

UNDERWRITING

Today & Tomorrow

WAHLU 2019 Spring Seminar

Hank George, FALU

A Timely Bit of Our History

- Over 80 years ago, chief underwriters in smaller companies split from the Eastern mutual-dominated HOLUA to create the IHOU.
- IHOU founders chose **company-based membership** (i.e., became a trade association) for a very good reason.
- When the HOLUA and IHOU merged to form the AHOU, our founders chose **individual membership** also for a very good reason.

Those who either do not know or forget history may make huge mistakes...

New York Department of Financial Services 1/18 letter to companies licensed in that state

- What are the key elements?
- What happens next?
- How could this all sort out?

2 Components of Unfair Discrimination

- **DISPARATE TREATMENT**: differential treatment on the basis of membership in a protected class that disadvantages members of that class (example: rating based on race)
- **DISPARATE IMPACT**: treatment on the basis of inadequately justified factors, not including membership in a protected class per se, that nevertheless disadvantages members of a protected class (example: rating based on Zip code)

- MIB, MVR, criminal history, Rx records and conventional medical underwriting all got a “free pass”
- Other existing or proposed underwriting resources must be shown by carrier users to be (1) actuarially sound and (2) free of significant disparate impact discrimination against protected classes
- In addition, “black box” algorithms must be fully transparent

Under the Microscope

- Geographical data (e.g. zip codes)
- Home ownership data, licensures
- Credit attributes
- Educational attainment
- Civil judgments, other court records (except criminal convictions)
- Retail purchase histories
- Social media content
- Internet or mobile activity; geographic tracking (GPS) data
- How applicant appears on a photograph (“selfies”)

Blue = dead in the water

Brown = jury still out

“Linda Lacewell...Governor Andrew Cuomo’s nominee to be the Department’s new Superintendent, has a strong prosecutorial background.

Don’t lose sight of what’s happening elsewhere, as the ripple effects of the circular letter undoubtedly will be felt throughout the country, including by insurers writing other types of insurance.”

Faegre, Baker and Daniels

New York Takes the lead on Insurers’ use of Big Data and Algorithms

January 23, 2019 Bulletin

5 Key Questions

- How tough will the DFS be on disparate impact discrimination if a resource has substantial protective value?
- Will the DFS ultimately prohibit some of these resources *per se*?
- Will other states do similar investigations or follow NY without doing their own review?
- If yes, which states are most likely to do so?
- Is there a *tipping point* beyond which it will no longer be practical to use a resource?

Is it feasible to create an adequate “tobacco user” screening algorithm without incorporating components that constitute unfair discrimination (e.g., zip codes)?

So far, to the best of our knowledge, the answer is NO.

Arguments for using credit attributes in underwriting

Their proven protective value and...

“...all parties [insurers, regulators, consumers] generally agree that even if credit scores do produce disparate impact, that it isn’t the insurance companies’ intent. The goal is ultimately to assess risk...credit histories...fairly readily comport with common notions of ‘fairness’”

Ray Lehman

Insurance Journal.com

March 27, 2018

Arguments for not using credit attributes in underwriting

- Disparate impact discrimination based on race and socioeconomic status (SES) being akin to Zip codes (redlining)
- Unfair discrimination based on massive debt due to catastrophic medical expenses

“Our current credit-scoring systems have a disparate impact on people and communities of color. These systems are rooted in our long history of housing discrimination and the dual credit market that resulted from it.”

Lisa Rice

“Discriminatory Effects of Credit Scoring on Communities of Color”

Suffolk University Law Review

46(2013):935

- 66.5% of bankruptcy filings are due at least in part to medical expenses.
- 65% of debtors cite a medical contribution to their bankruptcy prior to Obama Care as compared to 67.5% three years after its implementation.
- 530,000 families are financially ruined each year by medical bills.
- Among breast cancer patients suffering “financial toxicity,” African Americans and Hispanic Americans were 3.35 times and 4.29 times more likely to lose their homes than Caucasian Americans, respectively.
many of these cases, the illness affects the applicant’s partner or offspring, and the applicant is otherwise readily insurable.

Himmelstein. American Journal of Public Health. E-published 2/16/19

Berneth. Journal of Applied Psychology. 92(2012):469

Genetic Testing and Use of Genetic Test Results in Underwriting

- UK and Australia have negotiated guidelines with regulators. *[O'Leary, Personal Communication]*
- Canada has banned both insurer genetic testing and genetic test result use in underwriting; this ban has been deemed unconstitutional by a Quebec court. Ottawa will almost certainly appeal. *[Vitagliano, personal communication]*
- We leave it to individual companies to determine their own practices. *[Grubbe, personal communication]*

“In the future, because of the relatively low underwriting benefit and high social cost it is quite likely that the United States will join the list of countries not permitting the use of genetic test results in underwriting life insurance. The only questions are when this more thoughtful approach will be adopted and whether it will be implemented voluntarily by the life insurance industry or imposed by government.”

Mark A Rothstein

Time to End the Use of Genetic Test Results in Life Insurance Underwriting

University of Louisville Institute for Bioethics; Louis D. Brandeis School of Law

Journal of Law, Medicine and Ethics

46,3(2018):794-801

BRCA 1 and 2

Germline Breast Cancer Gene Mutations

- Also risk factors for ovarian, pancreatic, prostatic and other carcinomas
- Prophylactic bilateral mastectomy/oophorectomy or intense surveillance
- Genetic counselors advise women to buy insurance before being tested.
- 23andMe DTC BRCA test misses subtypes accounting for vast major of carcinomas!
- 50% of insurers take adverse action in at least some BRCA 1 and 2 cases; the other 50% do not *[2018 Critical Issues in Underwriting Survey]*

Is there excess mortality based on marital status?

- Married (+ long-term cohabitation?)
- Separated
- Divorced
- Widowed
- Bachelor (never married)

Excess Mortality (vs. Married)

- UK, 75,000, ages 60-79: widowed (11%), divorced (22%), never wed (12%)¹
- Widowhood, metaanalysis (123 studies): increased mortality in women 15% and in men 27%²
- Cancer, 3.8 million, 10-year survival: married 57.5%, never wed 51.7%, divorced 45.6%, separated 36.8%³

¹Grundy. BMC Public Health. 10(2010):554

²Shor. Demography. 49(2012):575

³Sprehn. Cancer. 115(2009):5108

We cannot use marital status in underwriting

- \pm 50% involuntary – try to explain less favorable insurability status to someone whose spouse took off, leaving them with kids, a mortgage and 50%+ loss of income
- Separated/divorced may be due to spousal abuse
- Widowhood 100% involuntary...*except in subjects convicted of spousal homicide!*
- Unwed cohabitation is as favorable as married in some studies

Besides, New York doesn't allow it!

“Facial analytics technology that is able to estimate life expectancy from a selfie could be the future of life insurance underwriting, according to Global Data Financial Services”

www.lifeinsuranceinternational.com

11/26/17

Drivers of Skin Aging

- Germline genetics¹
- Ultraviolet light (UV) exposure – which is a cumulative process based on degree and duration of exposure^{1,2}
- Most prevalent UV high risk group = farmers
- In the ongoing Agricultural Health Study, farmers had 46% lower mortality than non-farmer controls³

¹ Leong. Facial and Plastic Surgery Clinics of North America. 16(2008):277

² Sitúm. Collegium Anthropologicum. 34, Supplement 2(2010):9

³ Waggoner. American Journal of Epidemiology. 173(2011):71

Facial imaging is inherently biased against those who do not have white skin.¹

Facial image features are highly predictive of sexual orientation, identifying gay men and women.²

¹ “What machines can tell from your face” The Economist 9/9/17

² Kosinski. Journal of Personality and Social Psychology. 114,2(2018):246

Screening criteria that might not lead to regulatory issue

- Average number of hours of sleep/night
- Pet ownership
- Coffee consumption
- Physical activity/sedentary lifestyle
- Hours/day of TV watching
- Life space in elderly

The Invasive Hoax

- “Invasive” must be defined differently in insurance than in medicine
- In insurance, “invasive” is that which jeopardizes the sale by encumbering the customer’s journey
- After 45 years, we have had no significant pushback on blood and urine tests. Hence, they are not “invasive” in an insurance context
- There already is and will be more **MAJOR** pushback from millennials and post-millennials over predictive analytics seen as intrusive, compromising privacy and therefore **INVASIVE** with regard to customers perceptions!

What is the logical next step to improve the customer's journey in the elder market?

1. Eliminate all cognitive and physical function screening

2. Replace it with cystatin C and NT-proBNP

Accelerated Underwriting

Rapid Access Screening Assets

- Teleinterview/online interview
- MIB
- MVR
- Pharmacy Records
- Electronic Profile
- LabPiQture™ (formerly QuestCheck)

Accelerated Underwriting: Age Groups and Reality

- 18-40 – Sky's the limit
- 41-59 – Progressively decreasing % eligible
- ≥ 60 – Window dressing

Congratulations!

This is a 63 year old guy you approved Accelerated Preferred

- ✓ Eager FIRST TIME insurance buyer, he called the producer!
- ✓ Reported no significant medical history on teleinterview
- ✓ Had DTC 60-test lab profile, coronary calcium scan and genomic testing; disclosed none of this to his MD or you
- ✓ Severe *attack* of smoker's amnesia during teleinterview
- ✓ Quit drinking when wife threatened to leave (again)
- ✓ Takes 9 medications, all mail order from Manitoba
- ✓ Restricted life space; aggregate driving exposure is 200 miles/year (52 times to casino and back home)

EPILOGUE

What are the 2 things we need to do ASAP to minimize the adverse impact of artificial intelligence on our profession?

**1. Awaken from our pervasively
ambivalent state**

**1. Aggressively promote awareness of
the critical importance of what we do
to insurers' bottom lines**

THANK YOU

Live Long & Prosper!