



Addressing Systemic Racism in Insurance

Presentation to the NAIC Committee on Race and Insurance

Workstream 4: Life Insurance and Annuities

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Birny Birnbaum
Center for Economic Justice

The Center for Economic Justice

CEJ is a non-profit consumer advocacy organization dedicated to representing the interests of low-income and minority consumers as a class on economic justice issues. Most of our work is before administrative agencies on insurance, financial services and utility issues.

On the Web: www.cej-online.org

About Birny Birnbaum

Birny Birnbaum is the Director of the Center for Economic Justice, a non-profit organization whose mission is to advocate on behalf of low-income consumers on issues of availability, affordability, accessibility of basic goods and services, such as utilities, credit and insurance.

Birny, an economist and former insurance regulator, has worked on racial justice issues for 30 years. He performed the first insurance redlining studies in Texas in 1991 and since then has conducted numerous studies and analyses of racial bias in insurance for consumer and public organizations. He has served for many years as a designated Consumer Representative at the National Association of Insurance Commissioners and is a member of the U.S. Department of Treasury's Federal Advisory Committee on Insurance, where he co-chairs the subcommittee on insurance availability. Birny is also a member of the U.S. Federal Reserve Board's Insurance Policy Advisory Committee.

Birny served as Associate Commissioner for Policy and Research and the Chief Economist at the Texas Department of Insurance. At the Department, Birny developed and implemented a robust data collection program for market monitoring and surveillance.

Birny was educated at Bowdoin College and the Massachusetts Institute of Technology. He holds Master's Degrees from MIT in Management and in Urban Planning with concentrations in finance and applied economics. He holds the AMCM certification.

Why CEJ Works on Insurance Issues

Insurance Products Are Financial Security Tools Essential for Individual and Community Economic Development:

CEJ works to ensure ***fair access*** and ***fair treatment*** for insurance consumers, particularly for low- and moderate-income consumers.

Insurance is the Primary Institution to Promote Loss Prevention and Mitigation, Resiliency and Sustainability:

CEJ works to ensure insurance institutions maximize their role in efforts to reduce loss of life and property from catastrophic events and to ***promote resiliency and sustainability*** of individuals, businesses and communities.

Fair and Unfair Discrimination in Insurance

Provisions regarding unfair discrimination are generally found in two parts of insurance statutes: rating and unfair trade practices.

For life insurance, we look to the UTPAs and find two types of unfair discrimination:

- Actuarial – there must be an actuarial basis for distinction among groups of consumers; and
- Protected Classes – distinctions among groups defined by certain characteristics – race, religion, national origin – prohibited regardless of actuarial basis.

From the NAIC UTPA Section 4 G Unfair Discrimination

Actuarial Unfair Discrimination

(1) Making or permitting any unfair discrimination between individuals of the same class and equal expectation of life in the rates charged for any life insurance policy or annuity or in the dividends or other benefits payable thereon, or in any other of the terms and conditions of such policy.

Protected Class Unfair Discrimination

(6) Refusing to insure, refusing to continue to insure, or limiting the amount of coverage available to an individual because of the sex, marital status, race, religion or national origin of the individual;

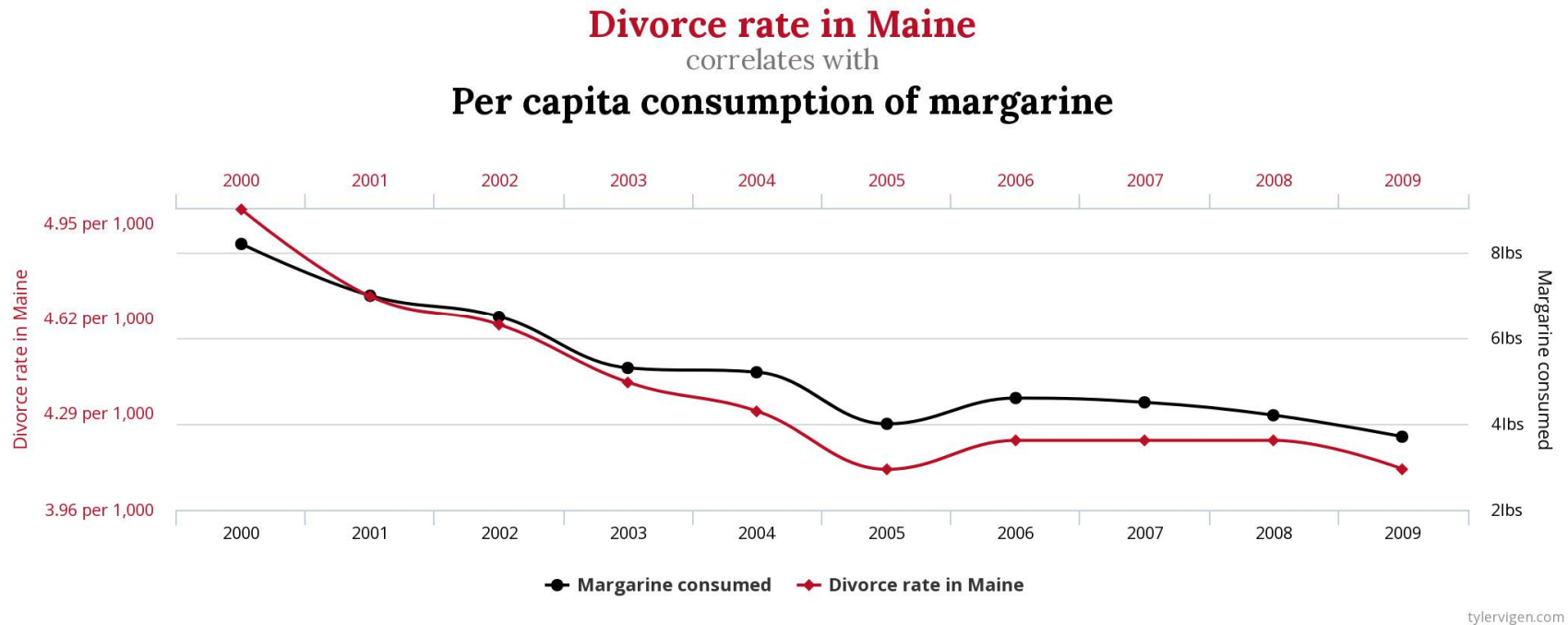
Section 4 G 6 has an interesting legislative history.

“When the drafters were considering the addition of language to Paragraph (5) [*the current (6)*] to refer to race, religion and national origin, there was extensive debate about whether to add similar language to Paragraphs (1) and (2). On one side were those who asserted that broadened nondiscrimination language would assure that discrimination would be dealt with effectively no matter how it might manifest itself. The responsive argument was advanced that discrimination was already dealt with effectively in the state rating law and that adding a provision to Paragraphs (1) and (2) would be redundant, unnecessary, and potentially would lead one to falsely conclude that the language was actually necessary for a state to deal effectively with discrimination on the basis of race, religion or national origin. 1992 Proc. IIA 150.”

“A consumer advocate raised the issue regarding the failure of the Unfair Trade Practices Act to specify race, religion and national origin in Section 4G(5). There was a general consensus that Paragraph (5) should be amended. 1992 Proc. IIA 149”

Correlation is Not the Standard for Fair Actuarial Discrimination

Statutes and actuarial standards don't refer to correlation, but demand a more robust relationship. Why? Here's an example of an almost perfect correlation – over 99%.



Why isn't a simple correlation relied upon or sufficient?

Because a predictive characteristic (or variable) may not be correlated in whole or in part to the outcome, but may also be correlated to other predictive variables.

Consider the difference between an outcome – say, mortality – and one predictive variable versus an outcome and multiple predictive variables.

Age to Mortality, Gender to Mortality, Tobacco Use to Mortality

Each of these represents a one-to-one – or univariate – relationship. But each predictive variable may be replicating part of another variable because of correlation between the predictive variables. Tobacco Use may be correlated with age or gender.

Eliminating Correlation among Predictive Variables: Multi-variate Analysis

The issue of correlation among predictive variables has become more important in life insurance as insurers have started to use new data and predictive variables.

Over the last 30 years, insurers and actuaries have developed new techniques to address the problems with univariate analysis.

Insurers use a variety of techniques to eliminate correlations among predictive variables in order to isolate each individual predictive variable's unique contribution to explaining the outcome.

How Does Multi-Variate Analysis Work?

Here's a simple illustration of a multivariate model. Let's create a simple model to predict the likelihood of an auto claim:

$$b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e = y$$

$X_1, X_2 + X_3$ are the predictive variables trying to predict y .

Say that $X_1, X_2 + X_3$ are age, gender and credit score and we are trying to predict y – mortality (or predicting the decision produced by traditional underwriting).

Let's assume that all three X s are statistically significant predictors of the likelihood of a claim and the b values are how much each X contributes to the explanation of claim. The b values can be tested for statistical significance – how reliable are these estimates of the contribution of each X ?

By analyzing these predictive variable simultaneously, the model removes the correlation among the predictive variables.

Use of Control Variables in Multivariate Insurance Models

Suppose an insurer want to control for certain factors that might distort the analysis? For example, an insurer developing a national pricing model would might want to control for different state effects like different age distributions, different occupation mixes, different frequencies of accidental accidents or differences in jurisprudence. An insurer would add one or more control variables.

$$b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4C_1 + e = y$$

C_1 is a control variable – let's say for State. By including State as a control variable, the correlation of the Xs to State is statistically removed and the new b values are now the contribution of the Xs, independent of their correlation to State, to explaining the likelihood of a claim. When the insurer deploys the model, it still only uses the X variables, but now with more accurate b values.

What is Systemic Racism and Inherent Bias?

“In the coming days, I encourage each of us to step outside of our comfort zones, seek to understand, engage in productive conversations and hold ourselves accountable for being part of the solution. We must forever stamp out racism and discrimination.” Those are the words of Kirt Walker, Chief Executive Officer of Nationwide.

Floyd’s death in Minneapolis is the latest example of “a broken society, fueled by a variety of factors but all connected by inherent bias and systemic racism. Society must take action on multiple levels and in new ways. It also requires people of privilege—white people—to stand up for and stand with our communities like we never have before,” Those are the words of Jack Salzwedel, the CEO of American Family.

Why Do State and Federal Laws Prohibit Discrimination on the Basis of Race?

Justice Kennedy for the Majority in the U.S. Supreme Court's 2015 *Inclusive Communities* Opinion upholding disparate impact as unfair discrimination under the Fair Housing Act.

Recognition of disparate-impact claims is also consistent with the central purpose of the FHA, which, like Title VII and the ADEA, was enacted to eradicate discriminatory practices within a sector of the Nation's economy.

Recognition of disparate-impact liability under the FHA plays an important role in uncovering discriminatory intent: it permits plaintiffs to counteract unconscious prejudices and disguised animus that escape easy classification as disparate treatment.

Why Are Race and Other Protected Class Characteristics Carved Out of Fair Actuarial Discrimination?

The existence of historical, intentional discrimination based on these characteristics – discrimination that violates state and federal constitutions. But, also, the recognition that the historical discrimination has long-lasting effects that disadvantage those groups. Stated differently, you can't enslave a population for two hundred years and then expect the legacy of that enslavement will disappear overnight.

We continue to see those legacies of historical discrimination – systemic racism -- today both directly and indirectly in policing and criminal justice, housing, and the impacts of the Covid-19 pandemic.

Insurance Not Immune to Systemic Racism

There are numerous examples of insurer practices that have a disproportionate impact on the basis of race throughout the insurers' operations – marketing, pricing, claims settlement, anti-fraud.

Examples of practices that have disparate racial impact include:

- Credit-based insurance scores
- Consumer lifetime value scores
- Criminal history scores
- Facial Analytics

The data used to develop these scores reflect historical discrimination in housing, credit, criminal justice or bias in modelers. The scores reflect and perpetuate historic discrimination.

Disparate Impact as Both a Standard and a Methodology

Let's go back to multi-variate model, but now use Race as a control variable:

$$b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4R_1 + e = y$$

R_1 is a control variable – by including race in the model development, the correlation of the X s to race is statistically removed and the new b values are now the contribution of the X s, independent of their correlation to race, to explaining the likelihood of a claim

What if X_1 is a perfect proxy for Race?

Then once we add the control variable for Race, X_1 no longer has any predictive value because all it was doing was predicting race, not the outcome y .

What if X_1 is both predictive of mortality and correlated to Race? Then, the model still shows X_1 's (now different) predictive value, but shorn of its correlation to Race, leaving the unique contribution of X_1 to explaining mortality.

Disparate Impact Analysis Improves Cost-Based Pricing

There is a long history and many approaches to identifying and minimizing disparate impact in employment, credit and insurance. But, the general principle is to identify and remove the correlations between the protected class characteristic and the predictive variables.

$$b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4R_1 + e = y$$

What if X_1 , X_2 and X_3 are not perfect proxies for Race, but still have high correlation? Then, the disparate impact analysis – and our simple model – removes that correlation and the remaining values for b_1 , b_2 and b_3 are the unique contributions of each predictive variable to explaining the outcome. The result is more – not less – accurate cost-based or risk-based analysis.

Why is it Reasonable and Necessary to Recognize Disparate Impact as Unfair Discrimination in Insurance?

1. It makes no sense to permit insurers to do indirectly what they are prohibited from doing directly. If we don't want insurers to discriminate on the basis of race, why would we ignore practices that have the same effect?
2. It improves risk-based and cost-based practices.
3. In an era of Big Data, systemic racism means that there are no “facially-neutral” factors. From Barocas and Selbst:

*Advocates of algorithmic techniques like data mining argue that they eliminate human biases from the decision-making process. **But an algorithm is only as good as the data it works with.** Data mining can inherit the prejudices of prior decision-makers or reflect the widespread biases that persist in society at large. **Often, the “patterns” it discovers are simply preexisting societal patterns of inequality and exclusion. Unthinking reliance on data mining can deny members of vulnerable groups full participation in society.***

Why is it Reasonable and Necessary to Require Insurers to Test for and Minimize Disparate Impact?

Insurer practices and algorithms do not necessarily use expected claims as the outcome variable. Sometimes the desired outcome is based on non-cost factors and these non-cost factors has disproportionate impact on communities of color.

In 2005, then CEO of Allstate, Ed Liddy told investment analysts about how credit scoring was helping Allstate avoid the wrong customers:¹

Tiered pricing helps us attract higher lifetime value customers who buy more products and stay with us for a longer period of time. That's Nirvana for an insurance company. That drives growth on both the top and bottom line.

This year, we've expanded from 7 basic price levels to 384 potential price levels in our auto business.

¹ Transcript of Presentation to Edward M. Liddy, Chairman and CEO, The Allstate Corporation Twenty-First Annual Strategic Decisions Conference, Sanford C. Bernstein & Co., June 2, 2005.

Tiered pricing has several very good, very positive effects on our business. It enables us to attract really high quality customers to our book of business.

The key, of course, is if 23% or 20% of the American public shops, some will shop every six months in order to save a buck on a six-month auto policy. ***That's not exactly the kind of customer that we want.*** So, the key is to use our drawing mechanisms and our tiered pricing to find out of that 20% or 23%, to find those that are unhappy with their current carrier, are likely to stay with us longer, likely to buy multiple products and that's where tiered pricing and a good advertising campaign comes in.

These statements were made in the Stone Age of Big Data – 2005. Since then insurers' use of new, bigger and more granular personal consumer data has exploded.

Allstate CEO to Investment Analysts, May 2017²

The insurer's "universal consumer view" keeps track of information on 125 million households, or 300 million-plus people, Wilson said.

"When you call now they'll know you and know you in some ways that they will surprise you, and give them the ability to provide more value added, so we call it the trusted adviser initiative," said Wilson.

Progressives CEO to Investment Analysts, November, 2020³

[Analyst] Gary Ransom

Usually that just means your price is lowest on the comparative raters there. But is there more to it than that as well? Are they -- are you seeing more coming into the agents? Is there -- are there agents' incentives or other things going on there?

[CEO Tricia Griffith]

But, yes, we have -- we do incentives and we have different commissions based on the type of customer that we get in namely preferred.

² "Allstate CEO: Agents Will Have Access to Data on 125 Million Households," Best's New Service, May 30, 2017

³ <https://seekingalpha.com/article/4385047-progressive-corporation-pgr-ceo-tricia-griffith-on-q3-2020-results-earnings-call-transcript>

Practices That Raise Concerns About Proxy Discrimination on the Basis of Race

Price Optimization and Consumer Lifetime Value Scores

By definition, these algorithms used by insurers utilize non-cost factors to differentiate among consumers and the factors and data reflect bias against communities of color.

Credit-Based Insurance Scores

The consumer credit information factors used in CBIS are highly correlated with race. The Missouri Department of Insurance found that the single best predictor of the average CBIS in a ZIP Code was minority population.

Criminal History Scores

Here, the problem is not just the legacy of historical discrimination, but ongoing discrimination in policing and criminal justice.

What are the Benefits and Costs of Requiring Insurers to Test For and Minimize Disparate Impact?

If racial and economic justice are a priority, if cost-based insurer practices are a priority, if closing the protection gap and making insurance more affordable and available in traditionally underserved communities is a priority, then the benefits of requiring insurers to test for and minimize disparate impact far, far outweigh the costs.

While there are examples of disparate impact claims brought against insurers under the federal Fair Housing Act that have resulted in improved risk-based pricing and improved insurance availability in communities of color – e.g., challenges against underwriting based on age and value of the home – industry has not been able to cite a single example of a successful disparate impact claim that has harmed risk-based pricing.

Why is it Reasonable and Necessary to Test for and Minimize Disparate Impact in Every Aspect of Insurers' Operations?

Marketing – Today's Big Data algorithms and variety of marketing channels give insurers – like other businesses – the ability to micro-target consumers. This ability to micro-target gives insurers the ability to attract or discourage customers even before the pricing stage.

Claims Settlement and Anti-fraud – Just as insurers use non-cost factors for price optimization in rating, so do they use non-cost factors for claims optimization. Antifraud algorithms – including those use at underwriting for “propensity for fraud” – are most vulnerable to racial bias. Historical bias in what claims to examine for fraud results in bias in the claims identified as fraudulent. Biased antifraud algorithms become self-fulfilling – if there is racial bias in the claims you identify as potential fraudulent and investigate, there will be racial bias in the claims identified as fraudulent. You can't find fraud in a claim you don't investigate.

What Actions Should the NAIC Committee on Race and Insurance Take regarding Life Insurance and Annuities?

Actions Common to All Lines of Business

1. Testing For and Minimizing Disparate Impact
 - a. Acknowledge disparate impact as unfair discrimination.
 - b. Develop guidance and safe harbors for insurers on methods and tools to test for and minimize disparate impact within the cost-based framework of insurance and to publicly report the results of these efforts.
 - c. Require insurers to test for and minimize disparate impact for all aspects of their operations – marketing, underwriting, pricing, claims settlement, antifraud, investments.

Actions Common to All Lines of Business

2. Develop an Insurer Data Reporting Program Sufficiently Granular to Measure Performance Serving Different Communities.
 - a. For life insurance, annuities and long-term care, such reporting would include application and sales transaction data with geographic information to permit analysis of sales by product by community. With data at a granular geographic level – census block or ZIP Code – racial characteristics can be appended for analysis of performance across communities and, specifically, in communities of color.

Actions Specific to Life Insurance, Annuities and LTC

3. Develop good-value products that meet the needs of underserved communities, including communities of color.
4. Extend to life insurance the same regulatory oversight and consumer protections for insurers' use of consumer credit and other types of non-traditional personal consumer information. For example, the consumer protections in state insurance credit scoring laws for property casualty personal lines should cover the use of consumer credit in life insurance. Filing and regulatory review of accelerated underwriting algorithms should be required, just as pricing algorithms are filed for property casualty personal lines.

Discussion of CEJ Recommendations

The meeting materials identify three issues:

- Access to life insurance products focusing on education and distribution/marketing.
- Disparities in underwriting/rating focusing on what the disparities are and what factors cause the disparities.
- Disparities in cancellations/rescissions focusing on what the disparities are and what factors cause the disparities.

While these are important issues, together they don't represent a holistic approach or framework to identify and address systemic racism in life insurance. The list also doesn't identify any concrete actions for insurers or regulators.

By definition, systemic racism is bias that pervades virtually all spheres of society and, in the case of life insurance, may impact any aspect of a life insurers' operations – not just sales, but also marketing, claims settlement, antifraud and investments. While there are some glaring candidates for likely racial bias – practices cited above – we shouldn't guess at which practices, but should test all major operations for disparate impact.

Discussion (continued)

Insurer testing for racial bias should be integral to the development of insurer algorithms, policies and practices. This is the requirement for lenders and that example is particularly relevant for life insurance.

The ACLI points out that life insurance differs from property casualty persona lines products because the life insurer gets one shot to underwrite and price accurately for a commitment that may last decades. This is the same for mortgage lenders – one shot to underwrite and price accurately for a 30 year mortgage. Yet, mortgage lenders make the analysis of racial impact a core feature of their risk and underwriting models and have for decades. And mortgage lenders report individual application and sales data to federal agencies – Home Mortgage Disclosure Act data – that is published for lenders, academics, fair housing groups and other stakeholders to analyze and evaluate.

If you don't measure it, you can't identify or fix the problem. We suggest that the second and third issues regarding disparities better addressed – along with other relevant disparities – in our suggested actions 1, 2 and 4.

Discussion (continued)

The first issue – access focusing on education and distribution – identifies the critical issues of availability and affordability (“access”) and how products are marketed and distributed. Again, no concrete action is identified. In addition, we suggest that the issue wrongly focuses on the consumer as the problem (“education”). Our suggested actions 3 (develop good value products that meet the needs of communities of color) and 2 (collect, report and analyze data on sales by products by geographic area) provide concrete actions to both identify and fill product and sales gaps that disadvantage communities of color.

Conclusion

We don't seek to punish insurers, but to engage insurers in efforts to identify and minimize systemic racism in insurance. We don't claim that insurers are looking for ways to indirectly discriminate against communities of color. Rather, it's about getting insurers to examine their practices for unintentional discrimination and to change those practices within the risk-based framework of insurance. Disparate impact analysis improves, not harms, risk-based practices. The goal is not to eliminate rating factors, but to eliminate the unneeded racial impact of those factors.

I began by talking about why CEJ works on insurance issues – because insurance is a fundamental economic development and resiliency tool for individuals, businesses and communities. Just as lenders and employers are required to test for unintentional discrimination on the basis of race, so should such testing be part of the DNA of insurers.