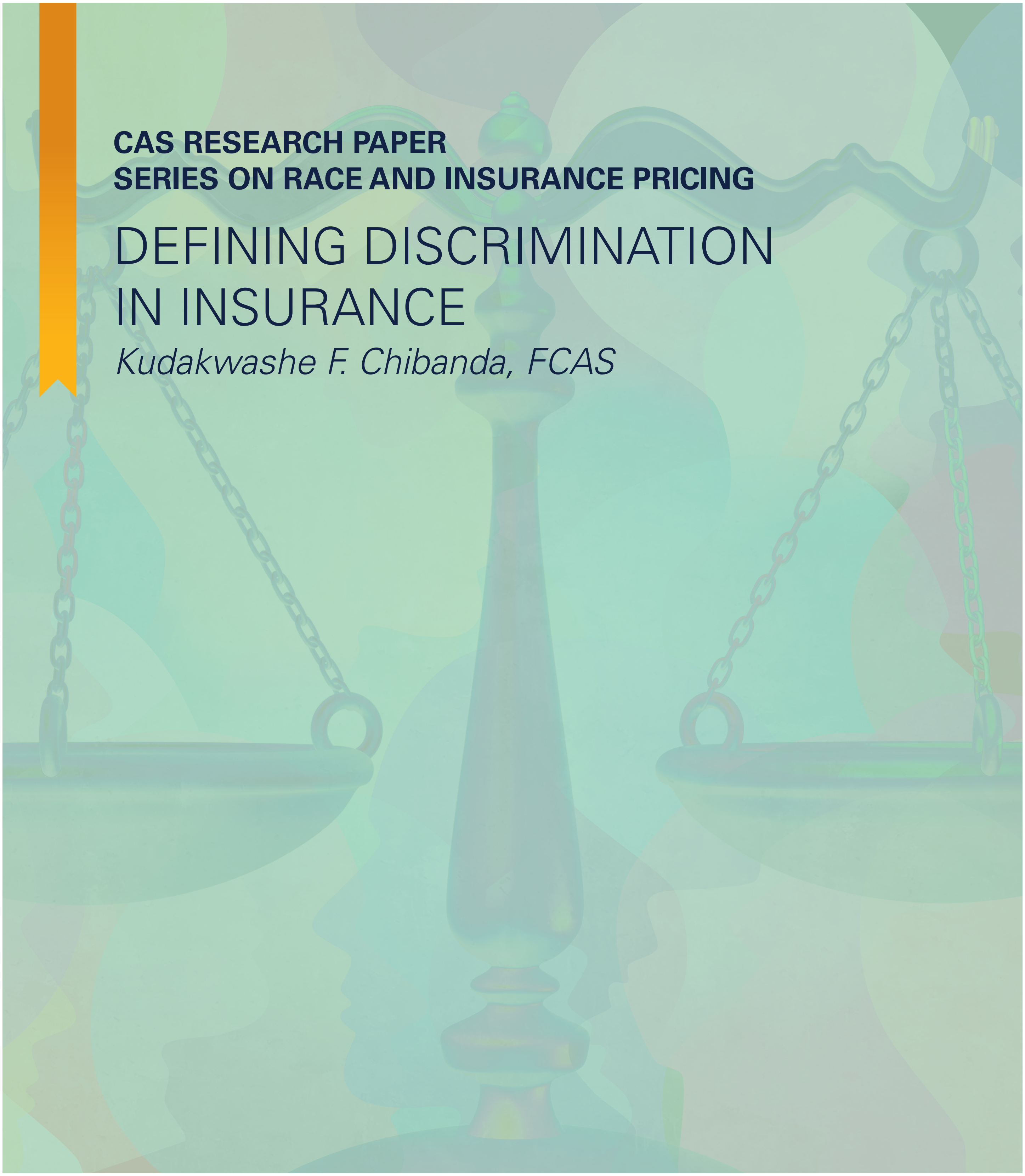

CAS RESEARCH PAPER
SERIES ON RACE AND INSURANCE PRICING

DEFINING DISCRIMINATION IN INSURANCE

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CASUALTY ACTUARIAL SOCIETY

Defining Discrimination in Insurance

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Executive Summary

This research paper is designed to introduce various terms used in defining discrimination by stakeholders in the insurance industry (regulators, consumer advocacy groups, actuaries and insurers, etc.). The paper defines protected class, unfair discrimination, proxy discrimination, disproportionate impact, disparate treatment and disparate impact.

Stakeholders are not always consistent in their definitions of these terms, and these inconsistencies are highlighted and illustrated in this paper. It is essential to elucidate key elements and attributes of certain terms as well as conflicting approaches to defining discrimination in insurance in order to move the industry discussion forward.

While this paper does not make a judgment on the appropriateness of the definitions put forth, nor does it promulgate what the definitions should be, readers will be empowered to understand the components of discrimination terms used in insurance, as well as be introduced to the potential implications for insurers.

Actuaries who have a strong foundational knowledge of these terms are likely to play a key role in informing those who define and refine these terms for insurance purposes in the future. This paper is not a legal review, and thus discusses terms and concepts as they are used by insurance stakeholders, rather than what their ultimate legal definition will be. However, it is important for actuaries to understand the point of view of various stakeholders, and the potential impact it could have on actuarial work. As the regulatory and legislative landscape continues to shift, this brief should be considered a living document, that will periodically require update.

Introduction

Insurance pricing is a high-wire act. It requires actuaries to apply risk-based differentiation while avoiding prejudicial discrimination. Actuaries have long been attuned to this and kept a keen eye on not only complying with laws on unfair discrimination, but also on avoiding any rating variables that could produce prejudice. As regulation and society's understanding of discrimination evolve, however, it is necessary for us to keep abreast of changes in the manner in which discrimination is defined and adjudicated. In 2020 alone, various insurance stakeholders introduced terms such as proxy discrimination and disparate impact, pivoting from previous focus on unfair discrimination. The manner in which these terms are defined directly impacts our work, and so we must evaluate and understand the implications of the language used around discrimination. Only then can we be effective partners in adequately responding to the issue.

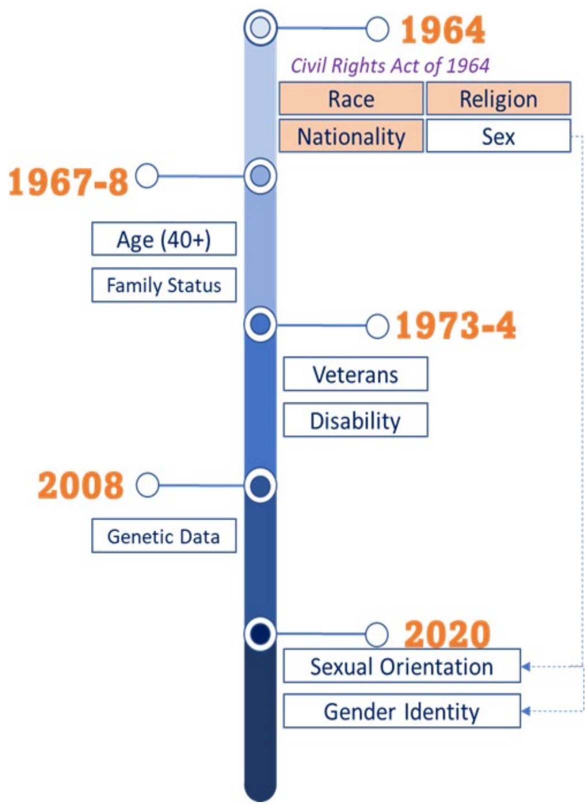
This paper seeks to provide a "one-stop shop" for the most commonly used definitions in the discrimination debate in insurance. Specifically, the paper will compare definitions offered by different organizations and touch on how they could affect actuarial work. It is important to note that the debate on how to regulate discrimination in insurance is ongoing. Therefore, this paper will not conclude which definitions should be used, as ultimately that will be up to regulators. Instead, this paper is intended to give an introductory overview of the topic, and where major stakeholders fall in defining discrimination. Specifically, we will discuss the following:

1. Defining Protected Class
2. Revisiting Unfair Discrimination
3. Disproportionate Impact and Proxy Discrimination
4. Disparate Treatment and Disparate Impact in Insurance
5. How Definitions Compare and Contrast
6. The Way Forward

Defining Protected Class

In the context of the United States, a protected class is a group of people who share a common characteristic, for whom federal or state laws have created protections that prohibit discrimination because of that trait. Race was first granted protected class status in the Civil Rights Act of 1866,[1] which prohibited discrimination based on "race, color or previous condition of servitude." The Civil Rights Act of 1964 further expanded the parameters for how we understand protected class today as shown in Figure 1.[2] Race, religion and national origin (sometimes called the "big three") are most commonly referenced when discussing protected class and are generally what is meant when describing protected classes in the context of insurance rating. However, it is important to note that there are many more characteristics that garner federal or state protection and could thus become the subject of future regulation.

Figure 1. Timeline of U.S. Federal Protected Class Recognition



Insurance companies generally do not collect information on the big three protected classes. As such, discrimination on the basis of these attributes would have to arise from inexplicit use of data that proxies for protected class.

2. Revisiting Unfair Discrimination

The unfair discrimination standard is the hallmark of adjudicating fairness in insurance. The standard was born out of the 1945 McCarran-Ferguson Act (McCarran), from which two insurance stalwarts are derived:

a) *Reverse Preemption*, which cemented the priority of state-based insurance regulation. Under McCarran, if a federal law conflicts with state insurance law and does not specifically relate to the business of insurance, the state law

For reverse preemption to apply:

1. Federal law is **not specific to insurance.**
2. State law pertains to the **business of insurance.**
3. There is a **conflict** between state and federal law.

takes precedence. Prior to McCarran, judicial rulings had alternated between recognizing insurance as intrastate and interstate commerce, which impacted the role of state vs. federal legislation.[3]

b) *Unfair Discrimination*, which states that "rates must not be excessive, inadequate or unfairly discriminatory" to reflect fair discrimination.[4] Interestingly, McCarran does not define unfair discrimination itself. At its 1946 meeting, the National Association of Insurance Commissioners (NAIC) promulgated legislation that would later become the 1947 Unfair Trade Practices Act.[5] A 1951 Arkansas court case opinion[6] defined unfair discrimination as follows:

> No insurer, nor any rating bureau, shall fix or change any rate which discriminates unfairly between risks in the application of like charges and credits, or which discriminates unfairly between risks of essentially the same hazard, territorial classification, and having substantially the same degree of protection.

This definition is consistent with today's understanding, where unfair discrimination is characterized by the absence of a relationship of rates to expected costs. The NAIC model rating law for property and casualty uses a similar definition today:

> Unfair discrimination exists if, after allowing for practical limitations, price differentials fail to reflect equitably the differences in expected losses and expenses.[7]

> McCarran does not explicitly account for protected class in rating. Individual states can and do elaborate on how they define the relationship between protected class and unfair discrimination.

The clear emphasis of the unfair discrimination standard is the relationship between input variables and the resulting expected costs. In this context, *discrimination is not used to describe prejudice, but rather differentiation*. In fact, neither McCarran nor the 1947 Fair Trade Practices Act require insurers to refrain from using protected class as a rating variable.* This is not surprising, given that both acts predated the Civil Rights Act of 1964. Without specific clarification, some insurers could interpret the unfair discrimination standard as allowing the use of any classification, including protected class, as long as a relationship between the classification and expected costs can be demonstrated. For this reason, we look to state regulation to determine what the requirements are for the use of protected class in rating.

State laws interpret the intersection between unfair discrimination and protected class differently. Some states explicitly define unfair discrimination as including the use of certain protected classes, and therefore prohibit their use in any rating activities. Other states limit the

* The 1947 Act does require that insurers refrain from restricting coverage based on race, national origin, religion, sex and marital status, but does not prohibit their use in rating.

use of certain variables for specific activities such as policy issuance or cancellation. A few states have general provisions prohibiting unfair discrimination, but do not define what it encompasses. To illustrate the variability in state regulation of unfair discrimination, see Figure 2 for a depiction of how states regulate personal auto insurance discrimination, using race as an illustrative example.

Figure 2. Continental U.S. Regulation of Personal Auto Insurance Regarding Race Discrimination

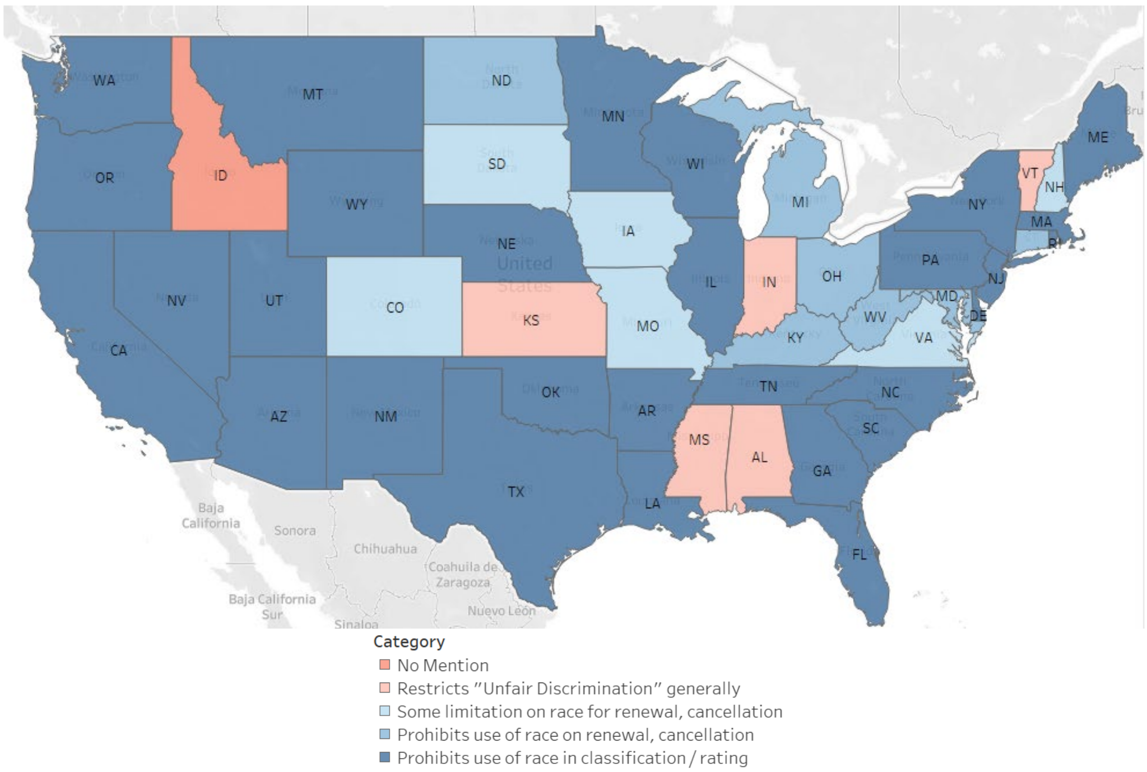


Figure 2's map was created by analyzing state laws and categorizing how each state deals with protections for certain characteristics (in this case, race).† The colors indicate the extent to which race is prohibited in each state. For example, the darkest blue color indicates states where race cannot be used in classification or rating at all, while the deepest red is for states that do not mention any prohibition on protected class at all (which does not apply to any states). Some states fall within the two ends of the spectrum, where they limit or restrict race for renewals or cancellation but not rating. The specific categories are shown in the legend below the map. Differences in state regulation highlight the need for actuaries to evaluate unfair discrimination through its unique jurisdictional characteristics. It is important to note that even though states may address protected class differently by state, they may still address any potential issues

† Thanks to Daniel Schwarcz and Kyle Logue for providing the data used in their paper, "Understanding Insurance Anti-Discrimination Laws." That data was cross referenced against the NAIC's "Prohibition Against Discriminatory Practices in Insurance," and then used to categorize each state's laws in personal auto insurance.

through the filing process. However, it is important for actuaries to understand that not all state laws address protected class uniformly.

3. Disproportionate Impact and Proxy Discrimination

In order to adequately define proxy discrimination, it is instructive to first understand disproportionate impact. The term was used as far back as 2002, when the American Academy of Actuaries (AAA) reported to the NAIC on using credit-based data in personal lines of insurance.[8] In that report, the AAA described disproportionate impact as when "a rating tool results in higher or lower rates, on average, for a protected class, controlling for other distributional differences." The focus of disproportionate impact is therefore on the effects a rating plan has (i.e., the outputs), as opposed to the relationship between input variables and the target, as is the case with unfair discrimination.

Intent in Proxy Discrimination

Intent is at the heart of disparities in defining proxy discrimination. Whether intent is required would drive significant implications in regulation.

To illustrate this, the AAA paper uses the example of minority groups whose average age skew younger than the general population. Since auto insurance rates tend to be higher for youthful drivers, minority groups would have higher than average rates. This would constitute disproportionate impact, even though the disproportionality is the result of multicollinearity[‡] of age and race. Disproportionate impact has not been explicitly defined in recent publications by the major regulatory bodies, so it is unclear whether disproportionate impact has any regulatory impact.

The term proxy discrimination has been used differently by different parties. It can result when a rating factor is used as a substitute for protected class. In such cases, the offending variable would lose its predictive power, at least to some degree, when controlling for protected class. One of the earliest evaluations of this concept came in the 2007 Federal Trade Commission (FTC) report to Congress on credit-based insurance scores (CBIS).[9] In it, the FTC describes a study they performed to "determine whether credit-based insurance scores act as a proxy for race, ethnicity and income in insurance decisions." The FTC conducted tests in order to determine whether CBIS created "omitted variable bias," whereby scores proxy for race. These tests included:

1. Testing whether CBIS predicted risk within racial, ethnic and income groups. If CBIS created differentiation within racial groups, that would suggest CBIS were not a direct proxy for race. The FTC found that those with higher scores had lower predicted risk, even within a racial group.

‡ Multicollinearity occurs when two or more independent variables are highly correlated and could therefore obfuscate each variable's true relationship with the target. The example used above is where age and race have high correlation, such that the relationship of race to rates is not immediately evident.

2. Testing whether average risk differed substantially by race. If there were no meaningful differences in risk across different racial groups, then there would be "no underlying difference for which race could proxy." The FTC found that there was some proxy effect with race, but not a sole proxy effect. For example, Asians had higher property damage claims, but their CBIS were similar to the overall distribution i.e., CBIS were not proxies for being Asian.
3. Testing the effect of including race as a control variable, which attempts to remove the impact from the model. The FTC found that controlling for race, ethnicity and income reduced the magnitude of the effect of CBIS on predicted risk but did not eliminate it.

Beginning in 2020, discussions around proxy discrimination have centered on the issue of intent. Proxy discrimination has been used in various arenas, from judicial to regulatory to consumer advocacy groups with very different implications. Since various stakeholders use proxy discrimination, we will discuss that here, without adjudicating what its legal definition should be. Instead, we will contrast the definitions provided by various organizations, understanding that the courts and regulators will decide ultimately whether those definitions are relevant or valid or both. Some stakeholders assert that intent is a necessary condition for proxy discrimination to exist. Evidence of this comes from the *McWright v. Alexander* decision that defines proxy discrimination in this way: "Proxy discrimination is a form of facial discrimination. It arises when the defendant enacts a law or policy that treats individuals differently on the basis of seemingly neutral criteria that are so closely associated with the disfavored group that discrimination on the basis of such criteria is, constructively, facial discrimination against the disfavored group. For example, discriminating against individuals with gray hair is a proxy for age discrimination because 'the fit' between age and gray hair is sufficiently close."[§] Clearly this definition requires intent. However, other stakeholders view proxy discrimination as a term that can be defined to include unintentional acts, where an insurer could unwittingly create disproportionate impact amongst protected classes. This disparity in definitions creates significant differences in the impact on actuarial work. If intent is required, the question of how to prove intent becomes germane. Clearly, if incontrovertible evidence existed showing that an insurer knowingly used a variable to substitute for race, that would meet the standard for proxy discrimination. However, without clear proof, intent would be difficult to infer. If intent is not required to define proxy discrimination, the focus becomes more on whether disproportionate impact exists from variables that are only predictive because of their relationship to protected class.

The National Council of Insurance Legislators (NCOIL) defined proxy discrimination to require intent in its April 2021 draft definition.[10] The National Association of Insurance Commissioners (NAIC) has yet (as of 2021) to formally define proxy discrimination, but its Principles on Artificial Intelligence include the desire to avoid "unintended consequences" in considering proxy discrimination.[11] The Center for Economic Justice (CEJ), a consumer advocacy group, in its June 2020 call to insurers and insurance regulators, discussed proxy discrimination in the context of

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§ *Pacific Shores Properties, LLC v. City of Newport Beach*, 730 F.3d 1142 (9th Cir. 2013), p32, n23, http://cdn.ca9.uscourts.gov/datastore/opinions/2013/09/20/11-55460.pdf.

both unintentional and intentional consequences.[12] At that time, the CEJ also defined proxy discrimination to be equivalent to disparate impact (the definition of which we will define in section 4). In 2021 comments to the NAIC's Special Committee on Race and Insurance, the CEJ evolved the definition to be "unnecessary, disproportionate outcomes" to protected classes.[13] To illustrate this definition, the CEJ used an example of a variable that was predictive of risk, but whose predictive power was lost once race was used as a control variable. The American Property Casualty Insurance Association (APCIA), which "is the primary trade association for home, auto and business insurers" uses the definition of proxy discrimination that relies on *McWright v. Alexander* i.e., requires intent. Specifically, the APCIA links proxy discrimination to "proxy theory," in which an offender would seek to cover the intentional discrimination against a protected class by using proxies.[14]

Figure 3. Proxy Discrimination Definitions by Organization

Organization	Definition	Similar Terms	Intent?
FTC	Whether an included variable acts in whole or in part as a statistical proxy for excluded variables	Omitted Variable Bias	Unclear
NAIC	AI actors should…avoid proxy discrimination against protected classes. AI systems should…avoid harmful or unintended consequences.		No
NCOIL	Intentional substitution of a neutral factor of a factor based on color, creed… for the purpose of discriminating against a consumer	Type of Unfair Discrimination	Yes
CEJ	Use of a non-prohibited factor that in whole or in part to a significant correlation with a protected class characteristic, causes unnecessary, disproportionate outcomes based on prohibited class membership	Disproportionate outcome	No
APCIA	"Proxy theory" was adopted by the courts as an element of disparate treatment discrimination to recognize a policy should not be allowed to use a technically neutral classification as a proxy to evade Title VII's prohibition against intentional discrimination	Type of Disparate Treatment	Yes

An example of proxy discrimination in insurance is redlining. Redlining was a practice that began in 1934, where the Home Owners' Loan Corporation (HOLC) categorized properties and neighborhoods according to their desirability. Properties were categorized by color (green, blue, yellow and red) in order of decreasing desirability. The Federal Housing Administration (FHA) used an underwriting manual to determine whether mortgages are eligible for insurance under Title II of the National Housing Act." The FHA adopted the HOLC ratings and used them in their underwriting manual.[15] The underwriting manual reveals that ratings were based on multiple characteristics which did not directly include race as a rating variable, but nevertheless created the opportunity for intentional and unintentional proxy discrimination.

Figure 4. FHA Underwriting Manual Rating Categories (from 1934 manual)

Organization	Description
Rating of Mortgage Pattern	Loan specifics e.g. loan to value, loan term
Rating of Property	Characteristics of the property e.g. age of home, lot dimensions
Rating of Location	Desirability of location e.g. "Protection from Adverse Influences", Relative Economic Stability
Rating of Borrower	Details of the mortgagee e.g. social and economic characteristics, moral character

Figure 4 shows the categories of rating variables used to determine eligibility for insurance for a home loan. An FHA underwriter could rate several components from 1–5, with each component given a weight. The final score would then determine the overall rating. The underwriter could also directly reject an applicant on any individual component, regardless of how well they scored elsewhere. Proxy discrimination could have occurred both intentionally and unintentionally with the historical policy, as a result. For example, if an underwriter determined that smaller lot sizes were less desirable, they could reject all applicants with lot sizes under a certain square footage. Since minorities tended to own small lots, that underwriter could have inadvertently biased Black and minority borrowers, which would be what some parties call unintentional proxy discrimination. However, the underwriter was also required to consider components such as moral character, where it was possible to deliberately proxy for race. More directly, the FHA considered "protection from adverse influences," which included preventing "inharmonious racial groups." The manual also states "If a neighborhood is to retain stability, it is necessary that properties shall continue to be occupied by the same social and racial classes. A change in social or racial occupancy generally contributes to instability and a decline in values." This suggests redlining was an example of intentional proxy discrimination since the FHA did not directly include race as a factor, but its underwriting manual explicitly linked outcomes with racial differences.

Until the regulatory community settles on the question of intent in proxy discrimination, the impact on actuarial work will remain unclear. If proxy discrimination is defined to include unintentional discrimination, several clarifications would need to be addressed. For example, are proxies defined to be variables with 100% correlation to protected class, or would partial correlation also be problematic? How would multicollinearity (as in the auto insurance example where a minority group skews younger, which creates a disproportionate impact based on age since younger drivers have higher rates) be treated? Would elimination of one of the variables be adequate, or would all variables with an individual relationship require elimination? The open questions on proxy discrimination mean we have to be prepared to respond to and comply with regulations that could include removing unintentional proxy effects.

4. Disparate Treatment and Disparate Impact in Insurance

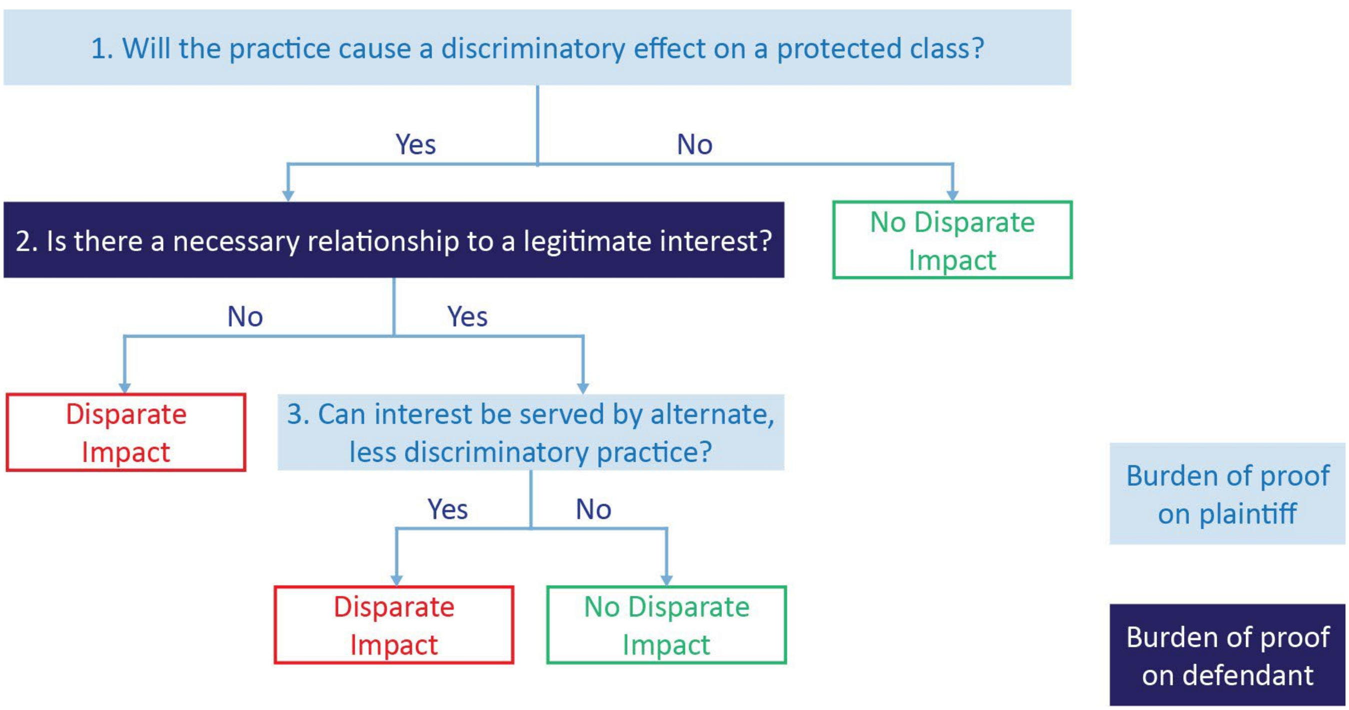
Disparate impact has been receiving increased attention recently in the insurance community. Despite its recent popularity, the term has actually been used in judicial rulings for a while. Disparate impact was first used to describe an employment discrimination case in 1971,[**] and since then, the concept has been applied to several industries, including insurance. Disparate impact (also called adverse effect) is the unintentional effect on protected classes, based on a facially neutral practice. Disparate impact has a specific legal meaning, with three prongs that must be met:[16]

i. The plaintiff must prove that a certain practice either causes or will predictably cause a discriminatory effect on protected classes.

ii. If i. is met, then the defendant must show that the practice has a necessary and evident relationship to one or more of its legitimate nondiscriminatory interests.

iii. If the defendant is able to show legitimate interest, the plaintiff can still prove disparate impact by showing evidence that the same interest could be served by another practice not having the discriminatory effect.

Figure 5. Process for Determining Disparate Impact



[**] *Griggs v. Duke Power*, in which Duke Power required a high school diploma and a series of tests for employment in higher paying divisions of the company. Since those tests were found to be unnecessary for the jobs they related to, and Black people were 10 times less likely to qualify under these standards, the Supreme Court ruled the policy violated the Civil Rights Act. https://supreme.justia.com/cases/federal/us/401/424/

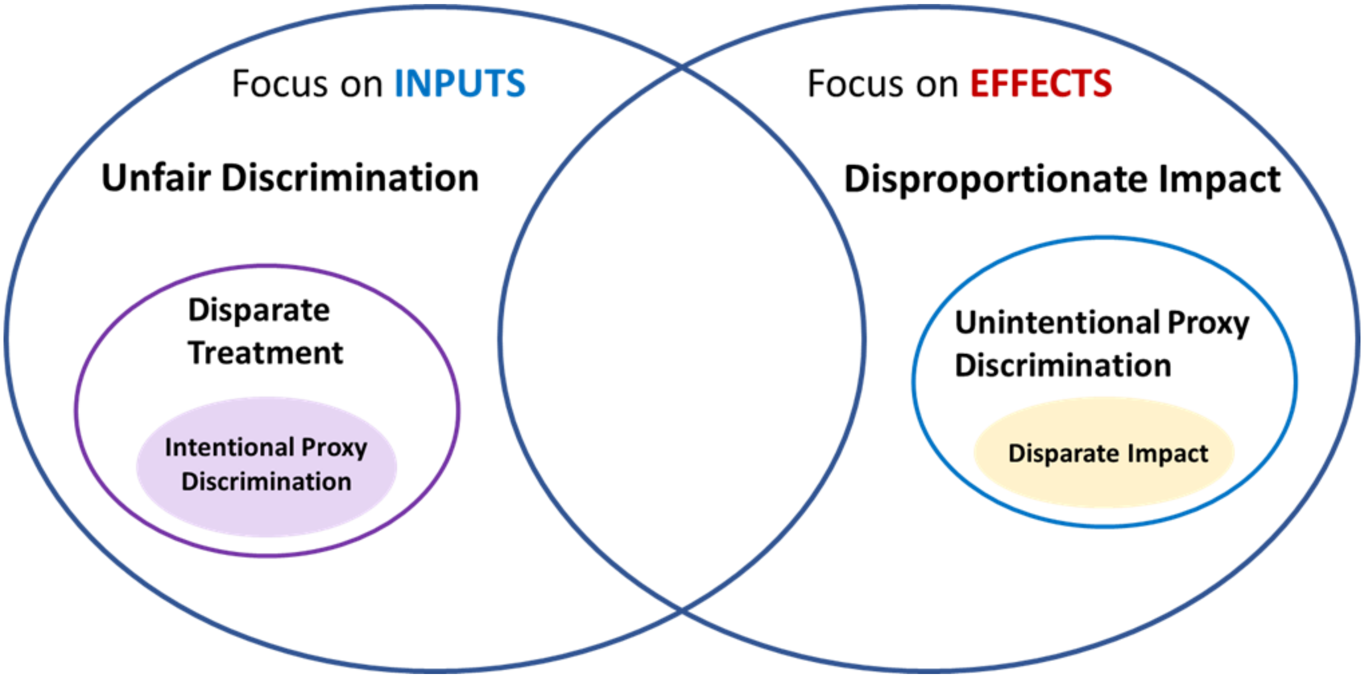
In insurance, disparate impact is used to describe situations in which an insurance company uses variables that are facially neutral but end up unintentionally impacting protected classes in a negative way (e.g., charging more). No insurer has specifically been found in violation of the disparate impact rule, although many consumer groups and regulators assert its existence in insurance.

Credit-based insurance scores (CBIS) are a hot button issue in the disparate impact debate for personal auto insurance. Some consumer groups argue that using CBIS to determine rates produces a disproportionate effect on minority groups and should therefore be prohibited. Insurers use CBIS because of their strong correlation with accident frequency. The aforementioned 2007 study by the Federal Reserve revealed that there is a correlation between race and CBIS, but also "There is no compelling evidence, however, that any particular demographic group has experienced markedly greater changes in credit availability or affordability than other groups due to credit scoring."[17] Individual states have adjudicated the issue of CBIS differently, with some states (e.g., California, Hawaii and Massachusetts) prohibiting the use of CBIS, while others permit it. Homeowner's insurance uses home age and value for rating. Some consumer groups have alleged that both have a strong correlation to race, which then could introduce disparate impact. This issue has not yet been adjudicated in court.

Disparate treatment, while sounding similar, is quite different from disparate impact. Disparate treatment is the intentional treatment of protected classes less favorably because of the protected trait. It is typically used in employment, disability rehabilitation and ERISA (Employee Retirement Income Security Act) benefits contexts, where companies are sometimes accused of discriminating against employees of a protected class. In the insurance context, disparate treatment would involve the deliberate use of variables that would discriminate against a protected class. This would make proxy discrimination (if defined to be intentional) a subset of disparate treatment.

5. How Definitions Compare and Contrast

Figure 6. Comparing and Contrasting Definitions



The relationship between the various discrimination terms is shown in the Venn diagram of Figure 6. The following are illustrative examples to compare the terms.

- **Unfair Discrimination without Disproportionate Impact.** As previously defined, unfair discrimination occurs when rating variables that have no relationship to expected loss are used. A hypothetical example could be if an insurer decided to use rating factors that charged those with red cars higher rates, even if the data did not show this. In this case, there would be no disproportionate impact, assuming protected classes do not own a large majority of red cars.
- **Disparate Treatment.** Disparate treatment and unfair discrimination are not directly related if we use the Fair Trade Act definition of unfair discrimination. However, in states where rating on protected class is defined to be unfair discrimination, disparate treatment would be a subset of unfair discrimination. In such cases, an insurer would explicitly use protected class to charge higher rates, with the intention of prejudicing against that class.
- **Intentional Proxy Discrimination.** If proxy discrimination is defined to require intent, it would be a subset of disparate treatment, whereby an insurer would deliberately substitute a facially neutral variable for protected class for the purpose of discrimination. Redlining is an example of this type of discrimination, given the use of location characteristics as proxies for race and social class.
- **Disproportionate Impact.** Disproportionate impact focuses on effect on protected class, even if there is a relationship to expected loss. An example of this is the one mentioned in

the AAA study, whereby a rating plan that uses age could disproportionately impact a minority group if those in that minority group tend to have higher risk ages. This disproportionate impact is not necessarily the same as proxy discrimination, since it is likely that even after controlling for minority status, age would have a relationship to expected costs.

- **Unintentional Proxy Discrimination.** If proxy discrimination is defined to be unintentional, the focus is more on disproportionate outcomes and the variables used to substitute for protected class. Several variables are being investigated by regulators to potentially be proxy discrimination and include criminal history for auto insurance rating. In order to prove proxy discrimination, an analysis would have to be performed to understand the extent to which criminal history proxies for minority status, and whether its predictive power would decrease when controlling for protected class. It is important to note once again that terms like "unintentional proxy discrimination" may be subsumed by "disparate impact," but they are included in this paper to show how various stakeholders use the term differently.
- **Disparate Impact.** Disparate impact is unintentional discrimination, where there is disproportionate impact, but also other legal requirements, such as the existence of alternatives. To date, no disparate impact lawsuits against insurance companies have been won. An example of potential disparate impact (although it was not litigated as a lawsuit) is from health care. Optum used an algorithm to identify and allocate additional care to patients with complex healthcare needs. The algorithm was designed to create a risk score for each patient during the enrollment period. Patients above the 97th percentile were automatically enrolled in the program and thus allocated additional care. Upon an independent peer review of the model, researchers found that the model was in fact allocating artificially lower scores to Black patients, even though the model did not use race. The reason behind this was the model's use of prior healthcare costs as an input. Black patients typically spend less than white patients on health care, which artificially allocated better health to Black patients.[18]
- **Unfair Discrimination and Disproportionate Impact.** In this case, an insurer would use a variable that both has no relationship to expected loss, but also has an outsized effect on protected classes. An example of this could be the same red car case above, but where protected classes also owned almost all the red cars. In this case, higher rates would create a disproportionate effect on protected classes, while also having no relationship to expected loss.

6. The Way Forward

Many regulatory bodies, including the NAIC,[19] NCOIL[20] and Federal Insurance Office (FIO)[21] have created committees to address race in insurance. These committees are addressing various issues that are shown in Figure 7.

Figure 7. Regulatory Bodies' Committees Addressing Race and Insurance Issues

	NAIC	NCOIL	FIO
Committee	**Special Committee on Race and Insurance**	**Special Committee on Race and Insurance Underwriting**	**Federal Advisory Committee on Insurance (FACI)**
Purpose	•Examine and determine which practices or barriers exist in the insurance sector that potentially disadvantage people of color and slash or historically underrepresented groups in property and casualty lines of business •Make recommendations on action steps	The committee is charged with: •Taking testimony, discussing and defining the term quote proxy discrimination End Quote •Discussing the wisdom of certain rating factors being used in insurance underwriting, such as zip code and level of education	Provide recommendations to the Federal Insurance Office (FIO)
Activities	Developing analytical and regulatory teal tools to assist state insurance regulators in determining unfair discrimination, including issues relating to: •The use of socioeconomic variables •Identifying proxy variables for race •Correlation vs. Causation •Desperate impact considerations •Use of third-party data •Appropriateness of data such as criminal history	•Resolution regarding the use of certain rating factors •Resolution regarding the use of artificial intelligence in underwriting •Resolution regarding insurance score transparency	•FACI recommends at IO prioritize an update of its 2017 study of auto insurance affordability •ACI recommends FIO study the availability of residential property insurance
Source	NAIC	NCOIL	FIO (FACI)

In addition to these organizations, the individual states are continuously reviewing and adjusting the laws pertaining to discrimination. In 2021, Colorado's governor signed legislation requiring insurers to attest that their activities do not discriminate on the basis of race, sex, sexual orientation, or gender identity. In 2019 California proposed regulation that would ban the use of affinity group discounts in personal auto pricing. If such edicts become more common, actuaries will be required to perform analyses that investigate the relationships between rating variables and protected class. It may be particularly challenging for actuaries to determine causal relationships between variables, since actuarial models are only designed to determine correlation, and not causality. The gold standard in determining cause is through the use of randomized controlled tests, which would be impractical to perform in P&C insurance.

As outlined in this paper, defining discrimination in insurance is complex – not only conceptually, but also in the nuances of language. It is our hope that actuaries will henceforth acknowledge the importance of definition clarity when determining how to analyze these issues. Clear communication will allow us to be effective partners to our regulatory and consumer stakeholders in the discrimination debate. Over time, the definitions used to describe discrimination will be refined and adjusted, but the historical context and implications for actuarial work will help us be informed as we continue to be thoughtful advocates in eliminating discrimination in insurance.

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Research and education are vital to the success and evolution of the Casualty Actuarial Society (CAS), the actuarial profession, and the broader insurance industry. As the industry discourse on *potential bias in insurance pricing evolves, the CAS will continue to develop resources to support members and industry professionals and is open to collaborating with others. As the CAS pursues further research and educational opportunities and the development of new approaches to address these issues, we invite anyone interested in collaborating with the CAS on future research or educational sessions to reach out by emailing diversity@casact.org.*

Stay Informed

The definitions in this paper will likely evolve over time. For those who wish to follow insurance industry developments related to risk-based pricing, discrimination and disparate impact, organizations including the American Academy of Actuaries (https://www.actuary.org/), American Property Casualty Insurance Association (https://www.apci.org/), National Association of Mutual Insurance Companies (https://www.namic.org/), and the Insurance Information Institute (https://www.iii.org/) offer resources to their members such as legislative and regulatory trackers, research and analysis, and news on insurance industry developments.

Endnotes

[1] Civil Rights Act of 1866, https://loveman.sdsu.edu/docs/1866FirstCivilRightsAct.pdf.

[2] Protected Classes, https://subscriptlaw.com/protected-classes/.

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[4] Unfair Discrimination, 1946 Model Act, 1946 *Proceedings of the National Association of Insurance Commissioners*, p. 398, https://naic.soutronglobal.net/Portal/DownloadImageFile.ashx?fieldValueId=4893.

[5] 1947 Unfair Trade Practices Act discussion, 1947 *Proceedings of the NAIC*, pp. 383, 392-400, 413, https://naic.soutronglobal.net/Portal/DownloadImageFile.ashx?fieldValueId=4927.

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