

Individual Disability Table Work Group (IDTWG) Presentation

Joint Academy/SOA Project

2013 DI & LTC Insurers' Forum

September 20, 2013



Abbreviations

IDEC Individual Disability Experience Committee
SOA committee that is charged with performing experience studies, and creating experience reports and tables.

IDTWG Individual Disability Table Work Group
Joint SOA/Academy work group whose charge is to build and recommend valuation tables.



American Academy of Actuaries

The American Academy of Actuaries is a 17,000 member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, practice, and professionalism standards for actuaries in the United States.



Agenda

1. Review IDEC and IDTWG developments, progress and timeline
2. Finalization of claim incidence and termination rate
3. Own company experience and credibility



2012 Developments

- IDEC completed study of Individual Disability Insurance (IDI) industry experience from 1990 to 2007
- IDEC developed preliminary claim incidence and termination experience tables:
 - 2012 IDEC claim incidence and termination tables
 - Released SOA – IDEC Tables Workbook.xlsm
- IDEC conducted an SOA webcast in December to discuss progress and timeline for new valuation tables and review preliminary tables and SOA workbook



2012 Developments (cont.)

- The Academy accepted the following request from the NAIC Health Actuarial Task Force (HATF) to develop new IDI valuation tables:

The Health Actuarial Task Force asks the American Academy of Actuaries to develop a Valuation Table to replace the 1985 Commissioners Individual Disability Table (CIDA) and CIDC. In developing this table, the Academy shall communicate monthly with Health Actuarial Task Force on this work. If possible, a recommendation should be received by HATF at its December, 2013 meeting.



2013 Developments

- IDTWG was created in February
- IDEC released the IDEC Report 1990-2007 in March which:
 - Compares claim incidence and termination experience to the 1985 CIDA and CIDC
 - Provides in-depth analysis for IDI actuaries



IDTWG Members

- Comprised of experienced IDI actuaries

Member	Subgroup
Bob Beal - Co-chairperson	Tables – chairperson
Doug Taylor – Co-chairperson	Logistics – chairperson
David Andreae	Tables
Jay Barriss	Tables
Kathryn Campbell	Tables
Carl Desrochers	Margins – chairperson
Rich Ferree	Credibility
Greg Gurlik	Margins
Brian Holland	Margins
Bill Obert	Credibility – chairperson
Jack Luff	Logistics
Marianne Purushotham	Data
Todd Peterson	Credibility
Jon Stinson	Margins
David Wall	Data
Mark Seliber	Credibility
Nathan Worrell	Credibility



IDTWG Sub-Groups

- Four sub-groups formed with the following charges:
 1. **Tables** – with the experience table as a starting point, develop and recommend a structure for the proposed valuation table
 2. **Margins** – develop and recommend the level of margins to be included in the valuation table
 3. **Credibility** – develop and recommend methodology for incorporating company experience into the valuation table
 4. **Implementation/logistics** – Develop timeline needed to deliver proposed valuation tables and update of the NAIC model regulation



Tables Sub-Group

Finalization of Claim Incidence and Termination Rate Tables



Tables Subgroup Key Steps

1. Finalize experience tables
 - Represent industry experience – no margins
 - Provide the basis for valuation tables
 - Provide more detail than will be used in valuation table
 - Start with 2012 IDEC preliminary tables
 - Apply more rigor to the development of the table



Tables Subgroup Key Steps (cont.)

1. Develop valuation tables with no margin
 - Determine set of key variables from experience table to be used in valuation table
2. Give final tables to margins and credibility subgroups



Experience Table Development

1. Will use the 2012 IDEC claim incidence base tables, but with improved claim incidence modifiers
2. Applying two-dimensional Whitaker-Henderson graduation to raw CTR data to obtain smoother and more consistent CTR's by age and duration for “select” durations of disablement
 - Month 1 through month 24: differences by occupation class, gender, elimination period and age at disablement



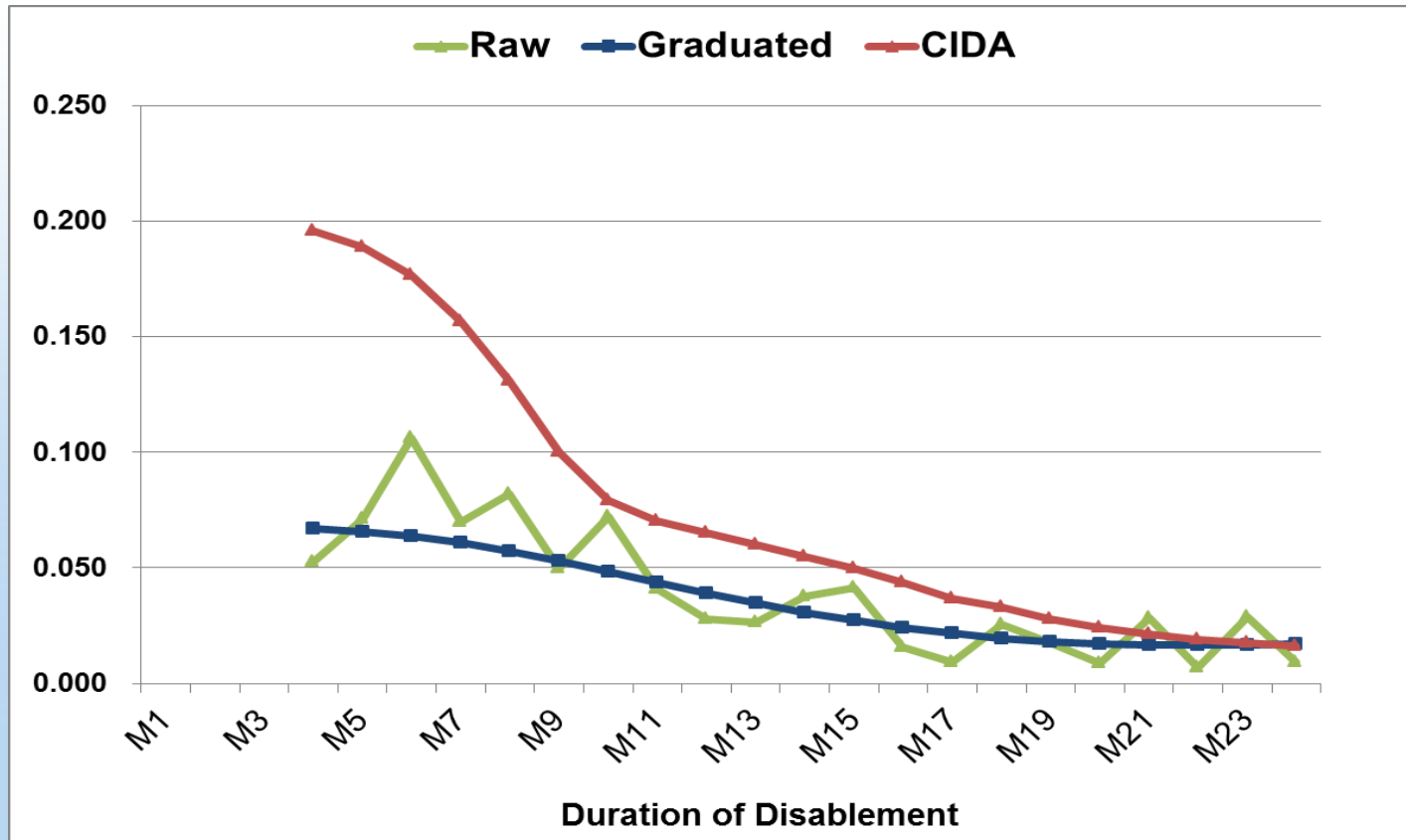
Experience Table Development (cont.)

- Month 25 through month 60: differences by occupation class, gender and age at disablement
 - Removed differences by elimination period
- Years 6 through 10: differences by gender and age at disablement
 - Removed differences by occupation class and elimination period
- Years 11+: differences by gender and attained age



Sample of CTR Graduation

Male (42), Occ Class 1, EP = 90 Days, Durations M1-M24

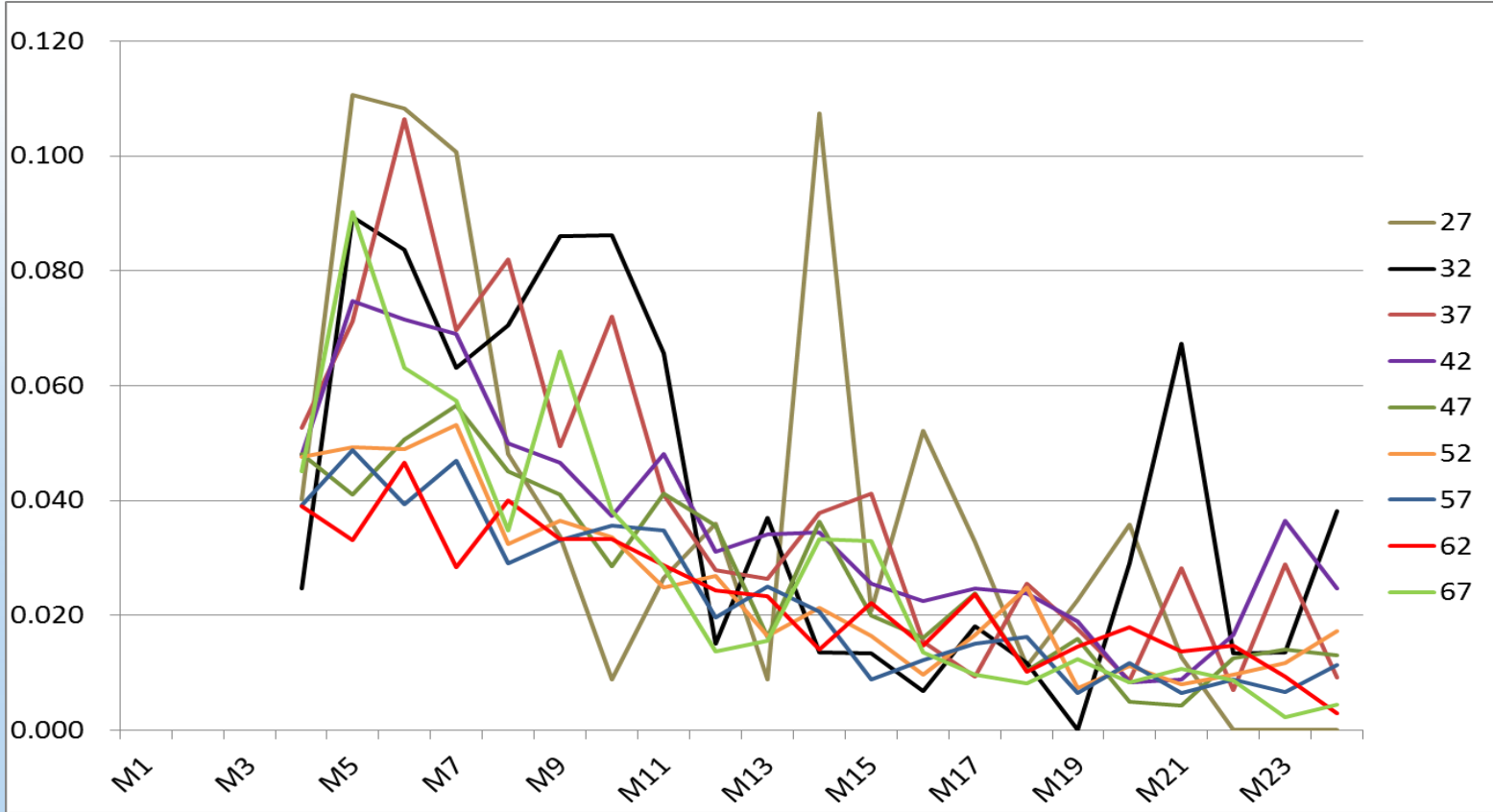


Source: IDTWG – Tables Sub-group



Sample of CTR Graduation (cont.)

All Pivotal Ages – Raw CTR's

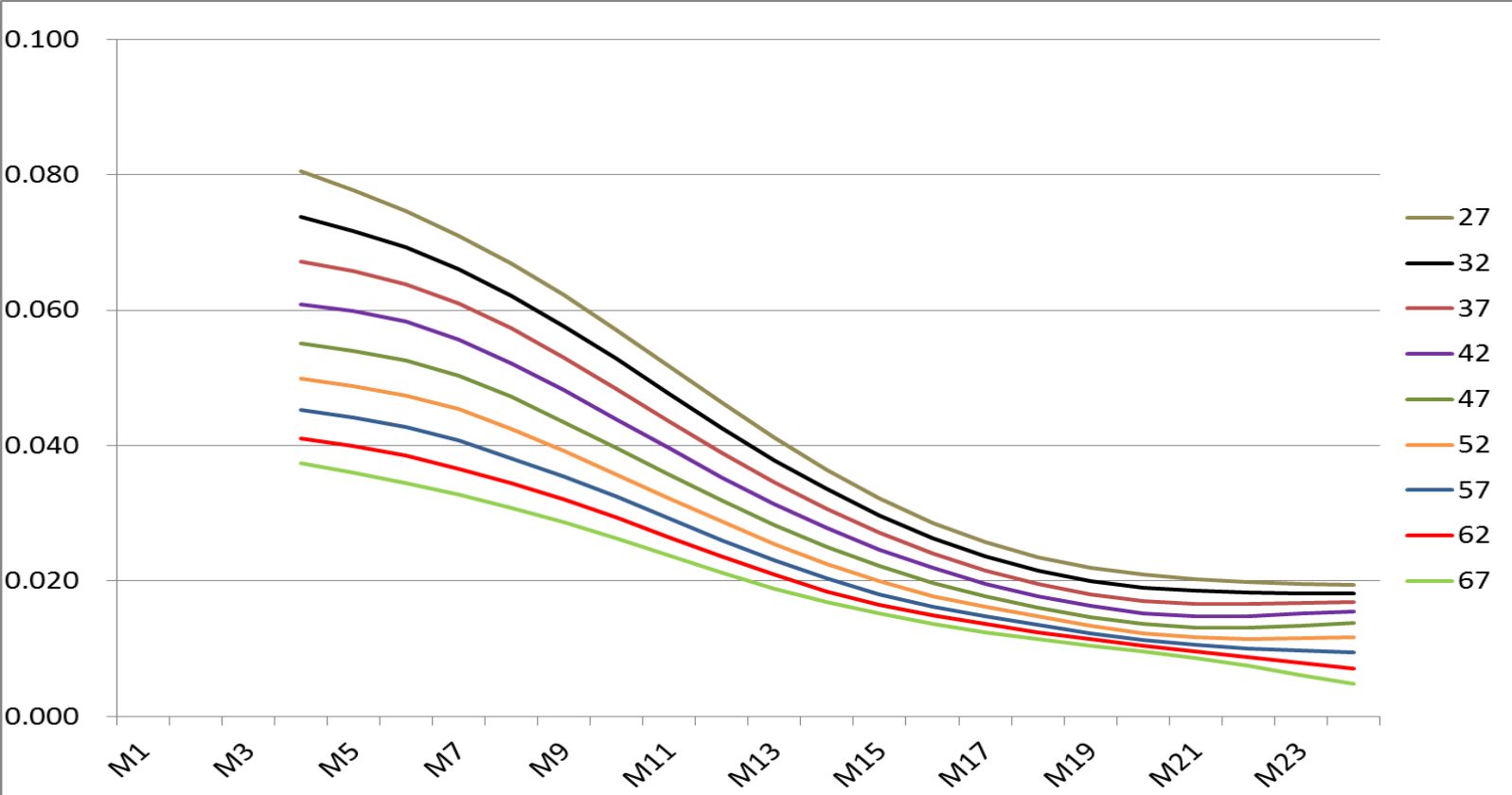


Source: IDTWG – Tables Sub-group



Sample of CTR Graduation (cont.)

All Pivotal Ages – Graduated CTR's

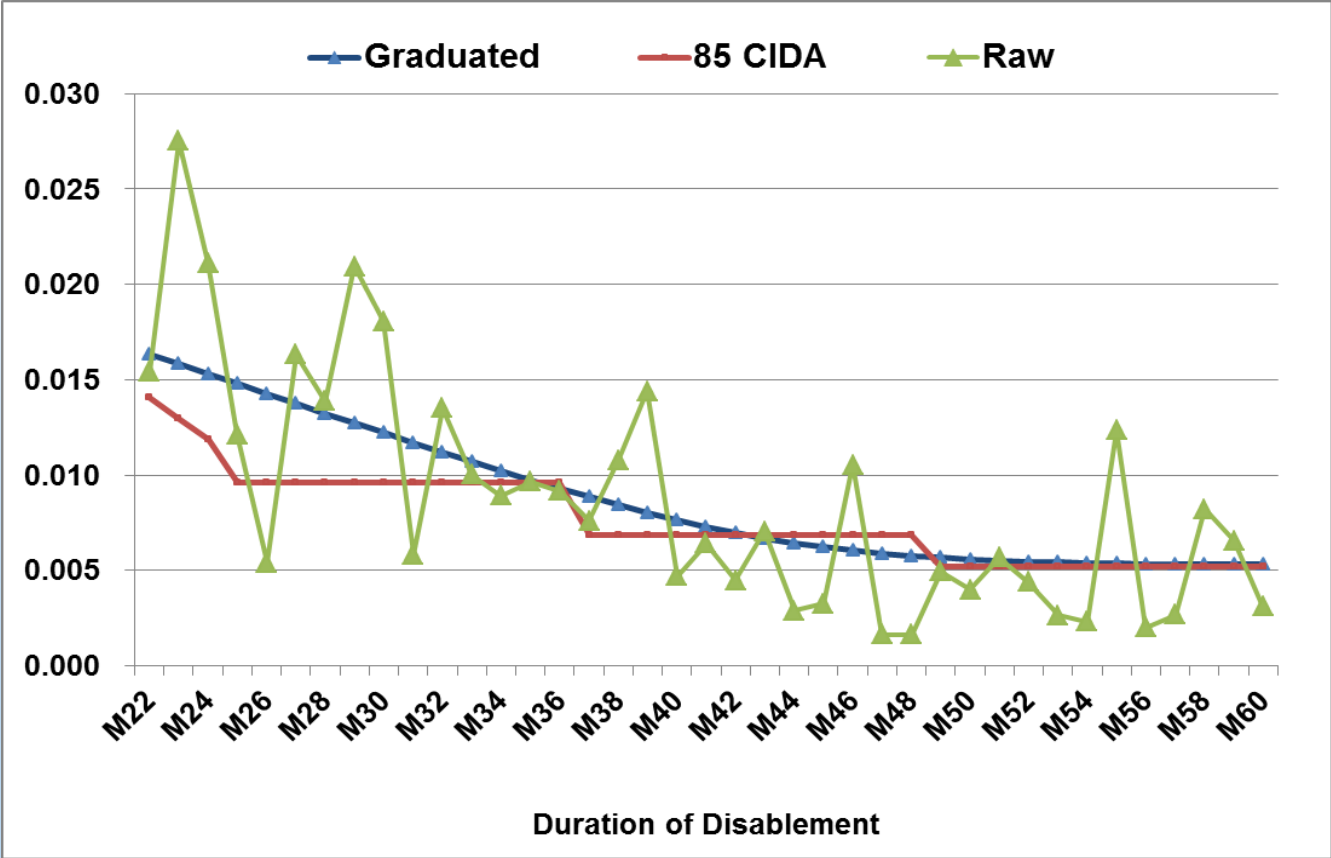


Source: IDTWG – Tables Sub-group



Sample of CTR Graduation (cont.)

CTR's for Age 42, Month 25 to Month 60

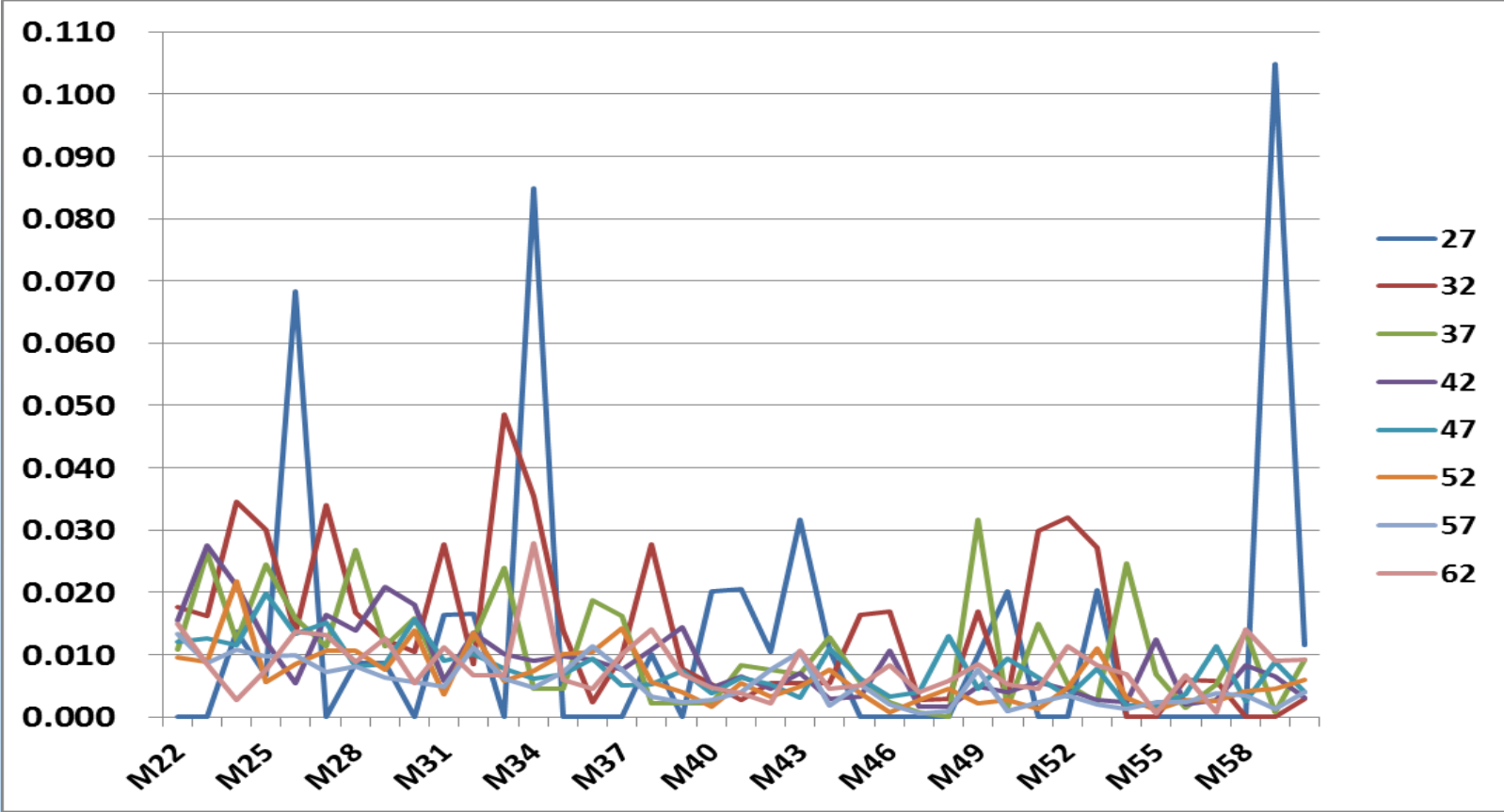


Source: IDTWG – Tables Sub-group



Sample of CTR Graduation (cont.)

All Pivotal Ages – Raw CTR's

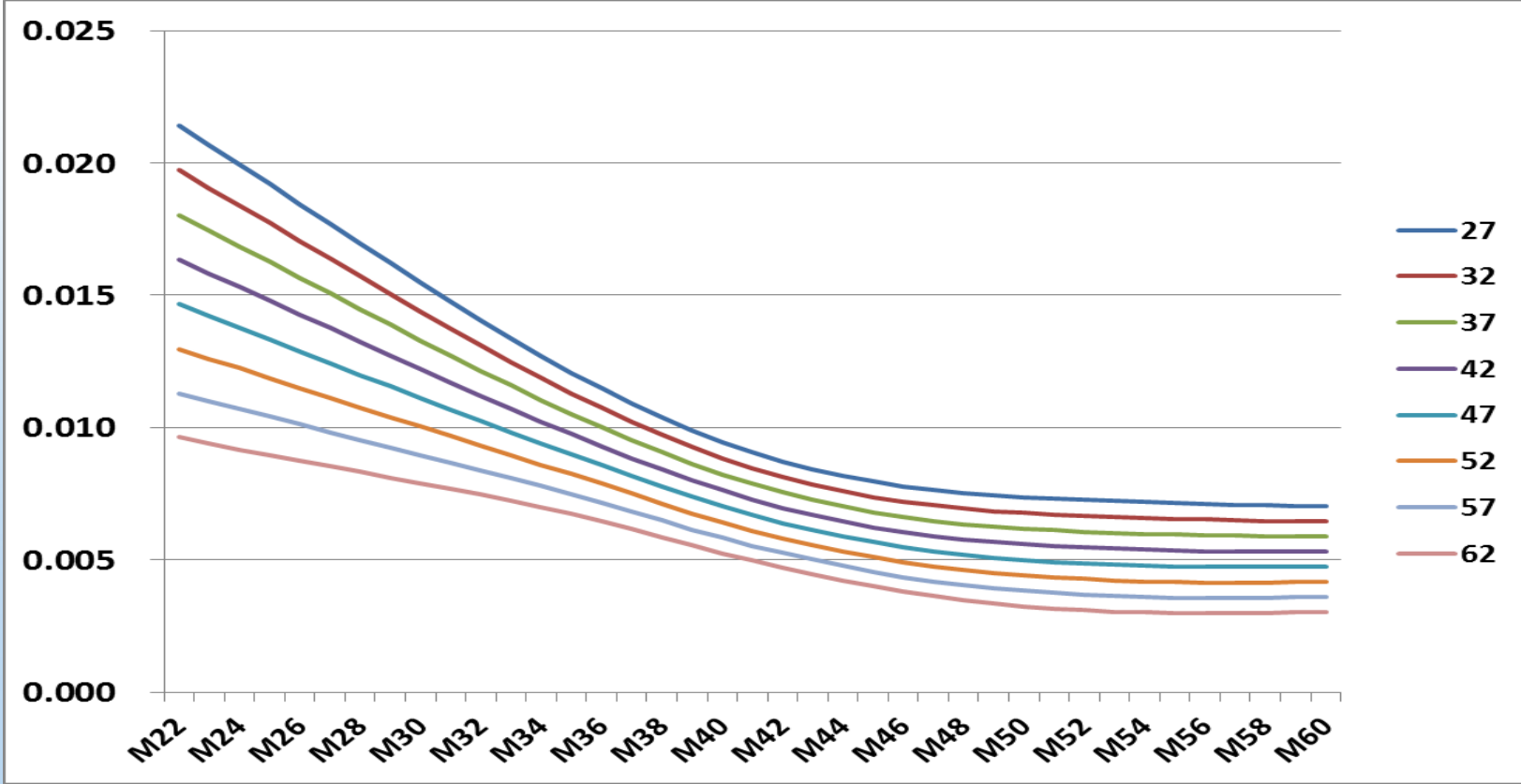


Source: IDTWG – Tables Sub-group



Sample of CTR Graduation (cont.)

All Pivotal Ages – Graduated CTR's

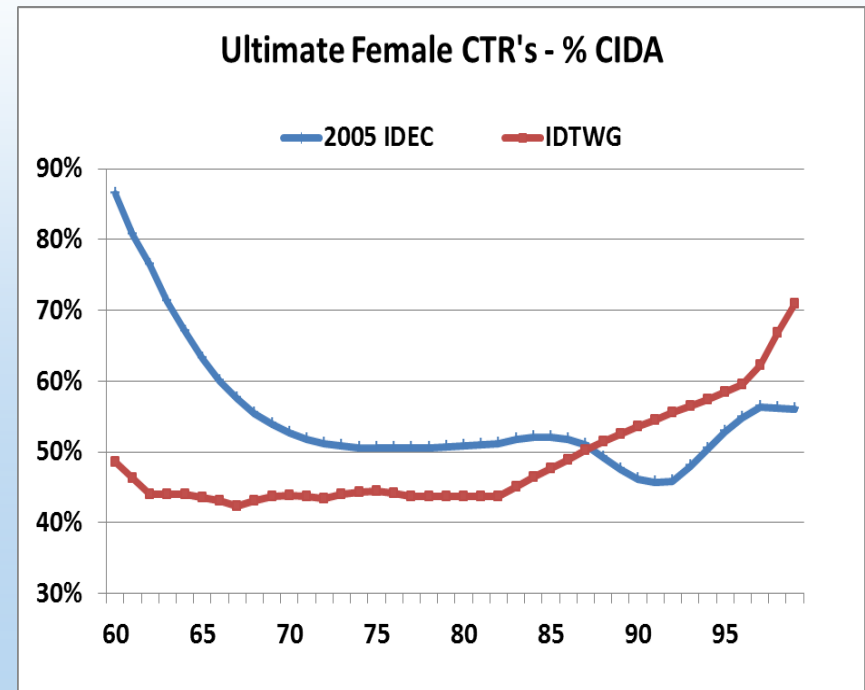
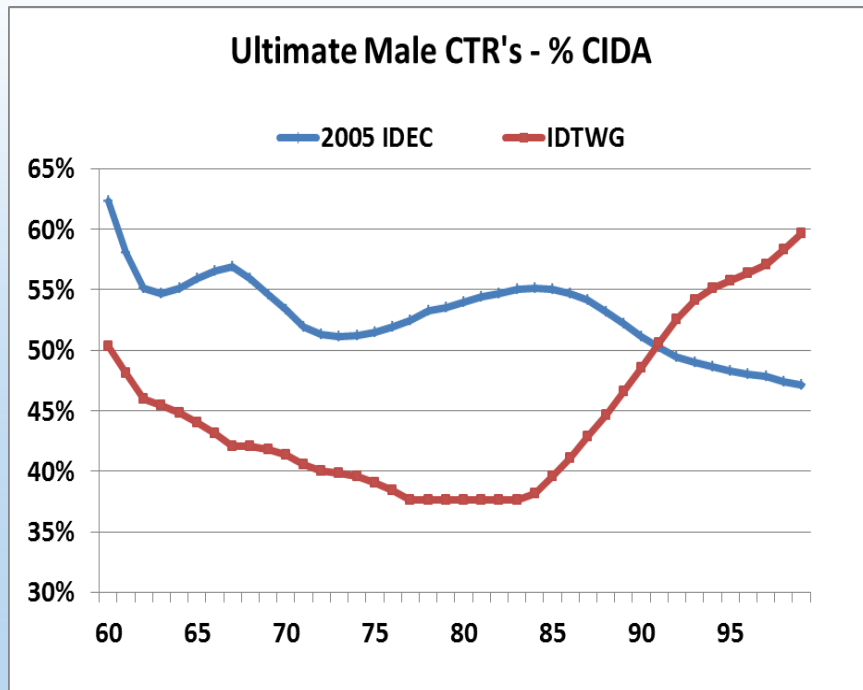


Source: IDTWG – Tables Sub-group



Experience Table Development

“Ultimate” CTR’s will blend into 125 percent of 2008 VBT mortality rather than 125 percent of 2001 VBT



Source: IDTWG – Tables Sub-group



Claim Incidence Modifiers

- To be used for the Experience Table
- To be used for the Valuation Table
- Not necessarily the same
- Various modifiers are multiplicative



Claim Incidence Modifiers By Benefit Period Used for Both Experience & Valuation Tables

Occ Class	EP	Benefit Period		
		Lifetime	To 65-70	Short Term
M	30- Day	103%	101%	95%
	60 Day	105%	101%	90%
	90+ Day	119%	97%	89%
1	30- Day	107%	104%	93%
	60 Day	116%	100%	90%
	90+ Day	142%	96%	96%
2	All	117%	99%	99%
3-4	All	100%	100%	100%

Source: IDTWG – Tables Sub-group



Claim Incidence Modifiers By Smoker Status Used for Both Experience & Valuation Tables

Male

Occ Class	EP	Nonsmoker	Smoker
M	30- Day	99%	123%
	60 Day	98%	151%
	90+ Day	98%	166%
1	30- Day	98%	131%
	60 Day	97%	143%
	90+ Day	96%	154%
2	30- Day	99%	106%
	60 Day	97%	133%
	90+ Day	96%	150%
3-4	All	98%	113%

Female

Occ Class	EP	Nonsmoker	Smoker
M	30- Day	99%	124%
	60 Day	99%	131%
	90+ Day	99%	135%
1	30- Day	99%	107%
	60 Day	99%	111%
	90+ Day	97%	135%
2	All	99%	112%
3-4	All	99%	112%

Source: IDTWG – Tables Sub-group



Claim Incidence Modifiers By Issue Year, Market & Policy Year – For Experience Table Only

Issued: Pre-1995

Policy Year	Market	
	Empl Spons	Indiv / Assoc
1	60%	97%
2	71%	109%
3	82%	135%
4-5	93%	130%
6-10	97%	123%
11+	87%	99%

Issued: 1995 and Later

Policy Year	Market	
	Empl Spons	Indiv / Assoc
1	57%	79%
2	61%	82%
3	63%	93%
4-5	68%	92%
6-10	67%	91%
11+	65%	81%

Source: IDTWG – Tables Sub-group



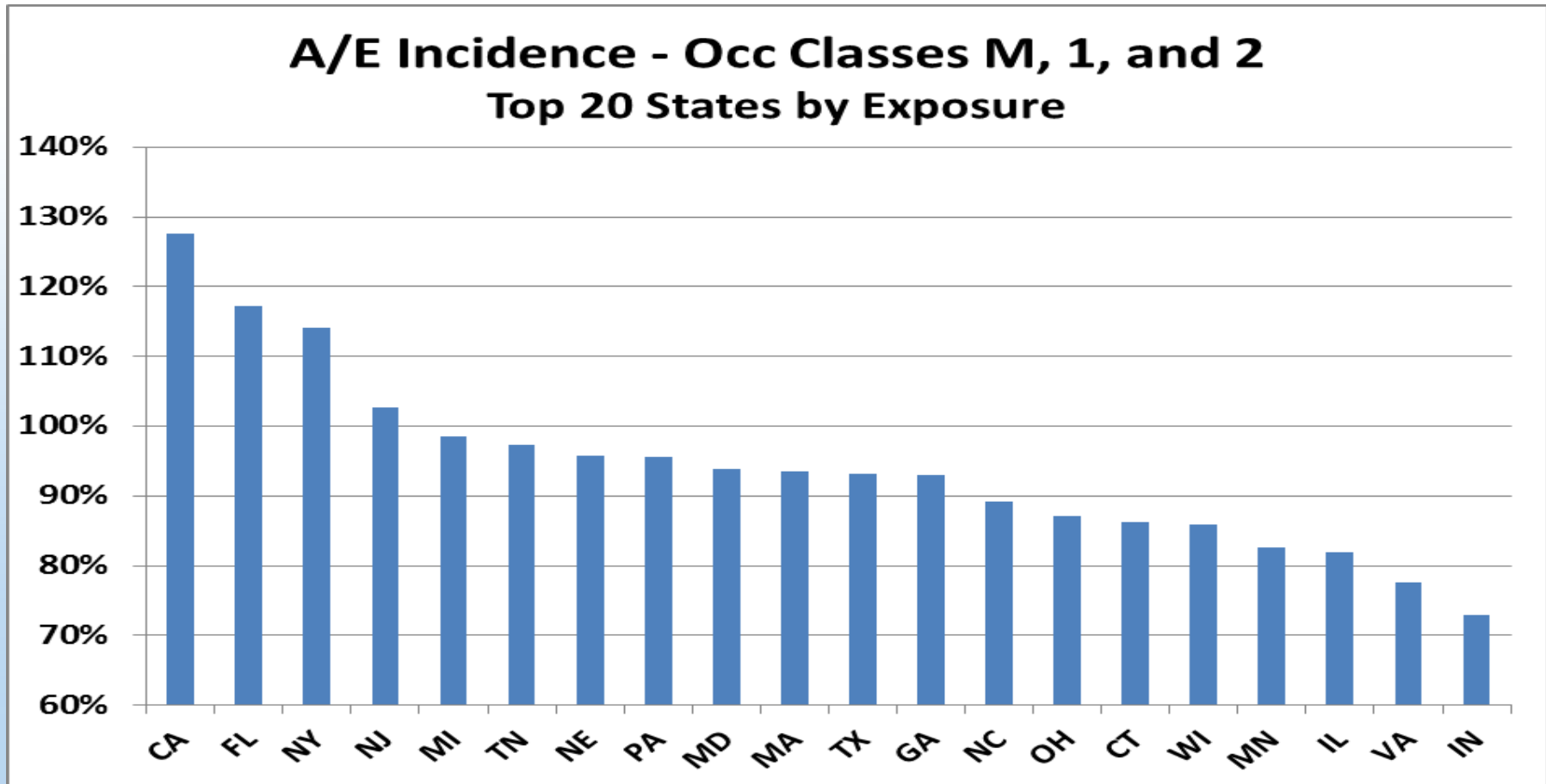
Claim Incidence Modifiers By Market For Valuation Table Only

Employer Sponsored	80.0%
Individual Including Associations	105.4%

Source: IDTWG – Tables Sub-group



How Best to Reflect Incidence State Variations

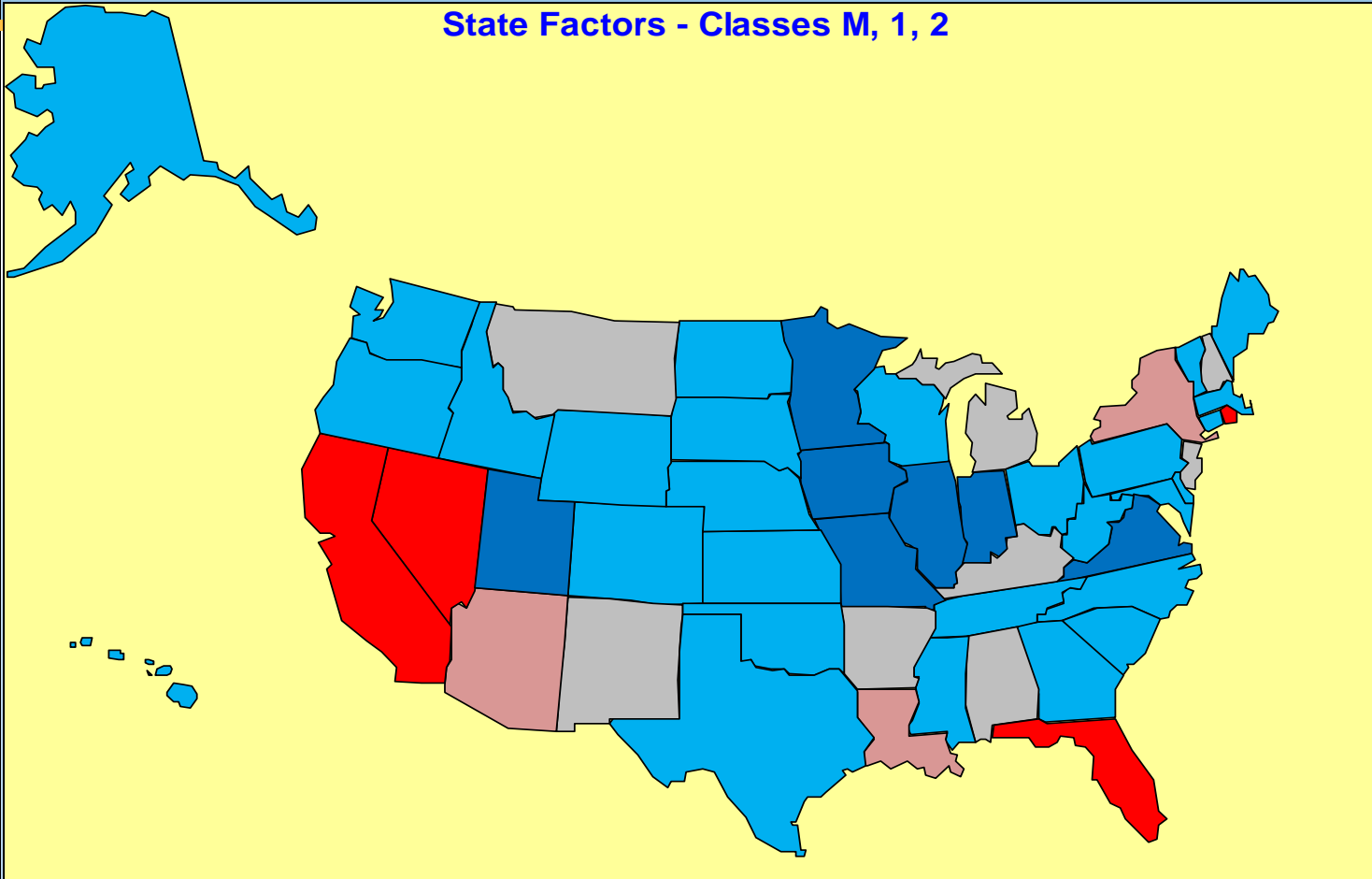


Source: IDTWG – Tables Sub-group



Map A/E Claim Incidence Groupings for All States

State Factors - Classes M, 1, 2



Factor	
Very High	125.1%
High	113.8%
Average	98.5%
Low	91.4%
Very Low	81.7%

Source: IDTWG – Tables Sub-group



Claim Termination Modifier

Applied to Base Table CTR's

Duration	With COLA Benefits		
	To Age XX	Lifetime	Short Term
Y1	0.836	0.791	1.181
Y2	0.836	0.791	1.181
Y3-5	0.836	0.791	1.181
Y6-10	0.836	0.791	1.181
Duration	Without COLA Benefits		
	To Age XX	Lifetime	Short Term
Y1	1.000	0.791	1.181
Y2	1.000	0.791	1.181
Y3-5	1.000	0.791	1.181
Y6-10	1.000	0.791	1.181

Source: IDTWG – Tables Sub-group



Claim Termination Modifier (cont.)

Applied to Base Table CTR's

Duration	Issue State Adjustment		
	California	Florida	Other
Y1	1.000	0.781	1.000
Y2	1.000	0.781	1.000
Y3-5	1.000	0.781	1.000
Y6-10	1.000	0.781	1.000

Duration	Contract Type Adjustment		
	AS	OE	Other
Y1	1.000	0.942	1.000
Y2	1.000	2.640	1.000
Y3-5	1.000	2.640	1.000
Y6-10	1.000	2.640	1.000

Source: IDTWG – Tables Sub-group



Claim Termination Modifier (Continued)

Applied to Base Table CTR's

Diagnosis	Grouping
Chronic Fatigue	Very low
Carpal Tunnel Syndrome	Very low
Immunodeficiency	Very low
Mental Disorder	Very low
Nervous System	Very low
Back	Low
Endocrine, Nutr & Metabolic	Low
Other Infect Dis	Low
Diseases of Skin	Low
Diseases of Blood	Mid
Complications of Pregnancy	Mid
Circulatory	Mid
Other Musculoskeletal	Mid

Diagnosis	Grouping
Cancer	Very high
Congenital	Very high
Digestive	Very high
Genitourinary	Very high
Alcohol and Drug	High
Other Injury	High
Respiratory	High
Toxicity	High



Claim Termination Modifier (Cont.)

Applied to Base Table CTR's

Duration	Diagnosis Adjustments				
	Very Low	Low	Mid	High	Very High
Y1	0.448	0.891	1.142	1.141	1.378
Y2	0.715	0.964	0.956	1.243	2.189
Y3-5	0.882	0.870	0.944	1.731	2.161
Y6-10	1.103	0.957	0.958	1.611	1.862

Source: IDTWG – Tables Sub-group



Use of Own Company Experience and Credibility for the New IDI Valuation Table



Credibility and Own Company Experience

- Current valuation requirements for individual disability claim reserves
- Current thinking of the Academy work group on use of company experience and credibility
- Early work on credibility for claim termination rates and incidence



Key Steps of the Project

- Define scope
 - Termination rates for claim reserves
 - Not incidence and termination for policy reserves
- Become familiar with credibility approaches used in other reserving applications
 - Group LTD
 - PBR for life insurance
 - Other



Current Status

- Discussing with other parties
 - GLTD Valuation Table Work Group
 - NAIC Health Actuarial Task Force (HATF)
- Looking at individual company A/E experience
 - Smaller numbers of claims for a typical IDI block than LTD
 - Will analyze small, medium, and large hypothetical blocks of claims with both favorable and unfavorable experience relative to the industry table



Academy Staff Contact Information

Tim Mahony

Health Policy Analyst (State)

mahony@actuary.org

202-785-7880

1850 M St., NW, Ste. 300

Washington, DC 20036

