it in real markets, and there will be no discrimination. Accepting this might have led us to the reactionary conclusion that there is no discrimination. Since we live under competitive markets and because employers know best their employees' merits, unequal pay would imply unequal merit.<sup>33</sup> Despite this and competition, discrimination does exist in the long run.<sup>34</sup> As reality contradicts this theory, it should be modified.<sup>35</sup>

One such modification involves introducing externalities, or more specifically, discriminatory tastes.<sup>36</sup> "Discriminatory tastes" occur when the utility, presence, actions or wages of members of a specific social group (the discrimination subjects) are introduced into the utility or production functions of individual consumers or employers of other groups (the discriminators). Such externalities may be positive ("nepotism") or negative ("discrimination").<sup>37</sup> This is a common modification with a paradoxical result.

It is common because most empirical studies of discrimination deduce "discriminatory tastes" from observed correlations between group membership and unequal pay for equal productivity.<sup>38</sup> The paradox is that this very same deduction implies that the observed markets are "efficient." This is because discriminatory sentiments by employers, co-workers or customers register only as qualities in utility and production functions. If all the inequality observed is due to such

---

31. *See id.*

32. *See* Daniel S. Hamermesh, *The Demand for Labor in the Long Run*, in 1 HANDBOOK OF LABOR ECONOMICS 429, 431 (Orley Ashenfelter & Richard Layard eds., 1986).

33. *See* VICTOR R. FUCHS, *WOMEN'S QUEST FOR ECONOMIC EQUALITY* 53-57 (1988). For an argument that suggests that employers do not know best their employees' merits, see Cain, *supra* note 6, at 769 ("There is no basis for assuming that the employer pays according to 'true productivity' . . . . On the contrary, we should expect that the systematic basis on which employers pay their workers is a basis of observable variables." In Cain's paper, "observable variables" are experience, professional diplomas, training, and the like.)

34. *See generally*, Altonji & Blank, *supra* note 11; *see also* Shelly Lundberg & Richard Startz, *On the Persistence of Racial Inequality*, 16 J. LAB. ECON. 292 (1998).

35. *See* William A. Darity, Jr. & Rhonda M. Williams, *Peddlers Forever?: Culture, Competition, and Discrimination*, 75 AM. ECON. REV., May 1985, at 256, 256-57; *see also* Anker, *supra* note 26.

36. *See* James M. Buchanan & Wm. Craig Stubblebine, *Externality*, 29 *ECONOMICA*, N.S., 371 (1962) (defining and discussing externalities in general); *see also* BECKER, *supra* note 1, at 14-15 (discussing discriminatory tastes).

37. BECKER, *supra* note 1, at 14-15.

38. Cain, 1986, *supra* note 6, at 698 ("Market outcomes become indirect measures of tastes and the focus of attention. Direct measures, such as those obtained from attitudinal surveys, which are a staple in sociology and psychology, are seldom used in economics."); *see also* Altonji & Blank, *supra* note 11.

tastes, then the markets are “efficient” and perform properly.<sup>39</sup> Such conclusions may inhibit efforts to find an economic solution to the problem of discrimination. After all, “efficiency” is the ultimate goal – it is the “optimum” that calls for the end of intervention.<sup>40</sup>

To better understand the argument of the previous paragraph, we should note that “externalities” may or may not be negotiated through the market.<sup>41</sup> In the previous paragraph we assume that the externalities were negotiated through the market – that discriminatory tastes led to discriminatory prices (wages). If the markets were to have failed, meaning that the discriminatory tastes had not affected wages, then the result would be equality. Note that from a moral perspective, a market that efficiently facilitates taste discrimination is inferior to a market that fails to do so. The paradox is now apparent. Under Becker’s definition, efficiency implies discrimination while market failure implies equality and theory finds itself in a moral conflict with any legislator who seeks to forbid discrimination.

From a normative perspective, and under Becker’s definition, discriminatory tastes justify discrimination. From a positivistic perspective, this deduction of discriminatory tastes and efficient discrimination is questionable. An alternative deduction of information problems – or any other market failure – would have led to the conclusion of imperfect competition and an “inefficiency” that calls for a correction. More questions are raised regarding Becker’s deduction by the unusual attention given to specific “tastes.”<sup>42</sup> In this sense, this paper’s proposed definition will be more economically conservative than the prevailing one by not seeking to identify “tastes.” Moreover, the hasty conclusion that discrimination is a quality of utility functions (“tastes”), which are usually unobserved (but only deduced), is suspect. As noted before, it may lead to the suspicion that “discriminatory tastes” fall frequently under Occam’s razor.<sup>43</sup>

Up until this point, we have considered one modification of market theory (the externalities of taste discrimination). Another implicit modification involves turning towards empiricism. This method is embodied by the search for “productivity characteristics” and production functions.<sup>44</sup> This method seeks to measure productivity and discrimination directly, avoiding the theoretical question altogether.<sup>45</sup> This

39. See generally Toikka, *supra* note 6, at 476; see specifically Cain, 1986, *supra* note 6, at 774.

40. See Donohue, *supra* note 29.

41. See Buchanan & Stubblebine, *supra* note 36, at 383.

42. See Cain, 1986, *supra* note 6, at 697-98.

43. See Arrow, *supra* note 5.

44. See *supra* Section 2.

45. For a different treatment of the case in which productivity is unobserved by the economist, see Cain, 1986, *supra* note 6, at 768-69, on “reverse regression.”

leads to more narrow definitions and the unusual methods discussed in this paper – namely, the unusually explicit treatment of production functions. Perhaps as a result, there are a relatively small number of empirical research projects on discrimination-related inefficiency. After all, empiricism is a weak means of creating predictions.

Other modifications of the theory examine long-run market failures.<sup>46</sup> This paper takes an intermediate position. It looks for discrimination whenever long-run predictions do not hold – whenever there is inefficiency.

#### IV. A “CORRELATED MARKET FAILURE” (CMF) DEFINITION OF DISCRIMINATION

Taking a microeconomic approach, one can define some occurrences of employment discrimination as employment market failures correlated with membership in specific social groups (the choice of social groups is left to legislators and others; a variation on this definition will be considered later on). This definition looks for instances when suboptimal employment markets benefit or harm members of specific social groups, and it complements current definitions.

The first half of this abstract definition is about efficiency. If this were the only issue, one would find market failures (and inefficiency) that are not necessarily discrimination-related. Therefore, the second half of the definition is necessary to indicate correlation with said social groups subject to discrimination. Market failures (and inefficiency) that lack such correlations are a general problem, and do not indicate discrimination. Market failures that do correlate, such as extra-competitive wages that reach only members of a privileged group and excess burdens (like unemployment) that afflict mostly minorities, are discriminatory.

The proposed definition seems to be a general case of the current prevailing one, which states that discrimination exists whenever people with equal productivity receive different wages in correlation with membership in a social group.<sup>47</sup> This seems to be a specific market failure. This would be a failure even if such wage differences are rational from the perspective of employers, and due to a market failure like information problems, the market is in an inefficient state. The lack of information in itself is a deviation from perfect competition and thus indicates inefficiency. In such a case, marginal productivity cannot equal wages for both groups at once. Even if it differs for both groups, the difference in wages from marginal productivity will not be

---

46. See Altonji & Blank, *supra* note 11, at 3168, 3171, 3177.

47. See *supra* Section 2.

identical (because otherwise wages would be equal), and this means there will be a difference in uncompetitive profit levels. In any case, this violates the optimum conditions for competitive profit-maximizing firms.<sup>48</sup> Assuming the discrimination was caused by “information problems,” (putting aside, for a moment, the “discriminatory tastes” issue) this situation of different wages for equal productivity indicates a market failure correlated with membership in a social group, and thus falls under this paper’s new CMF definition as well.<sup>49</sup> This implies that the prevailing definition narrows our understanding of discrimination by subjecting it to one method of identifying inefficiency (the productivity-wage relationship), drawing our attention away from discrimination observable through other methods.

The new CMF definition allows for identifying cases of discrimination that the prevailing one misses. This definition can compare employees with different productivity levels because it can compare the difference between marginal productivity and wages (and not productivity alone), offering a new measure of discrimination. Likewise, it can detect discrimination between employees in different occupations or industries. It can compare employees whose productivity is unknown, so long as market failures can be deduced in a different manner (such as uncompetitive conditions). It can deduce the presence of discrimination by measuring and comparing uncompetitive profits.

The CMF definition can recognize discrimination between people who are, or are not, equally productive, but nevertheless suffer from discrimination related to a market failure, which may include: transaction costs in the labor market, barriers to entrance and labor mobility (i.e. professional licensing, segregation or immigration policies), information problems, government regulation or bureaucracy that negatively affect markets, taxation, the presence of firms with market power (either in the product or labor markets), unionization, rents, and under (or over) supplied public goods. An empirical added value of this definition is that any method that can measure inefficiency associated with market failures (including the standard unequal pay for equal productivity) can now be used to verify and measure discrimination.

This abstract argument may call for an example. Let us assume that the government is turning a blind eye towards cartel-like activities in an industry. Let us assume that an empirical study shows the licensing of accountants is unnecessarily strict in a specific jurisdiction, which leads to extra-competitive wages. One can complement such a study by looking for correlations between race and licensed accountants. If a

---

48. See Hamermesh, *supra* note 32.

49. See *supra* Section 3 (discussing the discriminatory tastes issue).

172 NORTH CAROLINA CENTRAL LAW REVIEW [Vol. 33:163

correlation exists, one can deduce discrimination under the new definition. This deduction ties legal regulation and enforcement of competition to its discriminatory result.

For another example, take occupations A and B, both having different productivities. Under the current definitions, one can find only discrimination within the occupations, but not between them. This may be counter-intuitive if one occupation is predominantly masculine and the other feminine, since it is possible to create such discrimination. Blatant discrimination may occur under an extreme case of market failure. An example of such discrimination would occur if a government is not allowing women into occupation A, where wages are subsidized (but are not necessarily higher). Milder versions of discrimination may occur if the occupation that men prefer is favored for whatever anti-competitive reason. The complementary definition is more intuitive in this sense. It can identify inter-occupational discrimination for what it is.

This paper's proposed definition better suits intra-market discrimination. An efficient action by employers will not fall under the first half of the definition, and will not be considered "discriminatory" (these actions still may be considered discriminatory under legal or philosophical definitions), even if it is taken against a member of a minority group. The fact that minorities are subject to discrimination in education, social-economic contacts and the like are pre-market occurrences.<sup>50</sup> An employer facing an employee in competitive conditions will – under economic rationality – consider only his current abilities and not abilities he would have possessed had he not been subject to past discrimination.<sup>51</sup> Likewise, an employer may consider a candidate's references without noting their social reasons or economic costs. Indeed, this is a shortcoming of this definition, but it helps us draw a significant distinction between the rationality of the autonomous employer acting under individual-specific current economic incentives, and the rationality of society – accountable through its extra-market powers – for the structure of the markets and for long-run social reality.<sup>52</sup>

In regard to "discriminatory tastes," the new definition, as presented up to now, is not better than Becker's. As noted before, efficient markets let such tastes affect prices (including wages), and a paradoxical result must ensue.<sup>53</sup> However, one can modify the new

---

50. See Altonji & Blank, *supra* note 11, at 3201-07.

51. See Kenneth J. Arrow, *Rationality of Self and Others in an Economic System*, 59 J. Bus. S385 (1986) (explaining economic rationality).

52. For a long-run perspective on economic discrimination, see Cain, 1986, *supra* note 6, at 697.

53. See *supra* Section 3.

definition by reintroducing the assumption that employers' utility functions are constrained to "profit maximization." Under such a modification, some discriminatory tastes within the production process (meaning, by employers, but not by coworkers or consumers<sup>54</sup>), will register normatively (or semantically) as a market failure. Correcting for this failure will not lead to the aforementioned paradoxical results; rather, it will both reduce discrimination and increase efficiency.

This CMF definition is indirectly justified by the first theorem of welfare economics.<sup>55</sup> Market failures that lead to economic disadvantage, or to anticompetitive profits, represent unequal opportunities under the economic process. Moreover, competition does not just happen; society sets the laws and institutions that facilitate and enforce it, such as property law, contract law, antitrust law and law enforcement.<sup>56</sup> We need to know whether these rules and resources function properly not only for the privileged, but also for minorities and women, and whether they are violated in biased ways. And indeed, as we saw earlier, most empirical studies suggest correlations between market failures and discrimination.<sup>57</sup> Such results point to ways in which we can amend the rules of the game in order both to facilitate market operation and to reduce discrimination.

The distinction between "inefficiency" and "market failures" is complex and important for the argument. We cannot substitute the CMF definition with a more abstract "group correlated inefficiency" definition, because market failures do not add up (the "second best" point<sup>58</sup>) and affect welfare in varying ways. Even so, market failures lead to inefficiency, so the distinction is not a dichotomy.

Indeed, the absence of market failures (i.e. perfect competition) implies efficiency, but as shown by the theory of "second best," market failures do not necessarily add up.<sup>59</sup> One market failure, when combined with another, may improve efficiency.<sup>60</sup> Moreover, the welfare

54. For an argument claiming that discrimination by consumers is not expected to lead to significant wage discrimination, see Cain, 1986, *supra* note 6, at 711.

55. See Mark Blaug, *The Fundamental Theorems of Modern Welfare Economics, Historically Contemplated*, 39 HIST. POL. ECON. 185 (2007).

56. See, e.g., Armen A. Aichian & Harold Demsetz, *The Property Rights Paradigm*, 33 J. ECON. HIST. 16 (1973) (property law); Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J. L. & ECON. 297 (1978) (contract law); William F. Baxter, *Posner's Antitrust Law: An Economic Perspective*, 8 BELL J. ECON. 609 (1977) (antitrust law); Anthony T. Kronman, *Contract Law and the State of Nature*, 1 J. L. ECON. & ORG. 5 (1985) (law enforcement).

57. See *supra* Sections 2-3.

58. See R. G. Lipsey & Kelvin Lancaster, *The General Theory of Second Best*, 24 REV. ECON. STUD. 11 (1956-57).

59. *Id.*

60. *Id.* at 12.

effects of market failures can go either way – more efficient may be less equal and vice versa. For example, minority employees may benefit from forming their own cartel (a workers' union that raises their wages remedying discrimination due to other causes), or be harmed by another cartel (a workers' union that uses "closed shop" agreements to inhibit minorities from gaining employment in an industry). The correlation between social groups and market failures exists in both instances, but the answer to the question "who is discriminated against" cannot be made without the additional information. These issues prevent us going from the CMF definition into a more abstract "group correlated inefficiency" definition.

Note that this paper's definition looks for "correlations" rather than "causes," "perpetrators" or "discriminatory intentions." It can do so because its precondition – market failure – is considered negative in itself, and demands social responsibility to fix it. Any group or individual who benefit from this kind of negative social situation can be considered accountable, even if the beneficiary was unaware or did not intend to benefit. Any group or individual who suffers can be considered mistreated. Since we are focusing on an economic definition, the actual discrimination is perceived primarily as a market problem. Noting this, one could respond to the claim that "discrimination" must be based on personal tastes or information problems, by saying that biasing the rules of the game against minorities is at least as discriminatory.

## V. CONCLUSION

The economic definitions of "employment discrimination" originated in philosophy and law. They replaced the concepts in the original definition – "merit," "prejudices" and "treatment" – with the economic concepts of "productivity," "taste," "information," "correlation" and "wages," and analyzed them through microeconomic and econometric methods.

The proposed definition complements existing definitions by replacing the concepts of "merit," "prejudices" and "treatment" with the economic concepts of "market failure" and "correlation." It indicates discrimination created by the legal construction of markets.