

WC-1: Market Conditions of Specific States (DE, OH, PA and WA)

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Overview

- CMCRB – who we are
- CMCRB – what we do
- Limited data challenges
- Other challenges
- Traumatic data
- Occupational Disease (O.D.) Frequency data
- O.D. Severity data
- The Protz decision – some observations



CMCRB – who we are

- The CMCRB is the rating organization for the ten (10) coal mining w.c. classifications in PA.
 - Four (4) Anthracite classes – Underground, Surface, Co-Gen and Prep Plant
 - Four (4) Bituminous classes – Underground, Surface, Co-Gen and Prep Plant
 - Two (2) other classes – Auger Mining and Coke Mfgr.
- The PCRB is the rating organization for all other w.c. classifications (i.e., commercial classifications) in Pennsylvania.



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CMCRB – what we do

- The CMCRB promulgates advisory loss costs that are updated annually for the 10 coal mining classes.
- Additionally, these 10 classes are split into three components – Traumatic (standard w.c. act coverage), State Occupational Disease and Federal Occupational Disease.
 - The O.D. components primarily cover Black Lung (or CWP) exposure.
- While we don't establish or set reserves per se, the challenges that we face also arise in many reserve setting scenarios.



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Limited data challenges (1 of 2)

- Premium volume
 - CMCRB NDWP: \$14.6 million in 2015 (all bus.)
 - PCRB Std. Earned Prem.: \$1.6 billion in 2014 (ex. Lrg. Deds.)
- Claim volume – traumatic
 - CMCRB: 179 lost-time claims in 2015
 - PCRB: 20,044 lost-time claims in 2014 (excl. Lrg. Deds.)
 - PCRB: 40,226 lost-time claims in 2014 (all bus.)



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Limited data challenges (2 of 2)

- Claim volume – occupational disease
 - State – for 2006 through 2015 (a 10-year period!)
 - 21 Awarded, 1 Pending, 2 Denied, 17.7 IBNR Est.
 - 38.1 Expected Ultimate Awarded
 - (or 3.8 claims per year)
 - Federal – for 2006 through 2015
 - 13 Awarded, 26 Pending, 63 Denied, 245.2 IBNR Est.
 - 53.2 Expected Ultimate Awarded
 - (or 5.3 claims per year)



Other challenges

- Shifts in the underlying data – insureds, carriers, classes, coverages, deductibles,...
- The coal mining environment – more stringent safety and environmental regulation
- The market for coal – declining or declined?
- Changes in claim adjudication and processing – especially on Federal Black Lung claims
- Legislative, regulatory, judicial... the PA Supreme Court decision in Protz



Traumatic data (1 of 3)

- Generally, we use the same approaches that are typically used with small data and larger data sets alike – use multiple estimates, limit unusual observations once understood,...
- However, we smooth Indemnity and Medical LDFs since we have been uncomfortable with “reversals” in the actual data.



Traumatic data (2 of 3)

- Indemnity – loss development example
 - Accept the first 4 Age-to-Age factors.
 - Replace the remaining factors with those derived from a linear model
 - Model assumptions
 - Slightly downward slope
 - At some point, no further development
 - Upward accumulation of modeled factors needs to equal the upward accumulation of actual factors
 - Consideration given to PCRB tail factor



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Traumatic data (3 of 3)

- Medical – loss development example
 - Accept the first 2 Age-to-Age factors.
 - Replace the remaining factors with those derived from an exponential model
 - Model assumptions
 - Similar to Indemnity assumptions adjusted for different model
 - Slightly more reliance on PCRB factors.



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O. D. Frequency data

- In our Traumatic analysis, we generally work with aggregate incurred and paid loss data.
- However, in our O.D. analysis, we work independently with Claim Frequency and Claim Severity.
- We develop O.D. Claim Frequency estimates based on Estimated Miner Years in lieu of Payroll.
- This process was developed to minimize any potential concern with Claim Frequency trend. In fact, we have used an inherent Claim Frequency trend of 0% for some time for O.D. purposes.



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O. D. Severity data (1 of 3)

- We develop O.D. Claim Severity estimates using the specific demographic information from each Awarded and Pending claim from 1990 – current data.
- This gives us about 120 S.O.D. claims and 200 F.O.D. claims to model.
- Benefit levels – state and federal
 - State – related to wage level with some limitations
 - Federal – not related to wage level, just marital and dependent status.



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O. D. Severity data (2 of 3)

- Mortality – we replace actual or claim specific mortality with general mortality assumptions – when miner dies after they begin to receive benefits (we “undie” them) – probably not appropriate for reserving work, but appropriate for ratemaking work
- Mortality – we also use an adjustment to general mortality given the specific mortality witnessed for PA coal miners.
 - Younger Miners with Awarded claims die sooner than expected – their mortality is worse than average.
 - Older Miners die a little later than expected – their mortality is slightly better than average.



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O. D. Severity data (3 of 3)


- Remarriage consideration
- Offsets – Social Security, Private Pension – State only, not Federal
- We bring data from historical to current benefit level – likely not appropriate for reserving work



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Protz decision... (1 of 3)


- CMCRB preliminary thoughts about Protz from our 3 coverage perspective
- State O.D. – we understand that SOD claims are essentially "all or nothing" – totally disabled or not. Since Protz involves impairment rating, we do not anticipate an impact to SOD claims.
- Federal O.D. – Basic Federal claims involve an independent (federal law and regulation based) disability standard, so Protz is not a consideration. Excess Federal claims would only be affected if State O.D. claims are affected, so again, we do not anticipate an impact to FOD claims.
- Traumatic – our Bureau struggles with limited data and resource issues.



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Protz decision... (2 of 3)

- More thoughts about Traumatic...
 - Permanent Total Claims to Total Lost-Time Claims
 - 1980 through 1996: 1.7%
 - 1997 through 2016: 0.4%
 - Death Claims to Total Lost-Time Claims
 - 1980 through 1996: 0.6%
 - 1997 through 2016: 0.6%
 - Lump Sum/C&R Claims to Total Lost-Time Claims
 - 1980 through 1996: 4%
 - 1997 through 2016: 19%




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Protz decision... (3 of 3)

- More thoughts about Traumatic...
 - Reported Avg. Ind. & Med. on Lost-Time Claims

	Perm. Total	Perm. Partial	Ratio: PT to PP
1980 through 1996	452,786	105,735	428%
1997 through 2016	699,669	170,577	410%



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Questions and Discussion