



## 44 - IDEC Update

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# 2019 Valuation Actuary Symposium

**CARL DESROCHERS, IDEC CHAIR**  
Guardian Life Insurance Company of America

**MAGGIE CORMIER, IDEC MEMBER**  
Standard Insurance

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**SOCIETY OF  
ACTUARIES®**



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- **Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- **Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- **Do** leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- **Do** alert SOA staff and/or legal counsel to any concerning discussions
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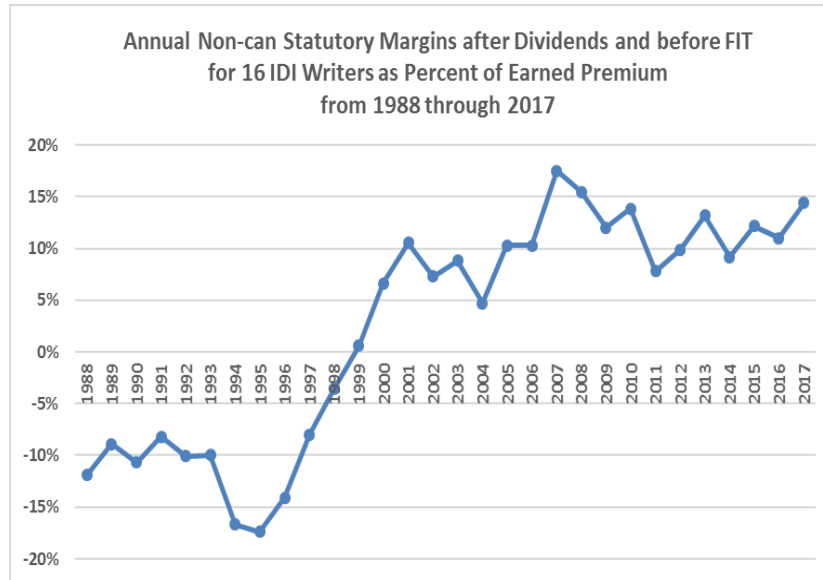
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# Background

- The 2013 IDIVT modeled claim incidence and termination rate experience from 1990 to 2006, based on the study performed by the Individual Disability Experience Committee (IDEC)
- IDEC resumed activities in 2015 and requested experience data covering 2005 – 2015
  - Analysis of the data resulted in the committee dropping 2005 and 2015 due to incomplete data years.
- A report on incidence should be published in 2019 and a report on termination will follow in either late 2019 or early 2020
- The new IDEC study will not only update the industry IDI experience; it will provide insights that we have not had yet from the additional field requested

# What do we know about IDI experience over the last 10 years or so?



- The annual Noncan DI Profitability Study has observed profitability trends
- IDI profitability is closely linked to the claims experience
- The improvement in profitability from 1990 – 2006 is documented in the 2013 IDEC report which illustrates that profitability was impacted by a downward trend in claims incidence (favorable) which was partly offset by a downward trend in claims termination (unfavorable)

# What do we know about IDI experience over the last 10 years or so?

Overall, a reasonable expectation is that the new IDEC study will show incidence experience during the 2005 to 2015 period that is at least as favorable as the 2013 IDIVT.

# IDI Claim Incidence Trend Analysis

## Methodology:

- Measured Actual-to-Expected (A/E) claim incidence ratios where Expected = 2013 IDIVT base incidence rates **WITH** incidence modifiers.
- Incidence Modifiers apply for:
  - Contract Type – Business Products use 67% of base table.
  - Smoker Type – About a 28% increase for smokers.
  - Benefit Duration – Lifetime has 20% higher incidence, Fixed/Limited BPs have 10% lower incidence.
  - Underwriting Type – ER sponsored plans have lower incidence based on funding method. 3% lower for voluntary and 43% lower for mandatory GSI.



# List of Contributing Companies

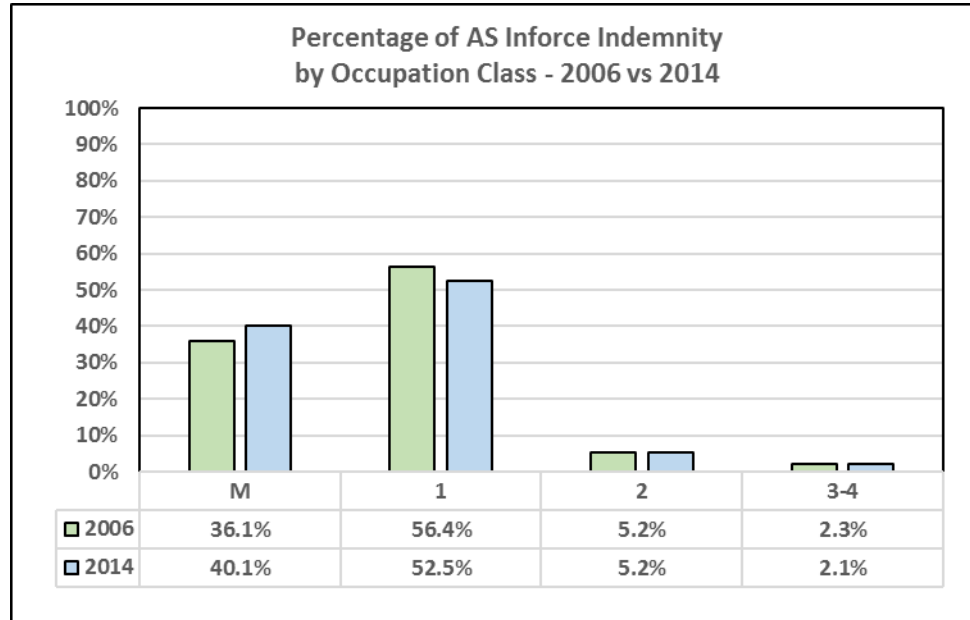
Contributors	1990 - 1999	2000 - 2006	2005 - 2015
Ameritas Life Insurance Corporation (Union Central)	X	X	X
Assurity Life Insurance Company			X
Berkshire Life Insurance Company of America	X	X	X
Guardian Life Insurance Company		X	X
Illinois Mutual Life Insurance Company	X	X	X
Massachusetts Casualty Insurance Company	X	X	
Massachusetts Mutual (including Connecticut Mutual)	X	X	X
Monarch Life Insurance Company (including Penn Mutual)	X	X	
Mutual of Omaha Insurance Company		X	
Northwestern Mutual Life Insurance Company	X	X	X
Paul Revere Life Insurance Company	X	X	X
Principal Financial Group	X	X	X
Provident Life & Accident Insurance Company	X	X	X
RiverSource Life Insurance Company		X	X
Standard Life Insurance Company		X	X
Trustmark Life Insurance Company	X		

# Exposure Trends



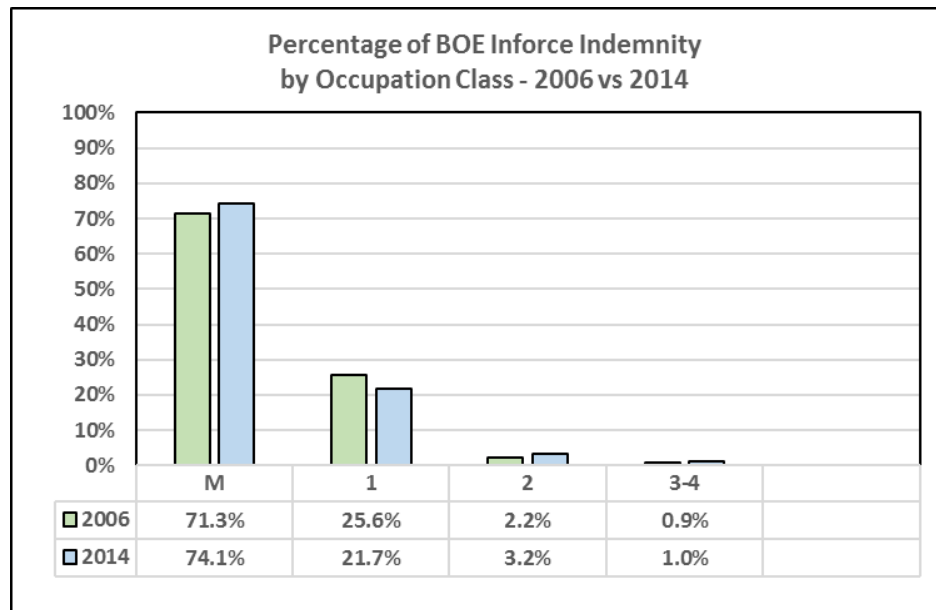
# Exposure Trend Analysis – AS by Occupation Class

- Occupation Class M & 1 represent over 92% of AS exposure by indemnity
- Occupation Class 1 is the largest class, but Occupation Class M has gained ground during the study period



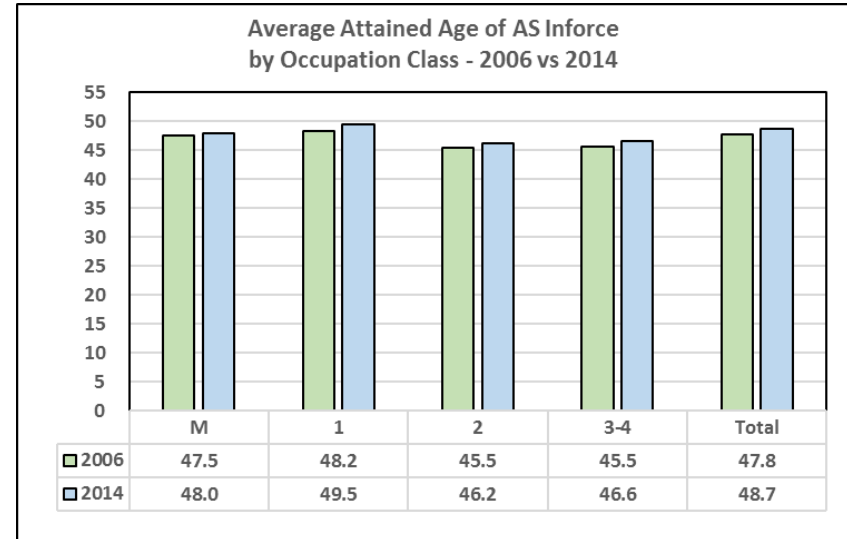
# Exposure Trend Analysis – BOE by Occupation Class

- Occupation Class M & 1 represent over 96% of BOE exposure by indemnity
- Occupation Class M is the largest class and grew in overall proportion during the study period



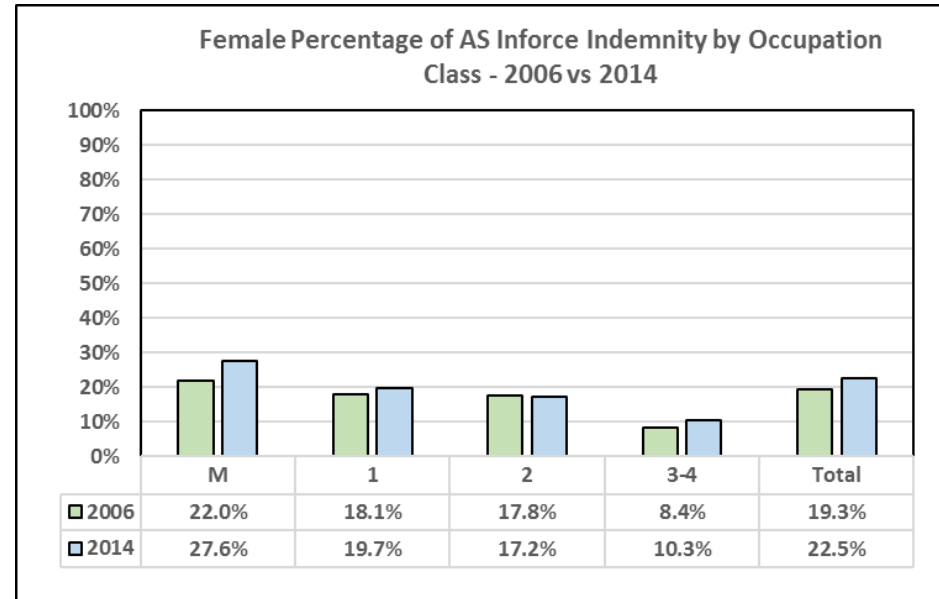
# Exposure Trend Analysis – AS Attained Age by Occupation Class

- The average attained age of the AS inforce remained relatively stable throughout the study, increasing from 47.8 in 2006 to 48.7 in 2014.
- The average age increased in all occupation classes.
- Occupation Class 1 has the oldest average attained age



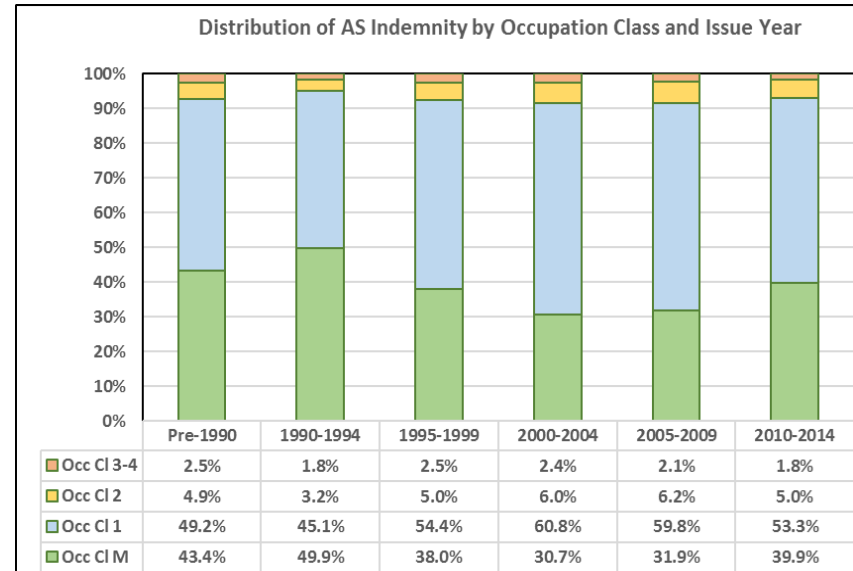
# Exposure Trend Analysis – AS Gender by Occupation Class

- The percentage of females increased from 19% in 2006 to 23% in 2014
- Occupation Class M has the largest share of females as well as the fastest growing share

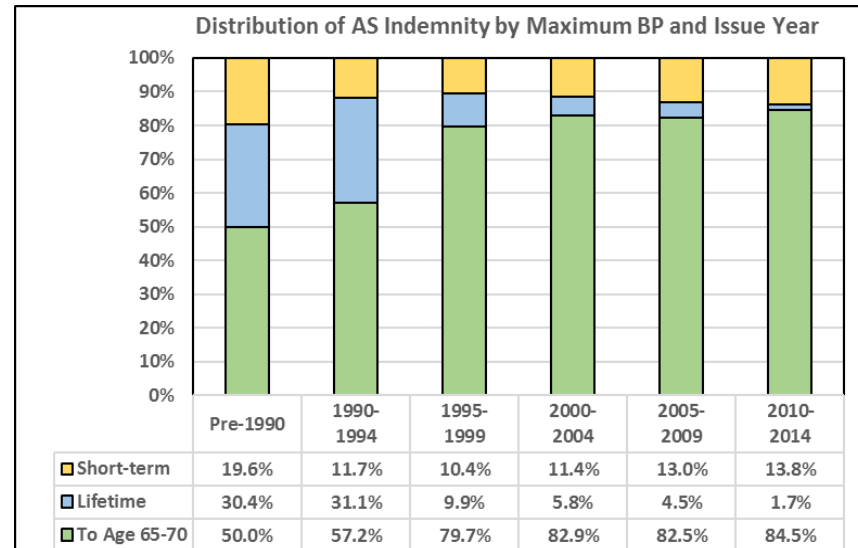
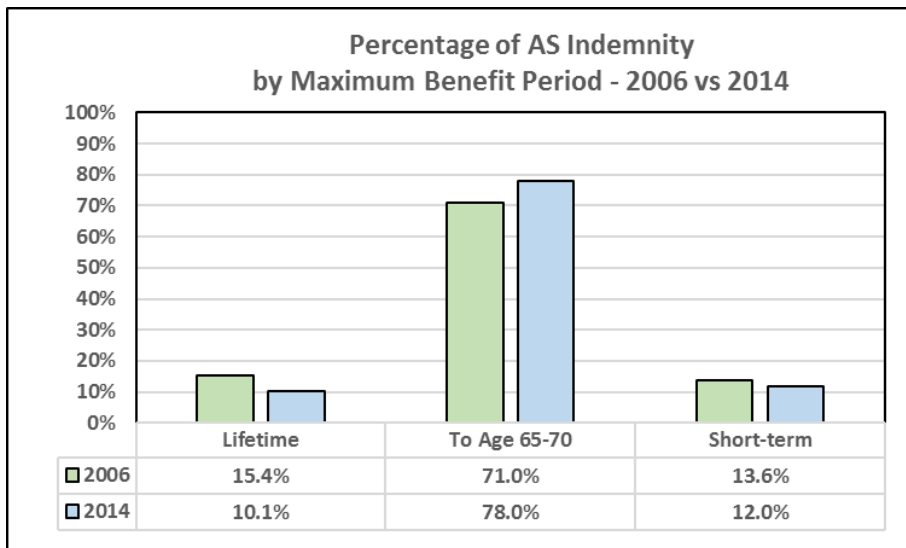


# Exposure Trend Analysis – AS by Occupation Class and Issue Year

- Occupation Class M sales slowed down dramatically in the mid-90s
- Since 2005, the percentage of New Business issued to Occupation Class M has been increasing steadily



# Exposure Trend Analysis – AS by Benefit Period and Issue Year

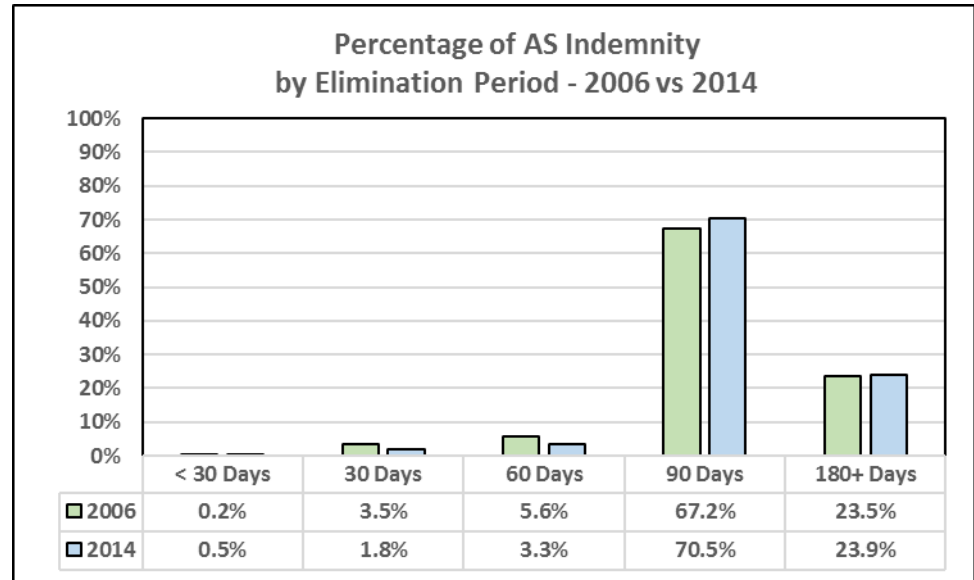


- Lifetime business is slowly fading away driven by two trends:
  - Sales have steadily decreased in 1995 to a virtually non-existent level in 2010
  - Existing inforce contracts expiring as insureds reach the end of the coverage period (usually age 65)



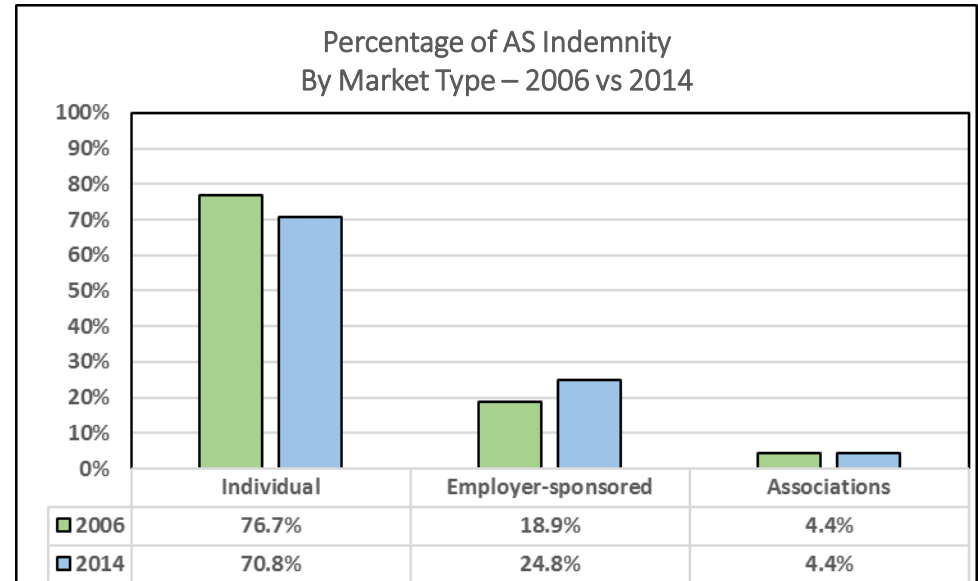
# Exposure Trend Analysis – AS by Elimination Period

- 90-day EP is still the predominant form of business
- Less than 90-day EP is dominated by pre-1995 issues and slowly disappearing as contracts expire
- 180+ is more popular in Employer Sponsored setting but is not growing fast due to smaller indemnity in that market segment



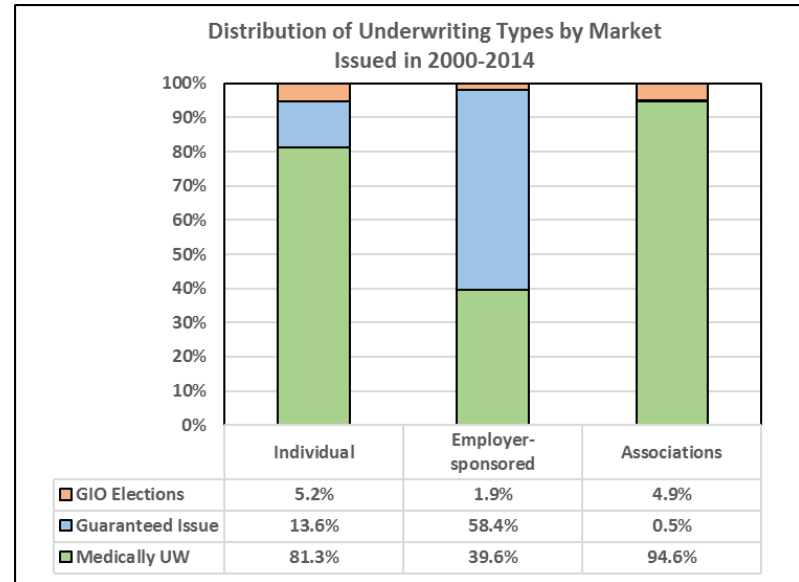
# Exposure Trend Analysis – AS by Market

- Individual market remains the largest ID market
- Employer-sponsored has been the “growth engine” of the IDI industry



# Exposure Trend Analysis – AS by Underwriting Types and Market

- Guaranteed issue underwriting is the predominant form of underwriting for the employer-sponsored market (issue years 2000-2014)
- Guaranteed issue in the individual market is comprised of business issued under various marketing programs

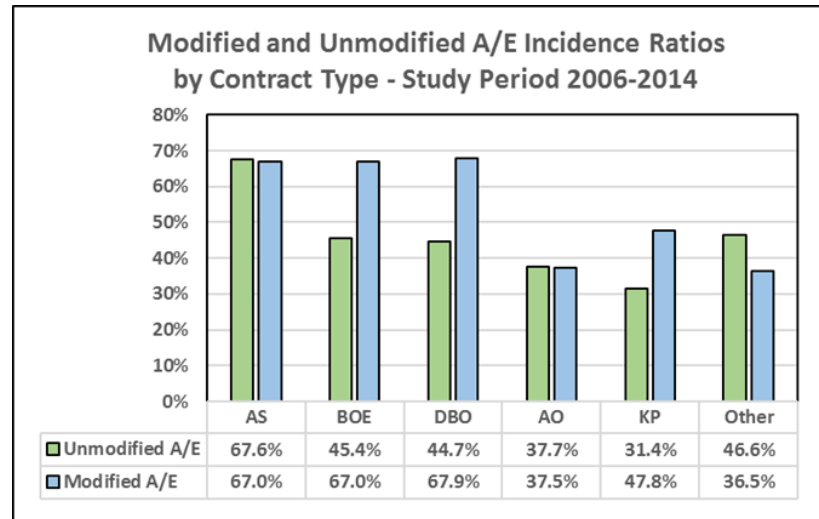


# Incidence Rates



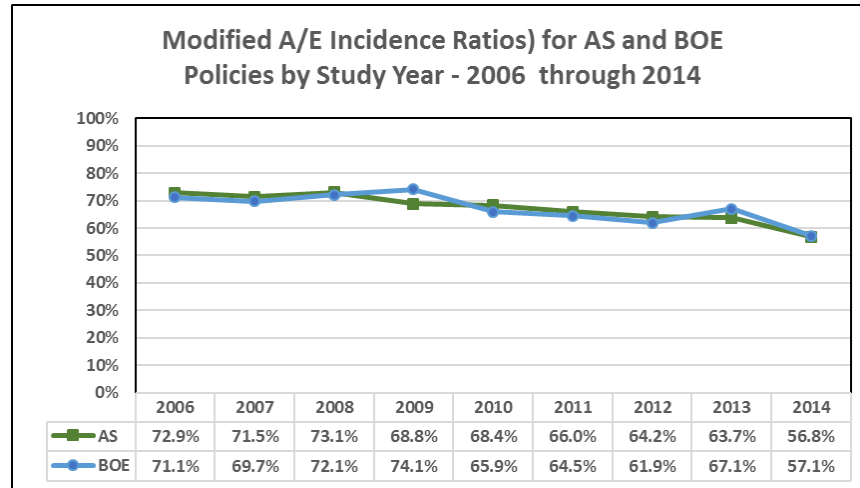
# Claim Incidence A/E by Product Type

- Aggregate A/E (Modified) over the study period is 66.7% of the table
- The chart below compares the unmodified and modified A/E incidence ratios by contract type over the 2006-2014 study period
- The 66.9% claim incidence modifier for business products (i.e., BOE, DBO and KP) appears justified as the Modified A/E line up nicely for the three product categories with decent exposure



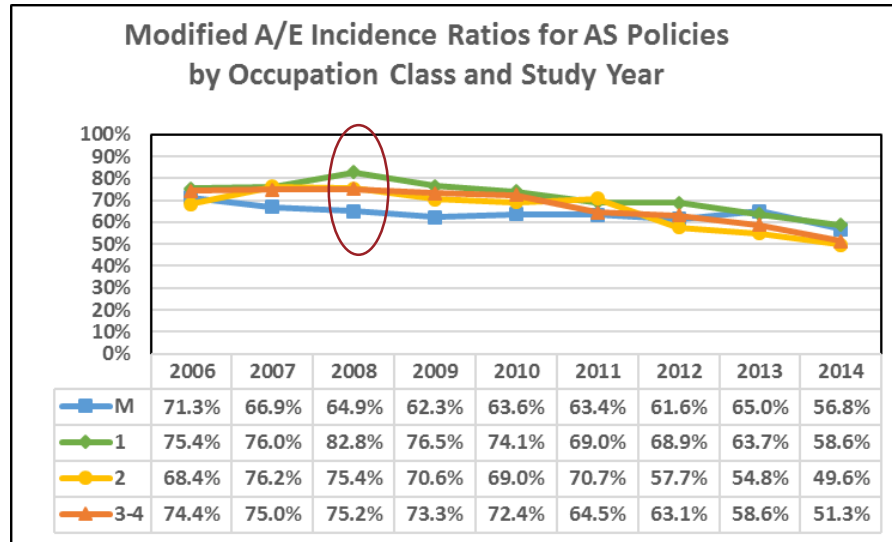
# Claim Incidence A/E (Modified) by Year and Product Type

- Both AS and BOE policies experienced generally decreasing and closely parallel A/E claim incidence ratios throughout the 2006-2014 study period



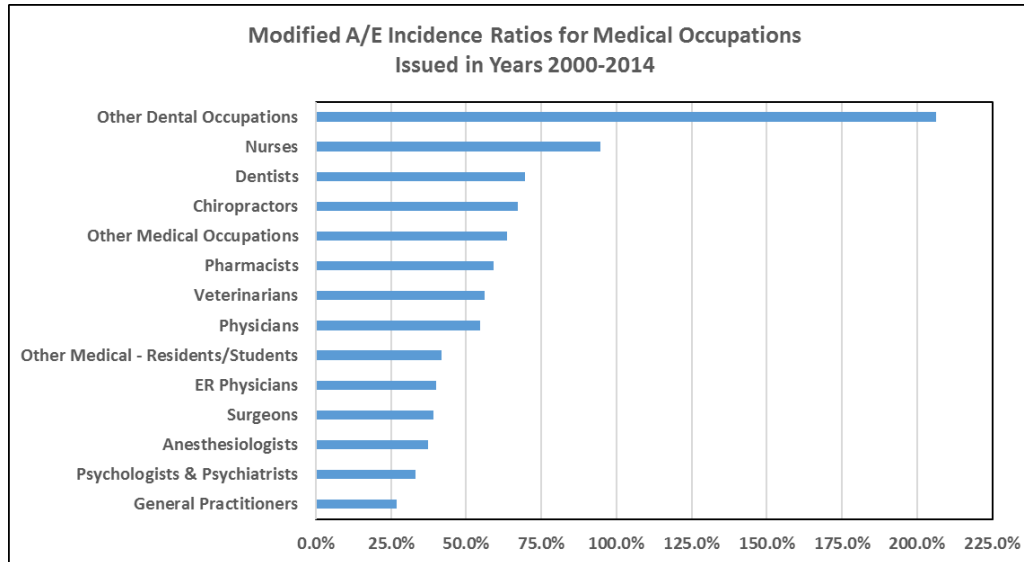
# Accident and Sickness Claim Incidence A/E (Modified) by Year and Occupation Class

- All five IDEC occupation classes experienced generally decreasing modified A/E incidence ratios
- Small jump in the A/E ratios for Occupation Class 1 around 2008 may reflect the impact of the economic recession at that time



# Accident and Sickness Claim Incidence A/E (Modified) by Medical Occupations

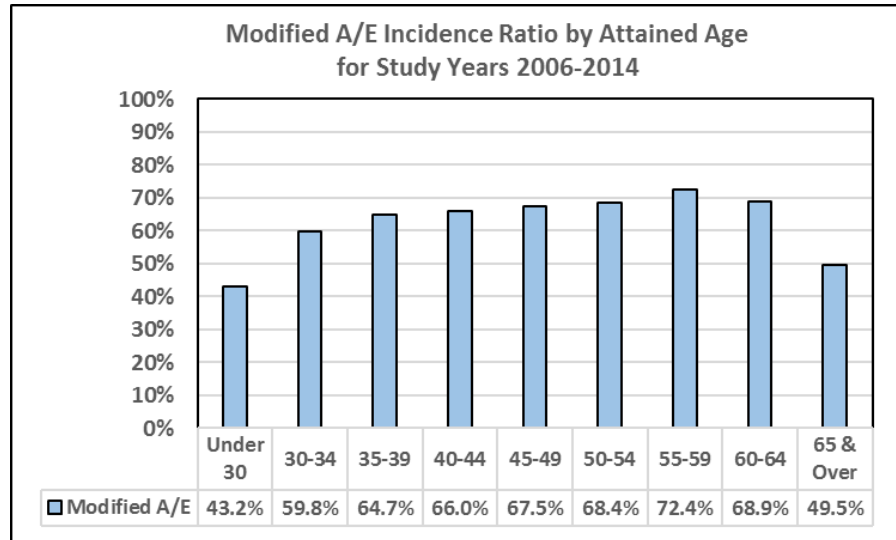
- General practitioners had the lowest A/E incidence ratio
- Other dental occupations (e.g., dental hygienists, assistants) had the highest A/E ratio
- Nurses, Dentists & Chiropractors (physically intensive medical occupations) tend to have higher A/E ratios
- *Note: the results are limited to AS business issued since 2000*





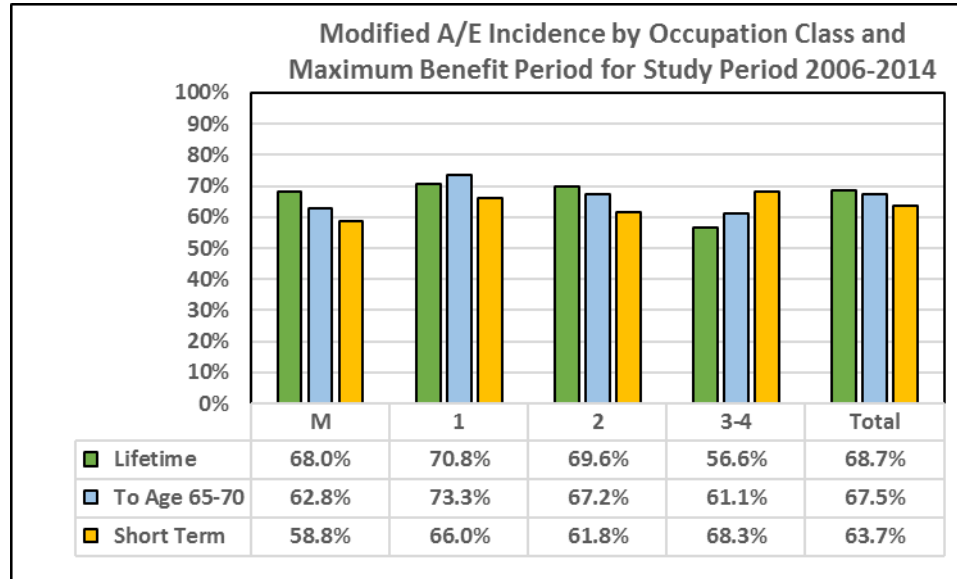
# Accident and Sickness Claim Incidence A/E (Modified) by Attained Age

- Generally consistent A/E ratio by attained age except for under 30 and 65 and higher
- Incidence for ages 65 and higher is favorable due to requirement that insureds be gainfully employed in order to continue their IDI coverage beyond the normal renewal period
  - With coverage periods increasing to 67 and 70, it will be interesting to see how the experience emerges in the coming studies



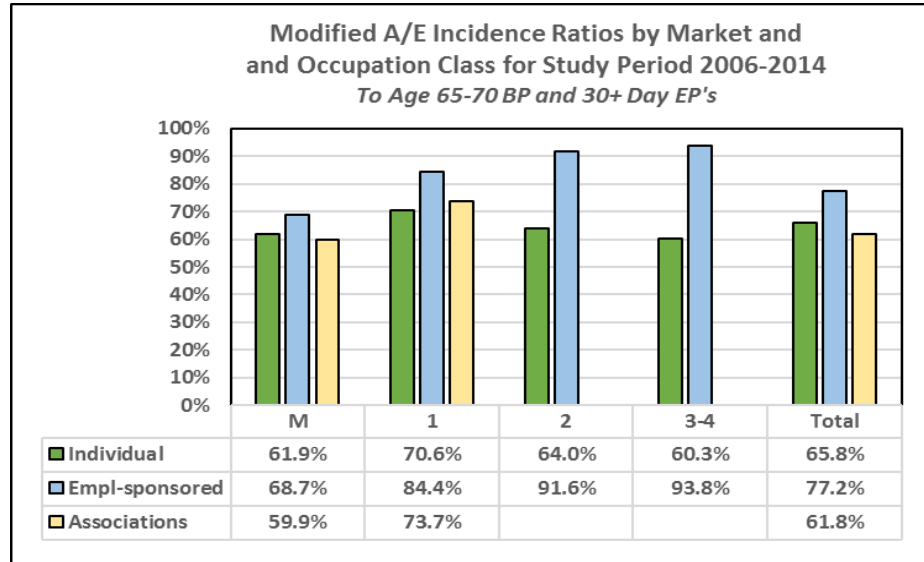
# Accident and Sickness Claim Incidence A/E (Modified) by Benefit Period and Occupation Class

- Another good example that incidence modifiers are appropriate: A/E ratios for AS policies with lifetime maximum benefit periods were close to those with To Age 65-70 maximum benefit periods
- Occupation Class 1 exhibits the A/E ratios for both Lifetime and To Age 65-67



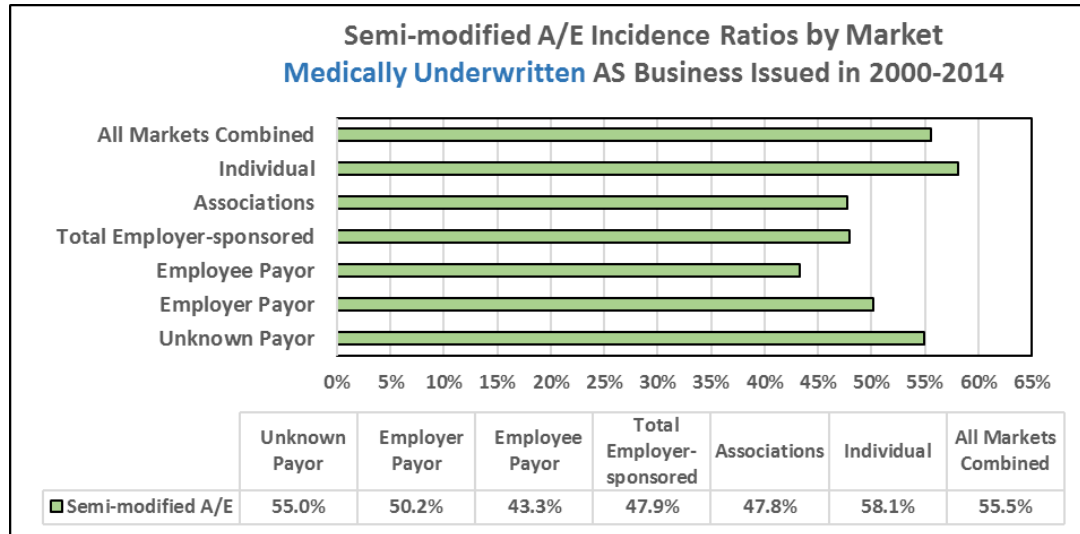
# Accident and Sickness Claim Incidence A/E (Modified) by Market and Occupation Class

- The results combine all forms of underwriting
- Employer-Sponsored AS business has higher modified A/E incidence ratios than the individual and associations markets in all occupation classes
- This is different from results observed during the 1990-2006 study period, which showed that the Employer-Sponsored market had significantly lower A/E incidence ratios than the other markets



# Semi-Modified<sup>1</sup> A/E Incidence Ratios by Market (Medically Underwritten AS Business Issued in 2000 – 2014)

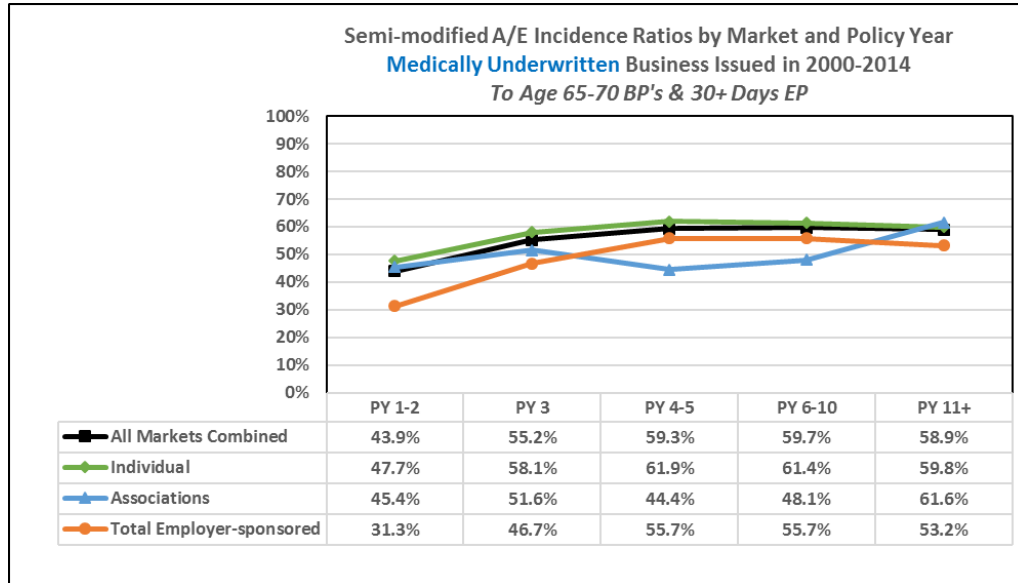
- The medically underwritten business issued in the employee payor segment has the lowest A/E ratios among the various markets and payor segments



<sup>1</sup> Semi-modified means that the 2013 IDIVT is modified by all claim incidence modifiers, except for the marketing/underwriting modifiers. This allows for analysis of the underlying trends without the “normalization” from the modifiers.

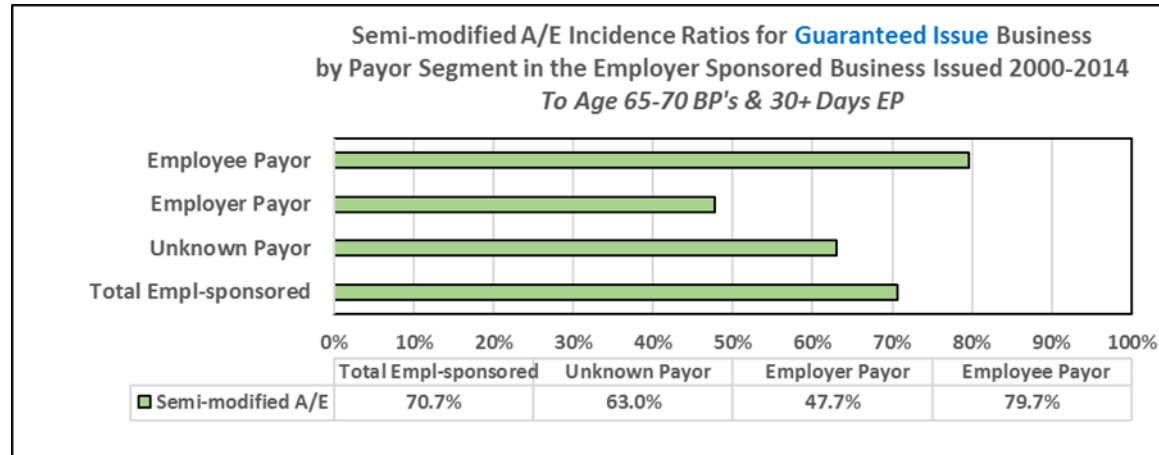
# Semi-Modified A/E Incidence Ratios by Market (Medically Underwritten AS Business Issued in 2000 – 2014)

- The biggest differences by market for medically underwritten business occur in the first five policy years



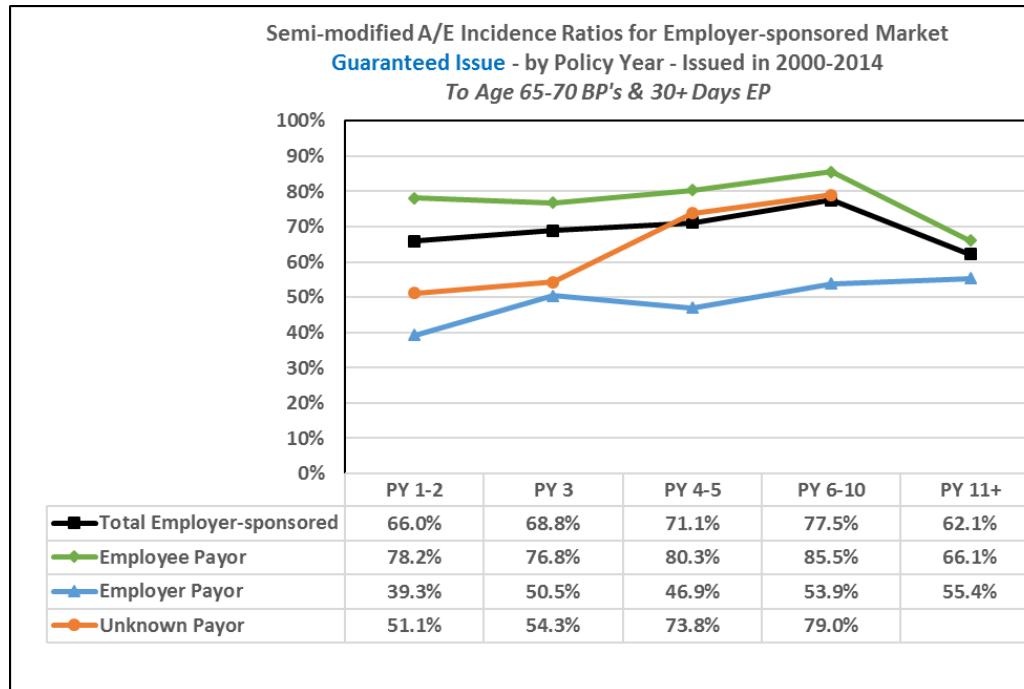
# Semi-Modified A/E Incidence Ratios for Guaranteed Issue

- Includes guaranteed-to-issue experience
- The employee payor segment, where participation is voluntary, had the highest semi-modified A/E incidence ratios, and the employer payor segment, where participation is mandatory, had the lowest



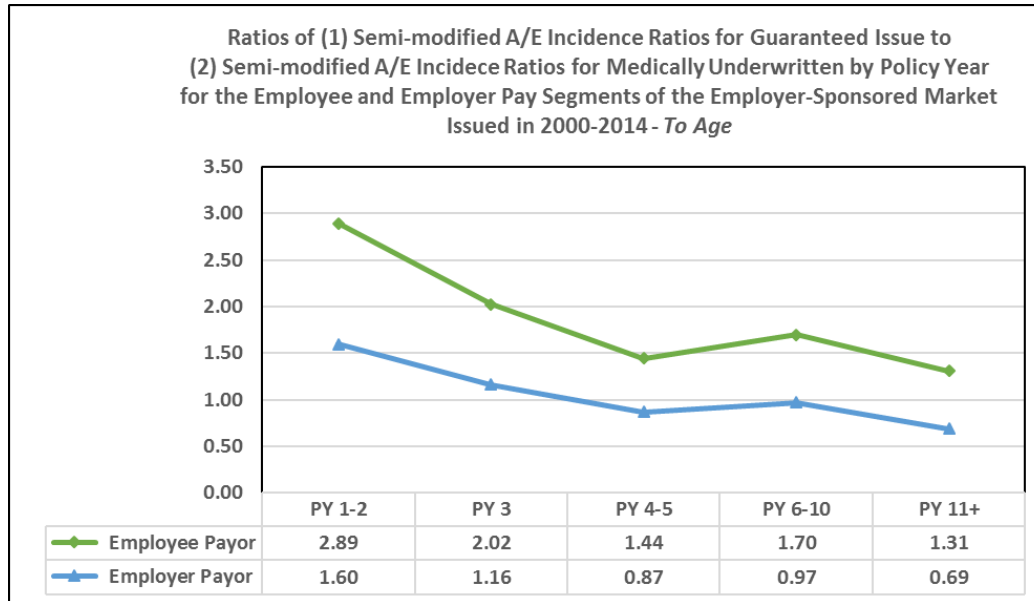
# Semi-Modified A/E Incidence Ratios for Guaranteed Issue

- Differences in the A/E incidence ratios by payor segment in the Employer-Sponsored market largely disappear after the first ten policy years



# Semi-Modified A/E Incidence Ratios for Guaranteed Issue to Semi-Modified A/E Incidence Ratios for Medically Underwritten

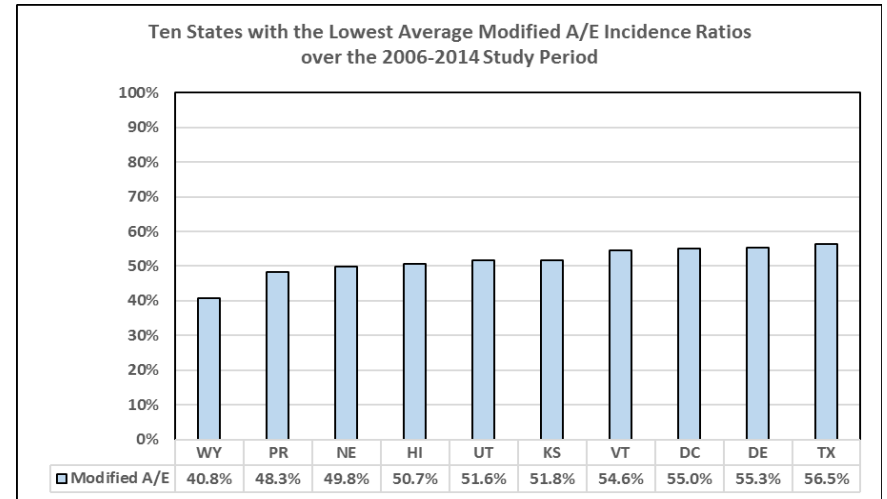
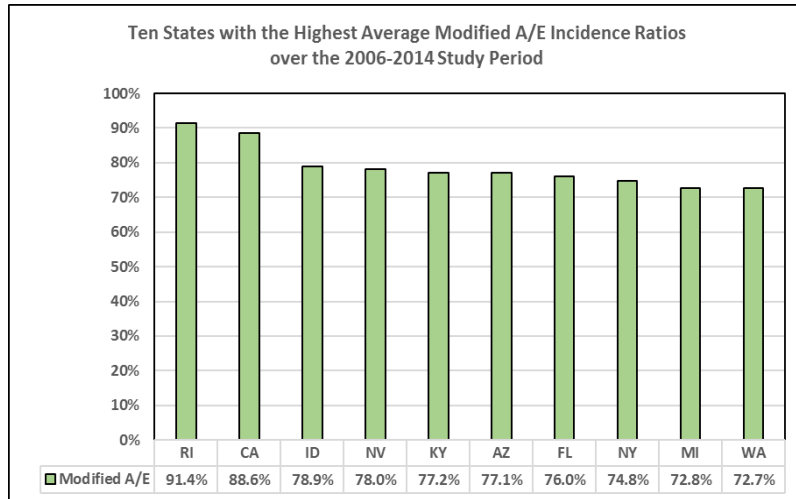
- The chart below illustrates the different levels of anti-selection generated by Guaranteed Issue underwriting in the Employee Payor and Employer Payor segments of the Employer-Sponsored market
- Voluntary GI business exhibits close to a 3-to-1 ratio of A/E incidence ratios when compared to Voluntary medically underwritten business in the first two policy durations





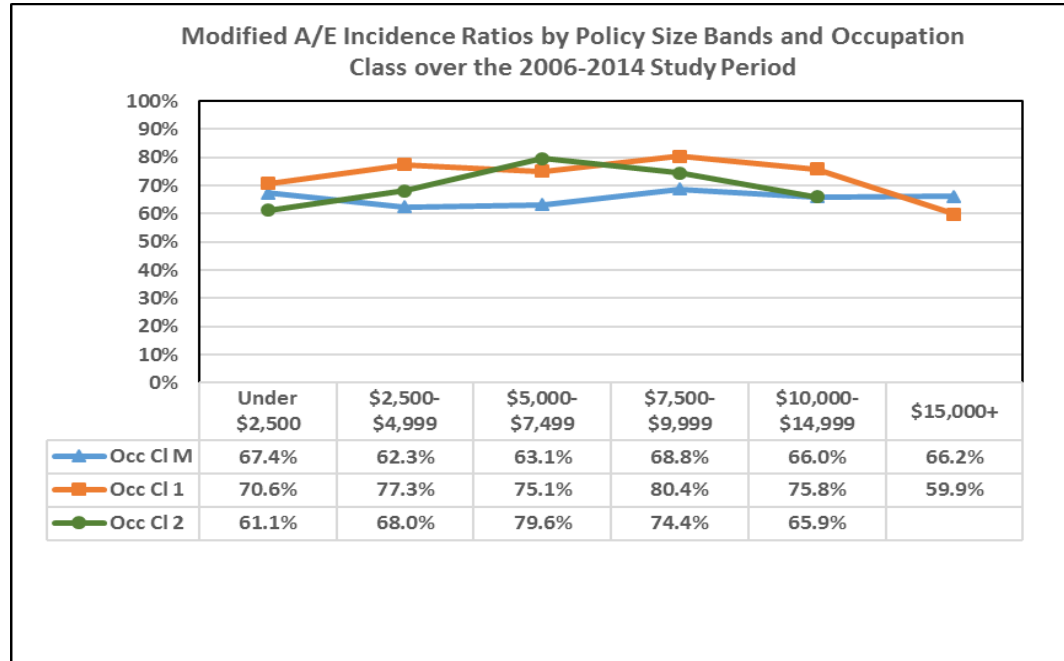
# A/E Incidence by State of Issue

- There are significant differences in A/E incidence ratios by state of issue



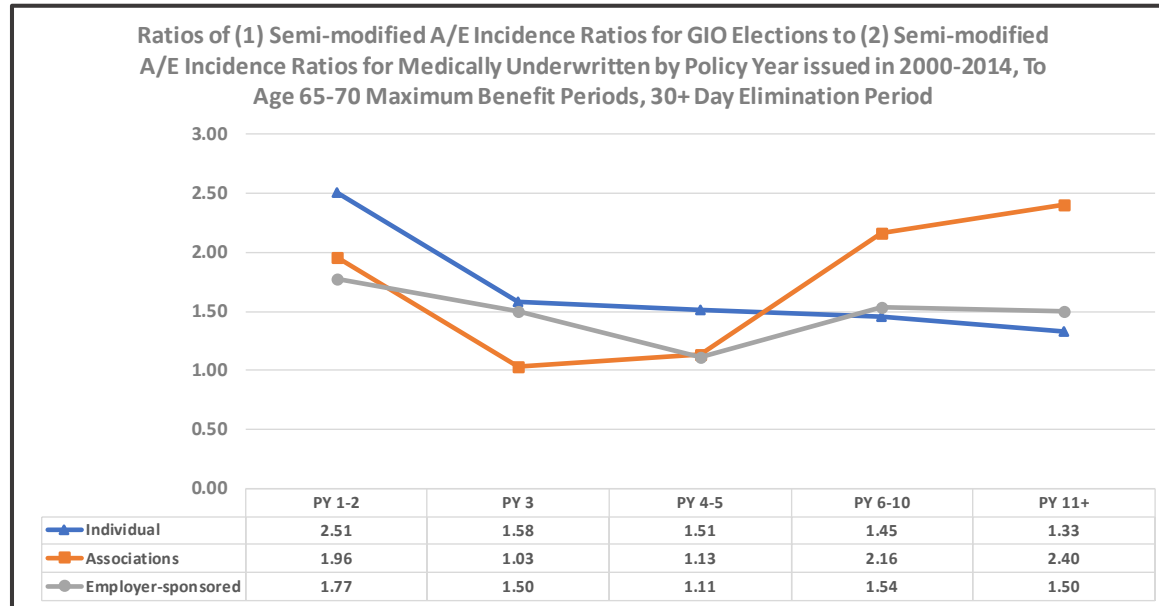
# Modified A/E Incidence Ratios by Policy Size

- Although the A/E ratios decrease somewhat at the upper policy size bands, there does not appear to be significant differences by policy size bands



# Semi-Modified A/E Incidence for GIO Elections

- Not surprisingly, the GIO elections (Individual & Employer-Sponsored markets) experienced their highest A/E ratios relative to medically underwritten business in the first two policy years
- The relative A/E ratios converge slowly, but remain higher than individual medical A/E ratios



# Questions?





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