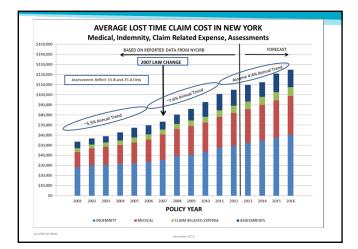


About Me

- Oliver Wyman Actuarial Consulting Melville, NY Office
- FCAS, MAAA, FCA with 28 Years in Actuarial Field
- Experienced with Workers Compensation Exposures
- 20+ Clients in New York
- Self-Insured Employers and Groups
- Health Care Systems and organizations
- Telecommunications
- Industrial
- Schools, Public Entities, etc.
- Monitoring NY WC since before the 2007 legislation

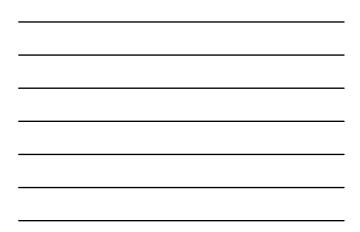


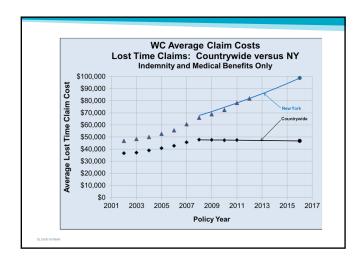




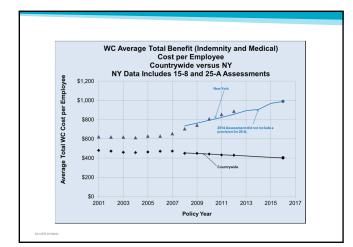


| | New York | Countrywide | New York |
|-------------------|-----------------------|------------------|----------------|
| Policy | Total | Total | to Countrywide |
| Year | Lost Time | Lost Time | Relativity |
| 2001 | 1,219 | 1,232 | 0.989 |
| 2002 | 1,142 | 1,204 | 0.949 |
| 2003 | 1,106 | 1,155 | 0.958 |
| 2004 | 1,027 | 1,094 | 0.939 |
| 2005 | 985 | 1,057 | 0.932 |
| 2006 | 947 | 1,025 | 0.924 |
| 2007 | 930 | 966 | 0.963 |
| 2008 | 913 | 881 | 1.036 |
| 2009 | 903 | 880 | 1.026 |
| 2010 | 907 | 870 | 1.043 |
| 2011 | 885 | 846 | 1.047 |
| 2012 | 884 | *840 | 1.053 |
| NY LT Cla | aim Frequency Chan | ge 2006 to 2012: | -6.6% |
| ountrywide LT Cla | aim Frequency Chan | ge 2006 to 2012: | -18.1% |
| *201 | 2 Countrywide value i | s a forecast | |











| Oregon Departmer | nt of Busir | Premium Cost less and Consumer Services inial Study | 5 |
|------------------|-------------|---|---|
| | | Average Cost | |
| RANK | STATE | per \$100 payroll | |
| 1 | CA | 3.48 | |
| 2 | СТ | 2.87 | |
| 3 | NJ | 2.82 | |
| 4 | NY | 2.75 | |
| 5 | AK | 2.68 | |
| 6 | OK | 2.55 | |
| 7 | IL | 2.35 | |
| 8 | VT | 2.33 | |
| 9 | DE | 2.31 | |
| 10 | LA | 2.23 | |
| | | | |



| | • | Benefits, Medical Ben pense per \$100 Payrol | |
|------|-------|---|--|
| | | arter 4 2015 Study | |
| | | Average Cost | |
| RANK | STATE | per \$100 payroll | |
| 1 | CA | 2.47 | |
| 2 | NY | 2.36 | |
| 3 | NJ | 2.24 | |
| 4 | DE | 1.97 | |
| 5 | СТ | 1.97 | |
| 6 | AK | 1.68 | |
| 7 | MT | 1.65 | |
| 8 | L | 1.57 | |
| 9 | LA | 1.43 | |
| 10 | VT | 1.43 | |
| | | | |

CONSIDERATIONS

- Data is from the NYCIRB and NCCI
- NCCI Countrywide Measurements are for NCCI Jurisdictions only.
- $-\,$ CA, NY, NJ, MA, PA, DE, MI, MN, WI are excluded. $-\,$ OH, WA, WY, ND are excluded.
- NY published severity data required development to ultimate value.
- Metrics presented subsequent to PY 2012 in NY and PY 2011 Countrywide are forecasts.
- Numerous judgments and assumptions were made preparing the presentation, which, while reasonable, are not absolute.
- However, it is highly unlikely that a different set of reasonable judgments and assumptions will change the key points of this presentation.

Outline of Discussion

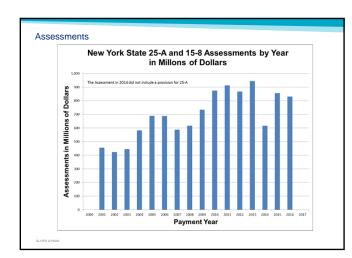
- Assessments
- Conditions Prior to 2007
- 2007 Law
- The Changes
- What Actually Happened
- Where We Are Today



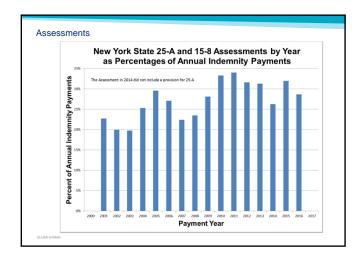
Assessments

| | | cial Disabili nge closed | | ims with da | te of loss a | fter 6/30/2007 |
|-------|-----------|---------------------------------|------------------|----------------------------------|---------------|----------------|
| | | opened Clai nge closed | | LCLAIMS | effective 1/- | 1/2014 |
| | 2009 | Insurers As 2010 \$19.0 M | 2011 \$25.6 M | | \$27.2 M | \$15.3 M |
| • IDP | → Interde | partmental | | essment bill is hi ∼\$60 M an | | ccess premium" |

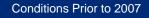














Benefit Levels had been unchanged since 1992

- Maximum weekly benefit at \$400 per week since July 1, 1992
- Minimum weekly benefit at \$40 per week since July 1, 1992

Claim Frequency Declined from 2001 through 2006

 NY LT claim frequency declined by ~22% Somewhat greater decline than the countrywide decrease of ~17%

| | NEW YORK CLAIM FREQUENCY per 100,000 workers 2015 Published NYCIRB Data | | COUNTRYWIDE CLAIM FREQUENCY per 100,000 workers 2015 NCCI Data | | | | |
|--------|---|-----------|--|--------|-----------|-----------|------|
| Policy | Total | Permanent | | Policy | Total | Permanent | |
| Year | Lost Time | Partial | PP % | Year | Lost Time | Partial | PP % |
| 2001 | 1,219 | 494 | 41% | 2001 | 1,232 | 423 | 34% |
| 2002 | 1,142 | 456 | 40% | 2002 | 1,204 | 422 | 35% |
| 2003 | 1,106 | 439 | 40% | 2003 | 1,155 | 423 | 37% |
| 2004 | 1,027 | 415 | 40% | 2004 | 1,094 | 385 | 35% |
| 2005 | 985 | 411 | 42% | 2005 | 1,057 | 383 | 36% |
| 2006 | 947 | 413 | 44% | 2006 | 1,025 | 381 | 37% |

Conditions Prior to 2007

Claim Severity Increased from 2001 through 2006

 Average LT benefit claim cost increased 28% in New York Greater increase than countrywide increase of 21%

| | Average | Policy ` | | s by Benefit (hrough 2006 Countrywide | | l. |
|----------------------------------|---------|----------|--------|--|------------|--------|
| | | NEW YORK | | co | OUNTRYWIDI | |
| Policy | IND | MED | COMB | IND | MED | COMB |
| Year | LT | LT | LT | LT | LT | LT |
| 2001 | 28,193 | 15,099 | 43,293 | 17,263 | 16,392 | 33,655 |
| 2002 | 30,091 | 16,711 | 46,802 | 17,886 | 17,837 | 35,723 |
| 2003 | 30,574 | 17,839 | 48,414 | 17,589 | 19,237 | 36,826 |
| 2004 | 31,633 | 18,458 | 50,091 | 17,886 | 18,773 | 36,659 |
| 2005 | 32,182 | 20,517 | 52,698 | 18,699 | 19,452 | 38,151 |
| 2006 | 33,694 | 21,801 | 55,495 | 19,759 | 20,939 | 40,698 |
| Cumulative Change 2001 to 2006: | 19.5% | 44.4% | 28.2% | 14.5% | 27.7% | 20.9% |
| Cumulative Change 2002 to 2006: | 12.0% | 30.5% | 18.6% | 10.5% | 17.4% | 13.9% |
| Avg. Annual Change 2001 to 2006: | 3.6% | 7.6% | 5.1% | 2.7% | 5.0% | 3.9% |
| Avg. Annual Change 2002 to 2006: | 2.3% | 5.5% | 3.5% | 2.0% | 3.3% | 2.69 |

Conditions Prior to 2007

Claim Severity Increased from 2001 through 2006

Assessments and claim expense increased at much higher rates.

| | Poli | | 2001 throug ew York | h 2006 | |
|----------------------------------|--------|--------|------------------------|---------|--------|
| | | | NEW YORK | | |
| Policy | IND | MED | Claim | | COMB |
| Year | LT | LT | Expense | Assess. | LT |
| 2001 | 28,193 | 15,099 | 3,701 | 6,401 | 53,395 |
| 2002 | 30,091 | 16,711 | 3,806 | 6,006 | 56,614 |
| 2003 | 30,574 | 17,839 | 4,340 | 6,037 | 58,790 |
| 2004 | 31,633 | 18,458 | 4,543 | 8,002 | 62,637 |
| 2005 | 32,182 | 20,517 | 5,050 | 9,515 | 67,263 |
| 2006 | 33,694 | 21,801 | 5,153 | 9,123 | 69,771 |
| Cumulative Change 2001 to 2006: | 19.5% | 44.4% | 39.2% | 42.5% | 30.7% |
| Cumulative Change 2002 to 2006: | 12.0% | 30.5% | 35.4% | 51.9% | 23.2% |
| Avg. Annual Change 2001 to 2006: | 3.6% | 7.6% | 6.8% | 7.3% | 5.5% |
| Avg. Annual Change 2002 to 2006: | 2.3% | 5.5% | 6.2% | 8.7% | 4.3% |



- Claim Severity Increased from 2001 through 2006 • Driven by Increases to Average PPD Claim Costs
- Increased Medical Utilization
- Increased Litigation
- Lifetime Non-Scheduled PPD Awards Compounded Problem
- Lifetime PPD Claims Placed Into 15-8
 –Increased Utilization Required Increases to Funding
 Assessments had to increase

Conditions Prior to 2007

PP Claims in New York Were Expensive to Start Scheduled versus Non-Scheduled PP Claims

Scheduled PP claims provide for benefits for specific durations

| Maximum Possible Compensation Scheduled Loss of Use Awards | | | | |
|---|-----|--|--|--|
| | | | | |
| Arm | 312 | | | |
| Leg | 288 | | | |
| Hand | 244 | | | |
| Foot | 205 | | | |
| Eye | 160 | | | |
| Thumb | 75 | | | |
| First Finger | 46 | | | |
| Second Finger | 30 | | | |
| Third Finger | 25 | | | |
| Fourth Finger | 15 | | | |
| Great Toe | 38 | | | |
| Other Toe | 16 | | | |

Scheduled PP claims had not been the problem

Conditions Prior to 2007 PP Claims in New York Were Expensive to Start Non-Scheduled PP claims were for "duration of disability" Duration of Disability = Lifetime benefits Non-Scheduled Indemnity Permanent Partial Claim Costs Pre-2007 Distributions New York As % of PP As % of Total As % of Total Benefits Indemnity Benefits Indemnity Benefits 2.5% 4.4% 61.3% 12.4% 12.9% 6.6% 1.6% 2.8% 39.2% 7.9% 8.3% 4.2% De 70.8% 14.3% 14.9% 100.0% 100.0% 64.0% 36.0% Medical as % of Total Benefit Costs The indemnity cost component of non-scheduled PP claims in NY accounted for ${\sim}40\%$ of TOTAL NY workers compensation benefit costs



New York State Special Disability Fund –15-8

- Five Year Waiting Period
- Five year delay to realization of increased utilization
- Assessment increases in 2006 reflects new claims with dates of loss in 2001 and prior due to waiting period - Concern over future
- If accepted, fund will pay a portion or 100% of all benefit costs
- Claim is still responsibility of insurer or self-insured employer - Once accepted, annual request for reimbursements required
- Funded by assessment process

Conditions Prior to 2007

Aggregate Trust Fund

- Applied only to death and permanent total disability claims
- Applied only to private carriers
 - Not to self-insureds
 - Not to State Insurance Fund
- Present value of benefits deposited into ATF - ATF pays claim or settles
- Impacted small portion (5%) of system costs
 - Death and permanent total disability claims are expensive, but they are only a very small portion of total lost time claims and overall system costs

Conditions Prior to 2007

Other Cost Drivers

- High litigation rate
- Antiquated, complex, inefficient system
- Low settlement rates

2007 Law: The Changes

2007 Law: The Changes

| Increase to maximum and minimum weekly benefits |
|---|
| Minimum increased from \$40 to \$100 effective July 1, 2007 |
| - 2013 law change increased minimum to \$150 effective May 1, 2013 |
| Maximum increased as follows: |

| - Maximum increase | ed as follows: |
|--------------------|---------------------|
| - 06/30/2007 | \$400 |
| - 07/01/2007 | \$500 |
| - 07/01/2008 | \$550 |
| - 07/01/2009 | \$600 |
| - 07/01/2010 | \$739.83 = 2/3 SAWW |
| | |

- 07/01/2015 \$844.29

2007 Law: The Changes

- Duration limits on non-scheduled permanent partial claims
- Eliminates lifetime awards for all but most serious claims
- 225 weeks to 525 weeks
- Effective March 13, 2007

2007 Law: The Changes

- Close the Special Disability Fund (15-8)
- Theoretically, cost neutral
 - Insurers and Self-Insured Entities responsible for all costs, but assessments will decrease
- In theory, more efficient.
- Only problem is runoff must be funded.

2007 Law: The Changes

- Expand Aggregate Trust Fund to permanent partial disability claims - Material change in that now ATF includes most claims
- Still applies only to private carriers

2007 Law: The Changes

- Medical Treatment Guidelines
- Expected savings
- Not implemented until 2010
- Other elements of medical benefits implemented at time of law change

2007 Law: The Changes

Official Pricing Approved by New York Department of Financial Regulation

- Overall impact of law change was a 17.1% cost decrease

- Key Assumption: The cost of permanent partial claims would DECREASE by approximately 33%
- Decrease to permanent partial claim costs would more than offset benefit increases

2007 Law: What Actually Happened

| | | υ, | Effective Date in New York |
|---------------|---------------|--------------------|--|
| Effective | Approved | Cumulative | |
| Date | Change | Change | |
| 10/1/2007 | -18.4% | -18.4% | |
| 10/1/2008 | -6.4% | -23.6% | |
| 10/1/2009 | 4.5% | -20.2% | |
| 10/1/2010 | 7.7% | -14.0% | |
| 10/1/2011 | 9.1% | -6.2% | |
| 10/1/2012 | 0.0% | -6.2% | Filed Increase was +11.5% |
| 10/1/2013 | 9.5% | 2.7% | Filed Increase was +16.9% |
| 10/1/2014 | 0.0% | 2.7% | Filed Increase was +6.8% Actuarial Indication was +17.4% |
| 10/1/2015 | 5.9% | 8.8% | Filed Increase was +6.9% Actuarial Indication was +15.8% |
| 10/1/2007 to | 10/1/2015 | 18.9% 🗲 | Cumulative Change from 10/1/07 Based on 10/1/15 Actuarial Indication |
| 10/1/2008 to | 10/1/2015 | 45.7% 🗲 | Cumulative Change from 10/1/08 Based on 10/1/15 Actuarial Indication |
| ss Cost: Inde | mnity + Medic | al + Loss Adjustme | ant Expense |



• What went wrong?

- Utilization and Healing Period

2007 Law: What Actually Happened

- Utilization reflects the willingness to utilize the system either by filing a claim or increasing duration of disability - Healing period is the time spent on disability prior to receiving an
- impairment rating

Consensus view from Oliver Wyman clients: "More employees using the system for a much longer

period of time at a much higher weekly benefit cost"

| Evidence: Frequency – "More emplo – Permanent partial percentage of I | , , , |
|--|----------------------------|
| NEW YORK CLAIM FREQUENCY | NEW YORK CLAIM FREQUENCY |
| per 100,000 workers | per 100,000 workers |
| 2014 Published NYCIRB Data | 2015 Published NYCIRB Data |

| Policy Year | F+PTD | PPD | TTD | Total LT | PPD % | Policy Year | F+PTD | PPD | TTD | Total LT | PPD % |
|----------------|-------|-----|-----|-------------|-------|----------------|-------|-----|-----|-------------|-------|
| 2002 | 7 | 456 | 679 | 1,142 | 40% | | | | | | |
| 2003 | 7 | 440 | 661 | 1,108 | 40% | 2003 | 7 | 439 | 660 | 1,106 | 40% |
| 2004 | 5 | 419 | 606 | 1,030 | 41% | 2004 | 6 | 415 | 607 | 1,028 | 40% |
| 2005 | 5 | 416 | 567 | 988 | 42% | 2005 | 5 | 411 | 569 | 985 | 42% |
| 2006 | 5 | 425 | 523 | 953 | 45% | 2006 | 5 | 413 | 529 | 947 | 44% |
| 2007 | 4 | 451 | 484 | 939 | 48% | 2007 | 4 | 431 | 494 | 929 | 46% |
| 2008 | 5 | 489 | 433 | 927 | 53% | 2008 | 5 | 461 | 447 | 913 | 50% |
| 2009 | 4 | 509 | 413 | 926 | 55% | 2009 | 5 | 463 | 436 | 904 | 51% |
| 2010 | 3 | 537 | 403 | 943 | 57% | 2010 | 4 | 465 | 439 | 908 | 51% |
| 2011 | 3 | 552 | 386 | 941 | 59% | 2011 | 3 | 441 | 441 | 885 | 50% |
| | | | | | | 2012 | 3 | 360 | 522 | 885 | 41% |

| 2007 Law: \ | What Actual | у Нарре | ned | | | | | |
|-------------|-------------|---|--------------|----------------|----|--|--|--|
| Evidence: | Frequency – | "More e | mployees us | ing the system | 33 | | | |
| | | | CLAIM FREQU | ENCY | l | | | |
| | | per 100,000 workers 2014 Published NYCIRB Data | | | | | | |
| | | | | All PPD and | | | | |
| | Policy | Total | All PPD and | TTD>52 Weeks | | | | |
| | Year | Lost Time | TTD>52 Weeks | Percentage | | | | |
| | 2001 | 1,219 | 494 | 41% | | | | |
| | 2002 | 1,142 | 456 | 40% | | | | |
| | 2003 | 1,108 | 440 | 40% | | | | |
| | 2004 | 1,030 | 419 | 41% | | | | |
| | 2005 | 988 | 416 | 42% | | | | |
| | 2006 | 953 | 425 | 45% | | | | |
| | 2007 | 939 | 451 | 48% | | | | |
| | 2008 | 927 | 489 | 53% | | | | |
| | 2009 | 926 | 509 | 55% | | | | |
| | 2010 | 943 | 537 | 57% | | | | |
| | 2011 | 941 | 552 | 59% | | | | |



- Evidence: Longer Healing Period "for a much longer period of time"
 NYWCB: Prior to 2007 → 4.8 years
 - Post 2007 → 6.4 years (2013 measurement)
 - At \$600 per week, this adds \$50,000 to a claim
- Why?
- Economically feasible for claimant to remain out on TTD due to high maximum benefit
- Claimant attorneys acting to delay impairment rating
- PP duration limit clock starts at impairment rating
- Does not include healing period
- Insurers may be acting to delay impairment rating to avoid ATF deposit
- The lack of a duration limit on TTD is a fundamental defect in NYS Law

| Ą | Avera | | /Years | laim Cost 2001 thro ew York | | |
|----------------------------|---------------|----------|-----------|-----------------------------------|---------|------------|
| | olicy Year | ND LT | MED LT | Claim Expense | Assess. | COMB LT |
| 2 | 2001 | 28,193 | 15,099 | 3,701 | 6,401 | 53,395 |
| 2 | 2002 | 30.091 | 16,711 | 3,806 | 6,006 | 56,614 |
| 2 | 2003 | 30,574 | 17,839 | 4,340 | 6,037 | 58,790 |
| 2 | 2004 | 31,633 | 18,458 | 4,543 | 8,002 | 62,637 |
| 2 | 2005 | 32,182 | 20,517 | 5,050 | 9,515 | 67,263 |
| 2 | 2006 | 33,694 | 21,801 | 5,153 | 9,123 | 69,771 |
| | 2007 | 35,546 | 25,044 | | | 73,362 |
| 2 | | 39,334 | 26,641 | 5,025 | 9,243 | 80,243 |
| | | | 28,477 | 5,596 | 11,366 | 85,886 |
| | | 43,701 | 28,660 | 5,806 | 14,553 | 92,720 |
| | 2011 | 47,493 | 30,641 | 6,357 | 16,148 | 100,639 |
| 2 | 2012 | 49,682 | 32,189 | 7,266 | 15,699 | 104,836 |
| Change from 2006 through 2 | 2012 | 47% | 48% | 41% | 72% | 50% |

| Г | | | | | | | |
|---|---------------|-----------|------------------|------------------|------------------|------------------|-------------------|
| | | | | Time Clair | | | |
| | | New | York Comp | pared to NCC | CICountrywide | Values | |
| | Policy | Ne | w York Stat | te | NCC | Countryw | ide |
| | Year | Indemnity | Medical | Total | Indemnity | Medical | Total |
| | | | | | | | |
| | 2001 2002 | | 15,099 16,711 | 43,293 46,802 | 17,263 17,886 | 19,237 18,773 | 36,500 36,659 |
| | 2002 | | 17.839 | 48,414 | 17,589 | 19,452 | 37,041 |
| | 2003 | | 18,458 | 50,091 | 17,589 | 20.939 | 38,825 |
| | 2004 | | 20,517 | 52,698 | 18,699 | 20,959 | 40,751 |
| | 2005 | | 21,801 | 55,495 | 19,759 | 22,052 | 40,751 |
| | 2006 | | 21,801 | 55,495 60,590 | 21.259 | 23,017 | 42,776 |
| | 2007 | | 25,044 | 65,975 | 21,259 | 25,386 | 47,744 |
| 1 | 2008 | | 28,641 | | 22,358 | | 47,744 |
| 1 | 2009 | | 28,660 | | 21,645 | | 47,808 |
| | 2010 | | 30.641 | 72,302 | 21,361 | 26,265 | 47,450 |
| | 2011 | | 32,189 | 81.871 | 21,103 | 26,203 | 48,306 |
| | 2012 | 40,002 | 02,100 | 01,011 | 21,400 | 20,000 | 40,000 |
| | 2001 to 2006: | 20% | 44% | 28% | 14% | 20% | 16% |
| | 2006 to 2012: | | 48% | 48% | 8% | 17% | 13% |
| | | | *NCCI 2012 v | alues are fore | casts because 2 | 012 data is n | ot yet available. |



- Hardship clause untested
- The law allows for claimants with an 80% or more loss of earnings capacity to apply for hardship permanent total disability.
- Concern is that a large proportion of claimants will, near the end of their claim, apply and receive hardship status.
- If this occurs, the impact on long term costs could be significant:
 Permanent Partial disability claims with limited duration will transform into lifetime permanent total disability claims.
- $\,-\,$ Data to date shows this is potentially NOT a material concern.
- Very low number of claims with ratings at 80% level.
- BUT: Risk still exists because many claims are on extended TTD durations with ratings yet to be determined.

2007 Law: What Actually Happened

- Aggregate Trust Fund
- Expanded to include permanent partial disability claims
- Insurers want to avoid ATF deposit
 - May be acting to extend healing period as well
 Gives claimant attorneys greater leverage
- Claimants want to avoid ATF deposit
 - ATF will settle claims at amounts lower than insurer might have settled, and keep the difference
 - Oliver Wyman clients assert leverage generally favors claimants
 - Result is higher costs that are difficult to quantify
- Original pricing gave no net impact : 0%

2007 Law: What Actually Happened

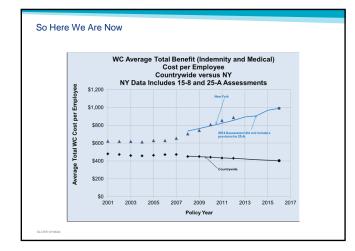
- Medical Treatment Guidelines
- Implemented in 2010
- Favorably received
- Consensus is they are acting to control costs

Summary

- Greater number of more expensive claims
- Maximum weekly benefit materially increased utilization
- Permanent partial percentage is growing
- Healing Period extended 1 to 2 years
- Medical Costs are higher, possibly as part of cost to justify longer healing periods
- Legal and other claim related expenses are higher, possibly as part of cost to justify longer healing period
- ATF increases claimant leverage
- Hardship clause on duration caps is still a risk
- Medical Treatment Guidelines Favorably Received

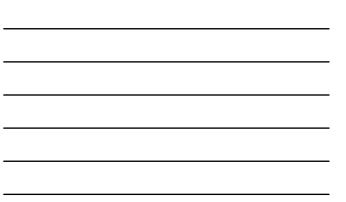








| | | | Benefits, Medical Ben | |
|-----|-------|----------|------------------------|--|
| | | | pense per \$100 Payrol | |
| Oil | vervv | yman Qua | arter 4 2015 Study | |
| | | | Average Cost | |
| R | ANK | STATE | per \$100 payroll | |
| | 1 | CA | 2.47 | |
| | 2 | NY | 2.36 | |
| | 3 | NJ | 2.24 | |
| | 4 | DE | 1.97 | |
| | 5 | СТ | 1.97 | |
| | 6 | AK | 1.68 | |
| | 7 | MT | 1.65 | |
| | 8 | IL. | 1.57 | |
| | 9 | LA | 1.43 | |
| | 10 | VT | 1.43 | |



OLIVER WYMAN