A Review of Thomas Sowell's Discrimination and Disparities[†]

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In Discrimination and Disparities, Thomas Sowell describes how economists think about the causes of disparities in socioeconomic outcomes. He cautions against government intervention to reduce disparities, noting that such interventions often have unintended consequences. In this review, I discuss the role of economic theory and empirical evidence in helping move society toward more equitable outcomes. I find far more reason to be hopeful about the role of government than Sowell does, but also argue for more experimentation and rigorous evaluation to be sure that our well-intentioned policies have their intended impacts. (JEL D63, J15, J16, J71, J78)

1. Introduction

Thomas Sowell's book, Discrimination and Disparities, considers the source of disparities in economic outcomes and the role of government in addressing them. His first point is that not all disparities are due to discrimination—a point well supported by economic theory and evidence but often a source of confusion in public conversations. He goes on to provide examples of how misattributing disparities to discrimination leads to misguided government interventions that actually make things worse, increasing disparities where they'd intended to shrink them. His conclusion is, essentially, that we should stop trying to

Most economists would agree with Sowell on his definitions of discrimination and the potential unintended consequences of government intervention. But many including me—will disagree with him about the current state of evidence and his policy takeaways. My interpretation of existing evidence is that government intervention can move us closer to our societal goals and make markets work more efficiently. But the possibility of unintended consequences is real and should push us to (i) consider what is causing the disparities we want to address, (ii) design interventions that target those underlying causes, and (iii) rigorously evaluate the policies we implement to make sure they are having the net benefits we'd hoped for.

intervene in markets we don't fully understand and allow the invisible hand of market forces to reduce disparities to efficient levels in the long run.

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2. Discrimination and Disparities: Definitions

Sowell defines three types of discrimination that can lead to disparities in outcomes. (He focuses primarily on discrimination and disparities related to race. I will mostly do the same, though everything here can be applied to disparities related to gender, age, socioeconomic status, and so on.) In Sowell's framework, discrimination 1a is sorting individuals accurately based on relevant characteristics. That is, decisions are made based on qualifications such as education or work history. Racial disparities in economic outcomes are thus driven by racial disparities in those observable characteristics. (Economists typically would not call this "discrimination." However, disparities arising from such decisions have what lawyers would refer to as a "disparate impact" on disadvantaged groups, and this can be used as evidence of discrimination in legal settings.) Discrimination 1b is sorting individuals based on group averages; this is what economists call "statistical discrimination." This type of discrimination is used when gathering enough information on an individual's relevant characteristics—to rely on discrimination 1a instead—is more costly or even impossible. An observable characteristic such as race might then be used as a proxy for unobservable characteristics of interest (such as productivity) if they are statistically correlated. Finally, discrimination 2 is what economists refer to as "taste-based discrimination" or "animus." It occurs when decision makers care about race itself, not race as a proxy for something else. Economists typically model this as a cost incurred by the decision maker when they interact with a person of color: they derive negative utility from such an interaction.

How much do each of these types of discrimination matter? This is an important but difficult question to answer. Sowell questions the existence of racial disparities in the

first place, blaming misleading statistics for making us think reported disparities are bigger than they actually are. For instance, he notes that omitting nonworkers from studies of earnings can bias estimates of racial disparities. This is a legitimate concern, though we'd probably expect the bias to go in the other direction. Indeed, recent work using data that include the zero-earnings observations from nonworkers shows that racial disparities in earnings are in fact larger than they'd previously appeared, and have widened since 1970 (Bayer and Charles 2018). My view is that it is undeniable that large racial disparities in economic outcomes exist; I will not devote more space to this issue.

A more interesting question is what drives these disparities. Several times, Sowell compares the uneven distribution of favorable outcomes in the population to the uneven distribution of phenomena like tornadoes implying that the status quo may simply reflect the natural order of things. He begins the book with a lengthy discussion of how success typically requires many prerequisites (e.g., intelligence, effort, living in a place with good institutions), and the absence of any one can mean failure. This, he claims, means it should not be surprising that success is not evenly distributed. Even if the underlying prerequisites are randomly distributed, the distribution of who is successful will be highly skewed, with only a small share of people having all the prerequisites necessary for success.

What Sowell does not discuss is that random distribution of the prerequisites would not produce outcomes that are correlated with traits such as race. The fact that Black residents of the United States suffer far worse outcomes than White residents implies that the probabilities that these various prerequisites are satisfied vary by race. Some have argued that this is due to differences in genetic makeup; to his credit, Sowell does not make this argument, and in fact seeks

to provide an alternative explanation. But if outcomes are correlated with race then this necessarily implies that underlying opportunities or circumstances must be distributed in a way that is correlated with race. Sowell argues that this is not necessarily due to malice, and that is certainly true. But such outcomes also cannot simply be due to chance.

This position—that racial disparities are due to random chance—is odd in part because it seems to blatantly ignore societal realities, and also because it does not seem necessary for the arguments that follow. While noting repeatedly that he is not ruling out discrimination 1b and 2, Sowell spends much of the book arguing that most existing disparities are due to discrimination 1a—that is, accurate sorting of applicants by employers, banks, and so on. Disparities based on accurate sorting on traits like educational attainment can be due to unequal opportunity—say, less access to good schools as a child. Differences in opportunity are not an employer's fault or responsibility, but are also not natural phenomena. They should direct us to address those childhood disparities as the way to reduce adult disparities. Ignoring this implication serves only to deny our power to change the status quo.

I also found it strange and misleading that Sowell does not engage at all with the large and ever-growing economic literature on whether people are treated differently due to their race. There is plenty of rigorous evidence that discrimination 1b and 2 (statistical discrimination and animus) exist and are pervasive. So, we know that disparities are

¹For reviews see Charles and Guryan (2011), Lang and Lehmann (2012), Guryan and Charles (2013), Bertrand and Duflo (2017), and Neumark (2018), among others. Of course there are caveats and many unanswered questions. See Heckman and Siegelman (1993) and Heckman (1998) for critiques of audit studies that remain relevant; Neumark and Rich (2019) for a reexamination of a subset of field experiments; and Charles and Guryan (2011) for a discussion of various open questions related to the presence and mechanics of discrimination.

not solely due to discrimination 1a (discerning real differences between people), though quantifying the overall contribution of each type of bias is still difficult.

Nonetheless, I appreciate Sowell's thorough and accessible discussion of how economists think about discrimination and disparities (distinguishing discrimination 1a from 1b and 2); this is by far the strongest aspect of the book. And I agree with him that it is important to distinguish between these different reasons for disparities across groups. Understanding the cause of racial disparities in hiring, for instance, is key for designing policies that can shrink those disparities. I'll provide examples of this below. However, I found Sowell's lack of engagement with current theory and empirical evidence—including on the ability of markets to eliminate discrimination—disappointing and unproductive.

3. Why Doesn't Market Competition Eliminate Discrimination?

It is worth considering how and why discrimination persists in competitive markets. Many are familiar with Becker's model of taste-based discrimination (Becker 1957). This classic model predicts that as long as there are a sufficient number of unbiased employers, they will take advantage of biased employers' prejudice and hire Black workers at lower wages, thus increasing their profits. Over time, these unbiased employers will drive biased employers out of business, eliminating the racial gap in pay. So, how do we find ourselves in a world where discrimination exists?

Economists have considered this question over several decades, demonstrating that variations on Becker's model can produce persistent racial disparities in wages and employment (see Charles and Guryan 2011 and Lang and Lehmann 2012 for reviews). For instance, statistical discrimination

against Black workers in the labor market—what Sowell refers to as discrimination 1b—can lead Black youths and young adults to invest less in human capital that is not perfectly observable by employers. Intuitively, if individuals will be compensated primarily based on their group's average (instead of their own skill level), they will have less incentive to attain better-than-average skills. (This is fundamentally a shift from a model with perfect information to a more realistic one where worker quality is not perfectly observable by employers; see Lundberg and Startz 1983 and Coate and Loury 1993.)

Adding search costs to models of the hiring process can also produce persistent disparities in employment and wages. If even a few biased employers exist, and it is costly to search for better opportunities, then Black job seekers will have lower reservation wages, leading them to accept lower offers. This in turn incentivizes unbiased employers to offer Black job candidates lower wages as well, leading to racial disparities in equilibrium. See Lang and Lehmann (2012) for a full discussion.

Acknowledging the relevance of social networks also leads to important insights (Loury 1998). Even small amounts of discrimination can result in racial segregation of housing and employment, with corresponding effects on networks. Individuals whose networks are relatively disadvantaged can be thought of as having less social capital (an important form of human capital); they will find it difficult to improve their economic outcomes. In a world where one's peers affect social norms (which can shape individual preferences), access to resources like credit (for human capital investment) and information about job openings, even discrimination against members of previous generations can lead to worse outcomes for individuals today. This also means that the choices of any individual have externalities—they affect others in that person's network. This will generally lead to suboptimal investments in human capital, as the individual does not consider the external benefits of such investments when making decisions.

Because segregated networks limit social interactions between members of different groups, they can also slow the rate at which employers update inaccurate group stereotypes about worker productivity (see Arrow 1998 for a discussion). Bordalo et al. (2016) propose an economic model of inaccurate stereotypes, showing that common cognitive biases lead to systematic mistakes in how humans recall population distributions, in a way that exaggerates true differences across groups. This could lead people to overestimate the likelihood that a young Black man has a criminal record, for instance, based on the "kernel of truth" that young Black men are more likely than members of other groups to have criminal records. Statistical discrimination based on such inaccurate stereotypes could further reduce disadvantaged groups' investment in their human capital, because they reduce the payoff to such investment.

One need look only as far as the economics profession for examples of such market failures. Economics has long faced gender and racial disparities at various points in the academic pipeline—from the composition of college majors and new PhDs to the composition of full professors, particularly in higher-ranked institutions (Lundberg 2019, Committee on the Status of Minority Groups in the Economics Profession 2019). There are at least two reasons that these disparities are concerning: (i) current practices are leading to inefficient outcomes (discussed in more detail below); and (ii) the current lack of diversity limits the quality of ideas produced by the profession, due to existing economists' limited personal experiences relevant to important research and policy questions.

As in other contexts, it is not obvious, a priori, that existing disparities are due to

discrimination within the economics profession—they might be due to preexisting differences in training or broader social norms that shape career preferences. However, there is rapidly accumulating evidence that current norms and practices in the economics profession result in biased treatment of women and other underrepresented groups (Lundberg and Stearns 2019). It is straightforward to see how these biases can contribute to persistent and inefficient disparities that market forces alone will not shrink.

As described above, high search costs in the academic job market imply that even a few biased employers can cause persistent disparities in employment and pay, even if there are no disparities in publication or other observable output. But it appears that such disparities in output do exist, even when underlying productivity is the same. Several studies show that women are held to a higher standard in academic publishing. Papers in top journals by female authors are cited more often than similar papers by men, suggesting that they are more meaningful contributions to their literatures (Grossbard, Yilmazer, and Zhang 2018; Hengel and Moon 2020; Card et al. 2020). It appears that referees and editors push female authors to write more clearly than male authors in order to convey and defend their ideas—consistent with their being less likely to give female authors the benefit of the doubt when writing is unclear (Hengel 2020). This gender gap in writing quality widens over individuals' careers, suggesting that women rationally respond by spending more time investing in this skill (an investment that men do not need to make). This also lengthens the time it takes to publish each paper, which could reduce the likelihood of tenure for women on the margin.

Even after papers are published, women may not get equal credit for their work. Sarsons (2017) finds that while sole-authored work increases the likelihood of tenure and promotion equally for men and women, coauthored work benefits men more than women (that is, women systematically get less credit for coauthored work, particularly when the work is coauthored with men). Student evaluations of teaching are often considered when setting pay and determining promotion, and there is now extensive evidence that such evaluations are biased against female professors (MacNell, Driscoll, and Hunt 2015; Boring 2017; Mitchell and Martin 2018; Mengel, Sauermann, and Zölitz 2019). Recent work has also shown that women are more likely to be tapped for low-promotability tasks (think departmental service) than men are (Babcock et al. 2017; Babcock, Recalde, and Vesterlund 2017).

If we consider two equally productive junior faculty, one male and one female, the research described above suggests that the woman will likely publish fewer articles and in lower-ranked journals, get less credit (e.g., from colleagues and letter writers) for the work she does publish, get lower teaching evaluations, and spend more time doing departmental service and other low-promotability tasks (which in turn will likely slow her research output further). This all means she will be less likely to garner outside offers or be promoted within her own institution. Even if her department chair and colleagues are not biased themselves, biases in the publication and evaluation processes mean it would be rational to statistically discriminate against women in hiring and wage decisions because, on average, women will appear less productive and have fewer outside options. This could lead rational female students not to pursue a PhD in economics or career in academia in the first place, or to invest less in their research agenda even if they stay on the tenure track.

Finally, there is evidence that women and racial minorities have weaker and more segregated networks that hinder mentoring,

research collaborations, and research dissemination (McDowell, Singell, and Stater 2006; Ductor, Goyal, and Prummer 2018; Romer and Wolfers 2018; Doleac and Pancotti 2020). Segregated networks within the profession make it difficult for members of these groups to get seminar and conference invitations that would increase their social capital (including access to potential mentors, collaborators, and referees), provide feedback on their work, and give them access to job opportunities (particularly in the advanced assistant and senior academic markets, where hiring depends heavily on word-of-mouth and personal knowledge of whether potential candidates are "movable"). Segregated networks also allow negative stereotypes to develop and persist (e.g. that women are always the trailing spouse, or that childcare responsibilities make them unwilling to travel for work), resulting in further statistical discrimination based on these inaccurate beliefs and, in turn, even less up-front investment by the groups that are the subject of these stereotypes.

If discrimination can persist in the economics profession—where we are trained to notice and address market failures like these—it is not surprising that it can persist in other contexts. The question now is what to do about it.²

²The evidence on what works to reduce disparities in this and similar contexts is thinner, but also increasing (Boring and Philippe 2017, Romer and Wolfers 2018, Flory et al. 2019, Boustan and Langan 2019, Buckles 2019, Porter and Serra 2020). Rigorous evaluation of future interventions will be crucial since well-intentioned policies in this area can easily have unintended consequences. Examples of interventions that have been shown to unintentionally reduce diversity in the application and hiring process include simple equal opportunity statements in job postings (Leibbrandt and List 2018), and making job applications anonymous (Behaghel, Crépon, and Le Barbanchon 2015). And interventions such as gender-neutral parental leave—which aimed to reduce gender disparities in promotion by reducing female academics' burden of childcare—unintentionally reduced tenure rates for women in economics while increasing tenure rates for men (Antecol, Bedard, and Stearns 2018).

4. Why Discrimination Type Matters: The Case of "Ban the Box"

A policy example that Sowell highlights is one I spend a lot of time thinking about: low employment rates for people with criminal records, and efforts to increase employment for this group. A primary motivation for policy efforts in this space is to reduce racial disparities in employment. Given large racial disparities in who has a criminal record in the United States, low employment rates for this group disproportionately harm people of color, particularly Black men.

Why don't employers hire people with criminal records? It could just be that, on average, those with records are less qualified for the job—maybe they have less education or work experience. These reasons would be examples of discrimination 1a in Sowell's framework. Low labor force attachment rates for people even before their first conviction or incarceration (Mueller-Smith 2015, Looney and Turner 2018) suggest that discrimination 1a is an important factor in this discussion.

But we know that people with criminal records are less likely to get callbacks from employers even when all other observable information is held constant (Pager 2003, Agan and Starr 2018). This may contribute to recidivism and other social ills, with resulting social costs that are not internalized by employers. Such negative externalities lead to inefficient outcomes that justify government intervention. The key question for those trying to design effective policies is why employers are discriminating against applicants with criminal records in the first place. Is it that employers view a criminal record as a negative signal about other characteristics they care about but cannot observe—traits like honesty, reliability, interpersonal skills, or the likelihood of committing a crime on the job? If a criminal record is correlated with these underlying traits, then this would be discrimination 1b in Sowell's framework—"statistical discrimination" in common economic parlance. If employers simply do not want to associate with people who have broken the law, and there is nothing you could tell them about the person in question that would change their mind—that is, they care about the criminal record itself, not as a proxy for something else—then this is discrimination 2 in Sowell's framework, and "taste-based discrimination" or "animus" in economic terms.

We don't yet fully understand why employers discriminate against people with criminal records—this is one of many relevant questions on the research frontier. But the reasons are important because they have different policy implications. If employers are statistically discriminating against people with records, and don't actually care about the records themselves (discrimination 1b), then we can reduce the disparities by providing more information about the applicant's underlying traits (honesty, productivity, and so on), or by reducing the correlation between having a criminal record and having the negative traits that employers worry about (by investing in rehabilitation). If employers' discrimination against people with records is due to simple animus, then we'll need to increase the cost of such discrimination (by making it illegal, for instance, or providing financial incentives to hire people from this group), until the perceived cost of hiring the person is equal to the perceived benefit.

And to the extent that broader disparities in employment for people with and without records are driven by disparities in their true work-readiness (discrimination 1a), we'll need to invest in education and programs that make them more productive.

Policies that target one source of disparity when another was at work can be ineffective at best, and have important unintended consequences at worst. For instance, "ban the box" (BTB) policies prohibit employers

from asking a job applicant about their criminal record until late in the hiring process. Employers can still run a background check before hiring the person, but then are often required to justify a decision not to hire that applicant if their criminal record is worrisome. The goals are (i) to allow more people with records to get their foot in the door, possibly allowing them to build rapport with and signal their work readiness to an employer during an interview; and (ii) to increase the costs associated with not hiring someone because of their criminal record. That is, the policy is targeting discrimination 1b (with additional information conveyed during an interview) and discrimination 2 (with increased costs of not hiring someone with a record once a background check is conducted).

This policy's effects will depend on what drives the disparities it aims to address. If employers' reluctance to hire people with records is due to discrimination la (for instance, low education) then BTB won't have any effect on outcomes—the same people will be sorted out during the hiring process as before. If their reluctance was due to discrimination 1b (and an interview does not reveal the information of interest to the employer) or discrimination 2 (animus), then BTB can have unintended consequences. In these cases, BTB does not change employers' concerns about hiring someone with a criminal record, but (by design) now makes it more costly to differentiate between otherwise-similar applicants with and without records. After BTB, employers need to go through the full interview process with an applicant, and make a conditional job offer, before they can ascertain whether the applicant has a criminal record that the employer perceives as disqualifying. At that stage, if they decide not to hire an applicant because of his record, they risk legal scrutiny of that decision.

Once threatened with these additional costs, employers may simply try to guess

which applicants have a recent criminal conviction that would concern them, and avoid even interviewing those people. Though they can no longer see that information up front, they may try to infer it from the remaining characteristics they can see, such as age, sex, race, and education. They would then statistically discriminate against groups that are more likely to have a recent conviction, such as young men of color who don't have a college degree. In Sowell's terms, they may engage in discrimination 1b against applicants from this group—a much larger group than suffered from discrimination before. This harms young, low-skilled Black and Hispanic men who don't have a criminal record. They were able to easily signal their clean record to employers before BTB, but now cannot. This reduces their rate of callbacks and employment.

Sowell cites research showing that employers' access to criminal records was associated with increased hiring of Black men (Holzer, Raphael, and Stoll 2006); this suggests that statistical discrimination based on race is used in the absence of criminal record information. More recent research shows that—as economic theory predicts—BTB made this problem worse: when employers cannot ask about criminal records, they increase statistical discrimination based on race, and net employment of young, low-skilled, Black men falls (Agan and Starr 2018, Doleac and Hansen 2020). Other recent research shows that BTB is not helping people with records get jobs (see for example, Rose 2021 and Jackson and Zhao 2017), likely because the policy does not address the reasons for employers' initial reluctance to hire people from this group.³ (These candidates can still

The effects of BTB highlight important problems with how our legal system currently tries to reduce discrimination. Courts often consider evidence of a "disparate impact" on disadvantaged groups to be sufficient to ban the use of particular information (such as criminal records) in the hiring process. But the statistical correlation that produced the disparate impact (for instance, on Black men) is exactly what leads to unintended consequences when that information is removed (in this case, statistical discrimination against Black men). This means that the current disparate impact standard used in courts could do more harm than good: banning the use of information based on its disparate impact on a particular group may effectively broaden the discrimination to that entire group.

5. Can Policy Interventions Reduce Disparities?

BTB provides a clear example of one of Sowell's main points: unintended

be rejected when their criminal record is checked at the end of the hiring process.) Two studies find that BTB increases crime and recidivism among Black and Hispanic men, presumably because the policy makes it more difficult for them to find work (Sabia et al. 2020, Sherrard 2020). There is also evidence that BTB incentivizes some applicants without records to get an occupational license that is off-limits to people with certain convictions, as a way to "buy back the box" that legislators banned (Blair and Chung 2018, Marchingiglio 2019). These findings highlight the complex interactions of information within labor markets, and how important it is to consider the likely behavioral responses to any policy change.

³Two additional studies claim to find that BTB had beneficial effects for targeted groups, but data limitations make their estimates difficult to interpret (Shoag and Veuger

^{2016,} Craigie 2020). For more complete reviews of this literature, see Agan and Doleac (2017) and Doleac (2019a, b, c).

consequences of government interventions are a real concern. And while unintended consequences are common, there are even more public policies that simply do not have their intended benefits. But Sowell is much more pessimistic than I am about the power of government to do good. Indeed, he focuses on the lack of market incentive for governments to be effective—there is no competing firm that will take a government bureaucrat's job if his program fails, and political incentives often prevent policy makers from admitting when an existing program is ineffective or counterproductive. "Costs matter," Sowell writes.

I agree that incentives are powerful drivers of behavior and can stymie well-intentioned policy efforts. And many policies remain in place not because they are effective but because they are politically convenient. But basic economic theory reveals that markets can and often do produce inefficient outcomes, and that government intervention can increase efficiency. Market failures occur all the time. Yes, public policy can do tremendous harm (Sowell repeatedly cites slavery and the Holocaust as examples, and other, less extreme examples abound). But government can also do tremendous good. Sowell simply ignores evidence of policy interventions that successfully reduced disparities. Government intervention is not always the answer, but it has an important role to play, often in conjunction with market forces, rather than in opposition to them.

5.1 Improving Outcomes for People with Criminal Records

Let's continue our focus on employers' discrimination against people with criminal records for a bit longer. The worst case scenario for policy makers is that disparities are driven by discrimination 2 (animus). In this case, legal penalties for not hiring people due to their criminal records may be effective, but only if they can be enforced well enough

not to result in unintended consequences (e.g., increasing statistical discrimination against Black men). It is not clear that this is possible in practice.4 Subsidizing the wages of people with criminal records to overcome employers' perceived costs of hiring them may also be effective, but the existing (albeit thin) evidence base suggests that such subsidies need to be larger than the tax incentives that are currently in place (Hunt et al. 2018, Valentine and Redcross 2015). However, an advantage of using such hiring incentives instead of legal penalties is that the former are less likely to produce detrimental unintended consequences (i.e., statistical discrimination against Black applicants).

If employers were originally engaged in discrimination 1a (accurately discerning individual differences) or 1b (statistical discrimination), then we have more options. Interventions that directly address employers' concerns will likely reduce existing disparities, and avoid the unintended consequences that policies like BTB have. One possible source of discrimination 1b is the concern that an employee might commit a crime on the job; in such a scenario, a previous criminal record could look like a red flag that an employer should have noticed, putting them at risk of a negligent hiring lawsuit. If employers avoid hiring people with records due to such legal liability concerns, then policies that shift the legal risk from employers to other entities—say, the courts—could increase employment for this group. Alternatively, if employers are worried that a record is a negative signal about other (unobservable) traits that affect productivity (for instance, reliability and interpersonal skills), then we could imagine interventions

⁴Many lawyers I talk with are more optimistic than I am about the potential of increasing enforcement, so it is worth testing such interventions—but only if we rigorously evaluate their impacts to make sure these efforts don't backfire.

that provide more information about those characteristics, thus allowing employers to distinguish between applicants with records who are work-ready from those who are not. That is, we can think of this as a matching problem, where employers are trying to find applicants who are a good fit for the job, and vice versa, in a market where relevant information is costly to obtain. Providing information that facilitates better matches would help employers and job seekers alike.

One approach could be funding intensive rehabilitation or job training programs that either improve participants' work readiness or screen applicants for employers. (For the purpose of signaling, it doesn't matter if the program has any real effect on the participants themselves, as long as most people who make it through the program are good bets from an employer's perspective.) There is anecdotal and descriptive evidence of reentry programs that become "feeders" for local employers, along these lines (Piehl 2009). Programs like cognitive behavioral therapy also appear effective (Heller et al. 2017), and the beneficial effects of incarceration in countries like Norway imply that rehabilitation is possible (Bhuller et al. 2020). We need much more research in this area to understand which programs are effective, but I am optimistic that we will figure this out.⁵

Court-issued rehabilitation certificates are another promising policy option. In many jurisdictions, someone with a criminal record can go before a judge to argue that they have been rehabilitated. If the judge is convinced, they can issue a certificate to this effect, which can be presented to potential employers, landlords, and so on. These certificates might increase employment and other opportunities for people with criminal records if they are perceived as credible signals about the person's work readiness,

trustworthiness, and other relevant characteristics that would otherwise be unobservable. They might also be helpful if they shift legal liability risk from employers to the courts: if the person does commit another crime on the job, the employer can point to the certificate as evidence that they did not hire in a negligent manner. Two recent studies show that these certificates do increase callbacks for job and housing applicants (Leasure and Stevens Andersen 2016, Leasure and Martin 2017): in the employment study, those with a certificate and a felony conviction were called back at equal rates as those with no conviction at all. (Those with just a felony conviction were called back at lower rates, consistent with previous studies.) This suggests that providing more information about applicants with criminal records (in the form of a court-ordered certificate) can be more effective than removing information (i.e., BTB policies).

The above interventions have the potential to improve upon current outcomes. They provide examples of how understanding the underlying source of disparities helps us design effective policies to reduce them.

5.2 Reducing Other Disparities in Society

Sowell's skepticism of the potential of policy to reduce disparities extends to other contexts, but again I believe he is too pessimistic. I'll discuss evidence related to examples that featured prominently in Sowell's book, but this is not intended as a comprehensive review and does not imply that other success stories don't exist.

Sowell states that government desegregation efforts—including mandatory busing for school kids—had no benefits, but he provides no research evidence to back up this claim. In fact there is substantial research evidence that desegregation efforts, including busing, improved long-term outcomes for Black students, with little if any evidence that these policy changes harmed incumbent

 $^{^5}$ See Doleac (2019c) for a review of existing evidence on how to reduce desistance from crime.

White students.⁶ The fact that many White parents moved their children to other districts or private schools when their local public schools were integrated is important, but the net effect is an empirical question. It was possible, a priori, that such behavioral responses by White families could negate any government efforts or that desegregation might harm White students in a way that "canceled out" the benefits to Black students from a social planner's perspective. This is good reason to evaluate the net impacts of these policies, but it is heartening to find that existing research does not support these concerns. While controversial, desegregation policies appear to have been extremely effective, and their rollback appears to have had detrimental consequences.

Sowell highlights the Moving to Opportunity (MTO) housing voucher experiment as another example of a failed government intervention aimed at reducing disparities. The initial findings based on MTO were indeed disappointing, but more recent results show that MTO had longer-term benefits that were not previously evident (Kling, Liebman, and Katz 2007; Chetty, Hendren, and Katz 2016). In addition, Chyn (2018) shows that when disadvantaged families are forced to move to better neighborhoods due to the demolition of public housing, their kids are substantially better off. This raises the question of why more families didn't volunteer for MTO or take the housing vouchers when they were offered. It may be that families want to move to better neighborhoods, and that government assistance can facilitate this, but that there are still substantial barriers to using housing vouchers for this purpose even when they're available. More recent work is experimenting with add-on interventions that make it easier for families to use these vouchers, and the results are encouraging (Bergman et al. 2019). Rather than demonstrating the futility of government intervention, this example highlights the importance of evaluating and iterating upon the interventions we try, to make sure they're having the benefits we'd hoped for. Additional study of the externalities of these policies, on incumbent residents of neighborhoods that disadvantaged families are moving into, would be helpful. Sowell raises the possibility that these policies may impose costs on these families, and I agree that we need to learn more about this; perhaps there are ways to mitigate any costs that exist.

Government- or court-ordered affirmative action and quotas have been used to increase minority and female employment in a variety of contexts. A long literature documents that federal regulation encouraging affirmative action successfully increased Black employment (see for example Leonard 1990 and Kurtulus 2016). Miller (2017) shows that these effects persisted even after enforcement of the policies ended. He argues that these persistent effects can be explained by employers' increased investment in recruiting and screening processes that allowed them to identify and hire qualified minority workers. Even after they were no longer incentivized to hire minority workers by government policy, employers (by revealed preference) found it profitable to do so, perhaps because they were newly able to identify qualified applicants that they could not identify before. The firm's initial investment in hiring minority candidates—spurred by affirmative action—can thus be thought of as an investment in better screening technology. Athey, Avery, and Zemsky (2000) discuss how

 $^{^6\}mathrm{See}$ for example: Angrist and Lang (2004); Guryan (2004); Reber (2010, 2011); Johnson (2019 a, b); and Billings, Deming, and Rockoff (2014).

⁷Imposing quotas and affirmative action to increase the diversity of police departments was similarly successful, leading to increased representation of both Black and female officers (McCrary 2007; Miller and Segal 2012, 2019)

workplace mentoring can lead to a similar outcome. In their framework, the hiring of more minority candidates during some initial period pushes a firm to a different steady state: having more minority employees in senior positions increases "type-based" mentoring and enables increased promotion of future minority candidates, even after the affirmative action policy has ended. This can have important positive externalities, perhaps incentivizing individuals from minority groups to invest in their own human capital once they see that the potential benefits from doing so have increased (Lundberg and Startz 1983, Fang and Moro 2011).

Opponents worry that such policies result in hiring less qualified candidates due solely to their race or gender, or to resentment or conflict within targeted organizations; either outcome could reduce an organization's overall productivity. While this is possible in theory, the net effect is an empirical question, and the empirical literature generally finds no evidence of productivity losses due to affirmative action policies (Holzer and Neumark 2000). One potential mechanism is that quotas can increase the number and quality of applicants from targeted groups who apply, thereby canceling out any negative productivity effects (Niederle, Segal, and Vesterlund 2013). In some cases there are important productivity gains: Miller and Segal (2019) found that increasing the share of female police officers increased the reporting of domestic violence incidents and reduced the escalation of domestic violence (reducing rates of intimate-partner homicide). There was no evidence of productivity losses in terms of the investigations or incidence of other crime types. McCrary (2007) also found suggestive evidence of beneficial effects: increasing the proportion of Black police officers in a department reduced arrests of Black residents (a group that is often over-policed), with no detrimental effect on crime rates.

A number of studies consider the effects of gender quotas in political representation. They typically find that requiring more women on the ballot both increases the representation of women in elected office and increases the average quality/competence of the individuals elected, without evidence of any backlash from voters.8 In other words, despite opponents' fears, quotas do not lead to less competent women being elected just because of their gender. To the contrary, it appears that in practice the women elected due to quotas are just as competent as those elected before the quota, but they increase average quality by crowding out less competent men (Besley et al. 2017). Increasing female representation also has long-term benefits in terms of changing voters' views of female leaders: for instance, quotas that required a random subset of Indian villages to elect women reduced male voters' negative views about women's leadership abilities with no effect on their views about male leaders (Beaman et al. 2009). The hypothesized mechanism is that quotas allowed men to experience female leadership, update their views about women as leaders, and improve their ability to screen women candidates on competence (thus reducing reliance on statistical discrimination based on gender). Evidence from Sweden also shows that gender quotas expand the pool of women perceived as qualified for leadership positions (O'Brien and Rickne 2016). In India, the change in attitudes and information led to more women being elected later, when there was no quota (Beaman et al. 2009), and also increased girls' career aspirations and educational attainment, consistent with a rolemodel effect (Beaman et al. 2012).

While such beneficial effects are certainly not guaranteed, these examples demonstrate the potential of government intervention to

 $^{^8}$ See for example, Murray (2010), O'Brien (2012), Baltrunaite et al. (2014), and Besley et al. (2017).

reduce the disparities they targeted, just as they intended. We often talk about an equality–efficiency trade-off in policy making, and sometimes such trade-offs are inevitable (Okun 1975); our goal in such cases is to find the intervention with the largest net benefit. But, as the above examples suggest, sometimes reducing disparities can actually lead to *more* efficient outcomes because they correct market failures.

6. Using the Economics Toolkit to Reduce Discrimination and Disparities

Sowell and I agree that many well-intentioned interventions fail. But economists are uniquely positioned to make progress in this area—both to get our own house in order and to find ways to reduce disparities in society at large. We are experts on market forces, including how market failures like imperfect information and externalities lead to inefficient outcomes. We also understand how incentives affect behavior and spend our days thinking about how people will respond to interventions that aim to change that behavior. When we hear about some new policy or mandate that imposes a cost or changes available information, our natural inclination is to ask, "and then what happens?" How do all the players respond, given their preexisting preferences and incentives? This focus on individuals' choices and incentives provides a unique theoretical lens that contributes important insights to public conversations about how to reduce discrimination and disparities.

Economists are also known for our empirical toolkit, and (related) our obsession with identifying causal effects. We call for rigorous evaluation of well-intentioned policies, even as others roll their eyes at our pessimism. This focus on understanding and quantifying the causal effects of policy interventions means we have empirical strategies at our fingertips for a variety of situations, allowing

us to distinguish correlation from causation in experimental and nonexperimental settings alike.

Together, these skills mean that economists are uniquely positioned to (i) design policy interventions that can reduce disparities, and (ii) test whether those interventions work. As someone who cares deeply about the race, gender, and socioeconomic disparities that harm so many, I am glad that, as an economist, I can help make things better. Unlike Sowell, I consider economic theory not simply a source of caution, but a source of power and insight. Instead of resigning ourselves to the mercy of market forces, I believe we can harness those forces—and the individual incentives that drive them—to create a more equitable world.

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