

# Actuarial Committee

## Meeting Agenda

| Date   | Time    | Location  | Staff Contact     |
|--|---------|---|-------------------|
| June 14, 2019  | 9:30 AM | WCIRB California<br>1221 Broadway, Suite 900<br>Oakland, CA | David M. Bellusci |
| 1221 Broadway, Suite 900 • Oakland, CA 94612 • 415.777.0777 • Fax 415.778.7007 • www.wcirb.com • wcirb@wcirb.com |         |   |                   |

Released: June 7, 2019

To Members of the Actuarial Committee, WCIRB Members and All Interested Parties:

### I. Approval of Minutes

Meetings held on March 18, 2019 and April 2, 2019

### II. Working Group Meeting Summaries

Claims Working Group Meeting held March 28, 2019

Actuarial Research Working Group Meeting held April 22, 2019

### III. Unfinished Business

A. AC16-06-05: Update on Medical Severity Trends by Component

B. AC17-12-04: Earthquake Study

C. AC18-06-03: Classification Payroll Limitations

### IV. New Business

A. AC19-06-01: 3/31/2019 Experience – Review of Methodologies

B. AC19-06-02: 1/1/2020 Regulatory Filing – Experience Rating Plan Values

C. AC19-06-03: Impact of Pharmaceutical Cost Reductions on Loss Development

### V. Matters Arising at Time of Meeting

### VI. Next Meeting Date: August 1, 2019

### VII. Adjournment

#### Antitrust Notice

As members of the Workers' Compensation Insurance Rating Bureau of California, you are bound, when involved in meetings or other activities of the WCIRB California, to limit your actions (and discussions other than social ones) to matters relating to the business of the WCIRB California. Matters that do not relate directly to WCIRB California business should be avoided. Members should particularly avoid discussions or conduct that could be construed as intended to affect competition (or access to markets). Thus, as members, you should not discuss or pursue the business interests of individual insurers or others, including, in particular, the plans of individual members involving, or the possibility or desirability of (a) raising, lowering, or stabilizing prices (premiums or commissions); (b) doing business or refusing to do business with particular, or classes of, insurers, reinsurers, agents, brokers, or insureds, or in particular locales; or (c) potential actions that would affect the availability of products or service either generally or in specific markets or locales.

**Notice**

The information in this Agenda was developed by the Workers' Compensation Insurance Rating Bureau of California (WCIRB) for the purpose of assisting the WCIRB Actuarial Committee. The WCIRB cannot make any guarantees if this information is used for any other purpose and the WCIRB shall not be liable for any damages, of any kind, whether direct, indirect, incidental, punitive or consequential, arising from the use of or reliance upon this information for any other purpose.

© 2019 Workers' Compensation Insurance Rating Bureau of California. All rights reserved.

No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, without limitation, photocopying and recording, or by any information storage or retrieval system without the prior written permission of the Workers' Compensation Insurance Rating Bureau of California (WCIRB), unless such copying is expressly permitted in this copyright notice or by federal copyright law. No copyright is claimed in the text of statutes and regulations quoted within this work.

Each WCIRB member company, including any registered third party entities, (Company) is authorized to reproduce any part of this work solely for the following purposes in connection with the transaction of workers' compensation insurance: (1) as necessary in connection with Company's required filings with the California Department of Insurance; (2) to incorporate portions of this work, as necessary, into Company manuals distributed at no charge only to Company employees; and (3) to the extent reasonably necessary for the training of Company personnel. Each Company and all agents and brokers licensed to transact workers' compensation insurance in the state of California are authorized to physically reproduce any part of this work for issuance to a prospective or current policyholder upon request at no charge solely for the purpose of transacting workers' compensation insurance and for no other purpose. This reproduction right does not include the right to make any part of this work available on any website or any form of social media.

Workers' Compensation Insurance Rating Bureau of California, WCIRB, WCIRB California, WCIRB Connect, WCIRB Inquiry, WCIRB CompEssentials, X-Mod Direct, eSCAD, Comprehensive Risk Summary and the WCIRB California logo (WCIRB Marks) are registered trademarks or service marks of the WCIRB. WCIRB Marks may not be displayed or used in any manner without the WCIRB's prior written permission. Any permitted copying of this work must maintain any and all trademarks and/or service marks on all copies.

To seek permission to use any of the WCIRB Marks or any copyrighted material, please contact the WCIRB at [customerservice@wcirb.com](mailto:customerservice@wcirb.com).

**Claims Working Group**

# Meeting Summary

To: Participants of the Claims Working Group  
Date: April 17, 2019

---

**RE: Summary of March 28, 2019 Meeting**

## **Discussion Topics**

At the meeting, the following topics were discussed.

### **1. First Quarter 2019 Review of Diagnostics**

The meeting materials included the WCIRB's diagnostic exhibits that are reviewed by the Actuarial Committee and Claims Working Group on a semi-annual basis. Among the diagnostics discussed by the Working Group were the following:

- a. Statewide indemnity claim frequency has begun to decrease since 2015 after being steady for several periods. A member suggested the decrease may in part be related to injured workers being somewhat less likely to file an indemnity claim and collect relatively lower indemnity benefits rather than earning their normal wages with opportunities for overtime wage in this very high employment economy.
- b. Lien filings continue to decrease since the enactment of Senate Bill No. 1160 (SB 1160) and Assembly Bill No. 1244 (AB 1244) in 2017. A member noted that that the number of lien filings may continue to decrease as fewer physicians appear to be willing to provide out-of-network treatment on a lien basis.
- c. Claim closures continue to increase and accelerate. The Working Group discussed several key factors which may be driving the acceleration. These factors include (1) a reduction in the number of liens filed as outstanding liens often result in claims remaining open; (2) a shift in claims handling for both the insurer and the claimant and their attorney with an increased focus on settling claims; and (3) continued reductions in opioid use.
- d. The average permanent disability rating has continued decreasing since 2008. The Working Group suggested that the decrease may be driven by the accelerating settlement rates of permanent disability claims, decreasing opioid usage, and fewer spinal surgeries.
- e. While the enactment of Senate Bill No. 863 (SB 863) increased indemnity benefits in 2013 and 2014, the overall indemnity costs did not significantly increase at the level expected. The Working Group suggested several factors which may have impacted changes in indemnity costs such as: (1) reducing rates of spinal surgeries, which required extensive recovery periods, (2) workers returning to work more quickly with a very healthy economy and

## Meeting Summary

Date: April 17, 2019

(3) employers' increasing willingness to accommodate injured workers to enable them to return to work during this period of very high employment levels.

- f. The ratio of eligible independent medical review (IMR) on open claims continues to increase during 2018. A member noted that the increase is in part driven by certain applicant attorney firms streamlining the IMR submission process with some firms submitting virtually all utilization review (UR) denials for IMR.

### 2. Update on Legislative Cost Monitoring

Staff presented the Working Group with updates related to SB 863, SB 1160 and AB 1244. Staff noted the preliminary effects of SB 1160 related to utilization review and AB 1244 related to the Medical Treatment Utilization Schedule, both effective January 1, 2018 based on the first six months of information. The Working Group was advised that very early indications of post-formulary pharmaceutical costs suggested continued cost decreases and the early indications on the cost of medical services provided in the first 30 days after the implementation of SB 1160 suggests that there may be some increases in the level of physical therapy being provided during this period. The Working Group was informed that the evaluations of SB 1160 and AB 1244 will be updated once a full year of data becomes available.

### 3. Update on Medical Severity Trends

Staff presented an updated analysis on the medical severity trends by medical component using medical transaction information through June 30, 2018 (service year (SY) 2018). The Working Group was advised that the share of total medical payments for pharmaceuticals decreased by about 75% from the second half of SY2012 to the first half of SY2018, while that of other service categories increased modestly in recent years. Staff noted that the sharp decline in the pharmaceutical payment share was driven by a number of factors including (1) legislative and policy changes intended to monitor and regulate prescription drug utilization such as independent medical review and the drug formulary, (2) reduced overall prescribing and opioid prescribing in particular, (3) public awareness of the adverse effects of opioids, (4) reduced fee schedules for generic drugs (also known as the "Average Federal Upper Limit") implemented in 2016, and (5) indictments of providers for fraud.

Staff summarized the cumulative changes in shares of medical costs for a number of physician service categories from the second half of 2012, and noted a sharp increase in paid per transaction for Evaluation & Management, Physical Therapy and Other Medicine, and a large drop in payments per transaction for major Surgery, Radiology and Anesthesia services. It was noted that these changes were as expected with the completion of the four-year transition to Resource-Based Relative Value Scale in 2017.

### 4. Legislative, Regulatory and Judicial Update

The Working Group reviewed pending legislation in 2019 as provided in the meeting materials as well as recent amendments to bills that occurred after the distribution of the materials. Working Group members identified Assembly Bill No. 1107 (AB 1107) as potentially creating significant issues for the UR process. The latest draft of AB 1107 exempts medical treatment requested by a primary or secondary treating physician from the UR process when the employee suffers a chronic condition, the employer has authorized treatment previously, and the employer fails to show a change in the employee's condition. The bill also exempts medical treatment if the employer has established a medical provider network (MPN) and the requesting physician is a

## Meeting Summary

Date: April 17, 2019

member of the MPN. Working Group members expressed concern with respect to the definition of serious chronic condition, the impact of an employer's previous authorization for treatment in differing instances, and the role of the MPN.

Working Group members also expressed concern over the latest amendments to Senate Bill No. 537 which, among other things, prohibits a physician from using race, gender, or national origin in determining the percentage of permanent disability that was caused by other factors before and subsequent to the industrial injury. Members noted that the bill could allow for a wide range of permanent apportionment decisions to be construed as potentially discriminatory and thus invalid.

With respect to regulations, the Working Group reviewed the update and discussed the potential cost impacts associated with the Division of Workers' Compensation's Physician Reporting and Utilization Review and Regulatory Amendments, specifically with respect to UR decisions to modify or deny a request for authorization of treatment based on medical necessity.

Lastly, the Working Group reviewed pending and recent judicial decisions included in the meeting materials. Working Group members recommended that staff continue tracking developments for apportionment cases following the decision in *Hikida v. Workers' Compensation Appeals Board* (2017).

**Actuarial Research Working Group**

# Meeting Summary

To: Participants of the Actuarial Research Working Group  
From: Shane Steele  
Date: May 15, 2019

---

**RE: Summary of April 22, 2019 Meeting**

**Insurer Meeting Participants Were Reminded of the Antitrust Notice**

As members of the Workers' Compensation Insurance Rating Bureau of California, you are bound, when involved in meetings or other activities of the WCIRB California, to limit your actions (and discussions other than social ones) to matters relating to the business of the WCIRB California. Matters that do not relate directly to WCIRB California business should be avoided. Members should particularly avoid discussions or conduct that could be construed as intended to affect competition (or access to markets). Thus, as members, you should not discuss or pursue the business interests of individual insurers or others, including, in particular, the plans of individual members involving, or the possibility or desirability of (a) raising, lowering, or stabilizing prices (premiums or commissions); (b) doing business or refusing to do business with particular, or classes of, insurers, reinsurers, agents, brokers, or insureds, or in particular locales; or (c) potential actions that would affect the availability of products or service either generally or in specific markets or locales.

**Discussion Topics**

At the meeting, the following topics were discussed.

**A. Retrospective Rating – Paid Loss Simulation**

The Working Group was informed that staff has begun to develop a new module for simulating paid loss development to enhance the Retrospective Rating Plan database.

The Working Group was reminded of the structure of the current incurred loss simulation model, which simulates a body of observed claims from USR report levels 3, 4, and 5 to an ultimate level. Staff noted the simulation uses empirically derived distributions for age-to-age loss development and claim closing rates. It was additionally noted that the distributions are conditioned by claim size and maturity, and that additional constraints are employed to help curtail unreasonable results.

Staff laid out the basic framework of the paid loss simulation module, which would be incorporated into the current model to jointly simulate incurred and paid loss trajectories for each claim. Paid loss development would be conditional on the claim's size and maturity, as well as the size of its reserve measured as a share of total incurred losses. Staff noted that for modeling purposes, the age-to-age claim payment would be stated as a share of the available reserve. The Working Group was informed that the basic concept was validated by grouping claims into rough bins based on claim size and reserve share and comparing distributions of age-to-age payments over time. Staff noted that the shapes of the distributions as well as the relative differences between the groups were relatively

## Meeting Summary

Date: May 15, 2019

stable over time. A Working Group member questioned how sensitive the method would be to changes in reserve adequacy. Staff noted that the simulation intentionally samples from calendar years with varying levels of reserve adequacy to reflect uncertainty in simulating claim maturities far into the future. Staff additionally noted that the largest claims and claims at later maturities are generally subject to the greatest scrutiny in the determination of case reserves.

The Working Group was reminded that in order to build development tables using claims spanning many decades, claim sizes are normalized by indexing their incurred losses to an annual threshold, referred to as a claim's JDex. The annual threshold represents the smoothed value of the largest actual claim reported by year. Staff noted that the size groups used for incurred loss modeling were determined by examining development and selecting JDex cutoff points that optimally identified differing development patterns above and below the cutoff point.

The Working Group was reminded that in order to populate the development tables a minimum number of empirical observations is required, causing adjacent size bins to be collapsed when data is sparse. This typically occurs for extremely large claims or at very late maturities. Staff noted that by further conditioning paid development on the size of the reserve, the number of total bins to populate would be significantly increased. This would lead to many more underpopulated bins being collapsed, reducing the desired level of refinement in the tables and potentially distorting results.

The Working Group was informed that staff had instead developed a method to address data sparsity by using the  $N$  closest observations to the center of the bin for any underpopulated bin. Staff noted that the key to this method was determining a distance formula that assigns low distance to groups of claims with similar paid development patterns. Staff tested paid development differences by performing Kruskal-Wallis rank tests pairwise on all sufficiently populated claim size/reserve share bins. Staff noted that paid development patterns were significantly impacted by differences in both claim size and reserve share and that the impact of differences in reserve share were consistently larger. Given differing impacts of differences in the two dimensions, staff opted to determine the appropriate distance using an elliptical formula, as opposed to using the standard circular L2 distance. The Working Group was shown that distance calculated with the formula,

$$d = \sqrt{\left(\left(\frac{s}{1}\right)^2 + \left(\frac{r}{3}\right)^2\right)}$$

where  $s$  is the distance in claim size and  $r$  is the difference in reserve share, consistently performed best. Staff also showed that the difference in claim size was the difference in JDex values, computed on a log scale. It was also noted that the use of a log scale had not mattered for the incurred loss tables as the JDex was not used as a distance, but to rank order claims by size. Staff noted that they foresee using this method in other instances with groupings across multiple dimensions and/or sparse data.

The Working Group was shown that the method was validated by performing short stop simulations of 33,244 observed claims that were open in calendar years 2010 through 2013. Open claims were used to remove any impact of claim closing from the results. Additionally, each claim's known incurred loss values were used during the simulation in order to isolate testing to just the new paid loss method. Staff showed that initial performance was volatile and showed significant year-to-year

## Meeting Summary

Date: May 15, 2019

bias. Staff noted that examination of initial results indicated that distinct paid development tables were necessary depending on whether a claim's incurred losses developed upwards, downwards, or did not develop. Additionally, claims with extreme incurred loss development needed to be handled separately. Staff noted that catastrophic incurred loss development is already handled separately in the incurred loss model. Staff showed that after these changes simulation results were unbiased and much less volatile.

A Working Group member asked what impact these changes would have on loss elimination ratios (LERs). Staff noted that, since the paid and incurred losses would be simulated jointly, they would converge at closing with no resulting change in LERs.

Given these findings, the Working Group suggested that staff provide a summary to the Actuarial Committee for its consideration.

### **B. Retrospective Rating – Paid ALAE Simulation**

The Working Group was informed that the WCIRB had begun to develop estimates of paid allocated loss adjustment expenses (ALAE) for claim simulations at all maturities. They were reminded that the current model only estimates ALAE at an ultimate level. The current method uses a static load for claims that are closed in the retro starting database and a random gamma load for claims that are open in the starting database. Both of these loads are parameterized separately by claim size. Staff noted that ALAE data used for parameterization is analyzed at an insurer level, and that data from outliers is not included in the parameterization. It was also noted that the resulting aggregate ALAE load is adjusted to the level selected for ratemaking via an off-balance factor. The Working Group was informed that the off-balance is currently large, 1.36, though not unexpected due to consistent upward trend in ALAE and definitional changes regarding the allotment of the cost of medical cost containment programs (MCCP).

The Working Group was informed that staff had identified a rough log-linear relationship between incremental paid losses and incremental paid ALAE. Staff noted that the linear relationship was very noisy (low  $R^2$  but included significant explanatory variables), but that a linear model was desirable due to its ease of implementation. A Working Group member asked staff to investigate whether paid ALAE could be better identified using either paid medical or paid indemnity, and whether this relationship changed by maturity. Staff's investigation found that the relationship between paid ALAE and paid losses was largely driven by paid medical at all maturities. While the presence or absence of an indemnity payment was predictive, most incremental indemnity payments were in a very narrow band, muting the predictive value of their actual amount. Another Working Group member noted that the current ALAE loads decrease as ultimate losses increase and questioned how that was the case if ALAE moved in proportion to paid losses. A preliminary investigation showed that given any incremental payment, less incremental ALAE would be expected as claim size (measured by total incurred losses) increases. This finding does not completely explain the Working Group member's question and this remains an open issue.

Staff showed the Working Group findings indicating differences in the relationship between paid ALAE and paid losses depending on whether the claim was closing or remained open. Medium-sized closing payments typically involved more ALAE than similarly sized payments on open claims. The opposite was true for small and large closing payments. (Small/Medium/Large represent roughly 20%/50%/30% of claims.) A Working Group member questioned how this pattern emerged if there



## Meeting Summary

Date: May 15, 2019

was a linear relationship. Staff's investigation showed this disparity is partly due to the different relationships between incremental ALAE and paid losses by total claim size discussed above and partly due to the variance and skewness structure of the distribution discussed below.

Staff indicated that the variance of the linear pattern decreased as the size of the incremental payment increased. Staff tested a model which allowed nonconstant variance to be implemented. The model fits were always significant and the increase in likelihood compared to standard regression was always significant as well. However, when this model was implemented, the variance of the results were always much too low. Further investigation revealed the underlying distributions were also skewed and the skewness was not constant by size, violating the assumptions of the model. Staff noted that more complicated models exist, but were not pursued as ease of implementation was a key reason that a linear model was pursued.

The Working Group was informed that staff foresees issues with any method that would simulate ALAE from the starting database to ultimate. The ALAE data in the starting database may reflect a different definition of M CCP than in later evaluations. Staff noted that this issue would resolve itself as time passed. Differences in the level of ALAE between the starting database and the level selected for ratemaking would either need to be explicitly addressed or handled in the off-balance. Finally, data from any identified outliers would either need to be replaced, adjusted, or handled via the off-balance.

Staff showed an alternate approach to work around these issues. This method would use the current methodology to estimate ALAE at ultimate. The ultimate ALAE would be prorated backwards in proportion to incremental paid losses. There would also be an adjustment to reflect the differences between open and closing payments discussed above based on long-term medians. Staff noted that this method was essentially a linear model with no variance, but a different "slope" for each claim simulation.

For validation, staff implemented this method on 139,444 claims with observed closings 100 times each. Staff showed that in aggregate this method was unbiased and produced accurate estimates of incremental ALAE payments for both open and closing claims. However, estimates for individual years were highly biased showing their sensitivity to the selection of the closing adjustment.

The Working Group expressed concern with creating age-by-age ALAE estimates for individual claims that would be known to have variance that did not reflect the underlying distribution. For this reason, along with the issues discussed above, this method will not be pursued at this time and staff will continue to study the treatment of ALAE.

Item AC16-06-05  
Update on Medical Severity Trends by Component

The Committee twice a year reviews a summary of changes in paid per transaction and paid transactions per claim by medical component. An update to that analysis with medical transaction data through December 31, 2018 will be presented at the meeting. Slides outlining the updated medical severity trends are attached.

# Review of Medical Severity Trends – Based on 12/31/2018 Experience Summary

- Methodology of analyzing medical severity trends
- Share of medical payments by service type
- Medical severity trends by medical service type, including additional breakdown:
  - Pharmaceuticals: opioids and non-opioids
  - Outpatient: Ambulatory Surgical Center (ASC) and hospital outpatient department
  - Medical Legal: ML102 & ML104
- Cumulative share change in medical cost severity by selected component of physician services

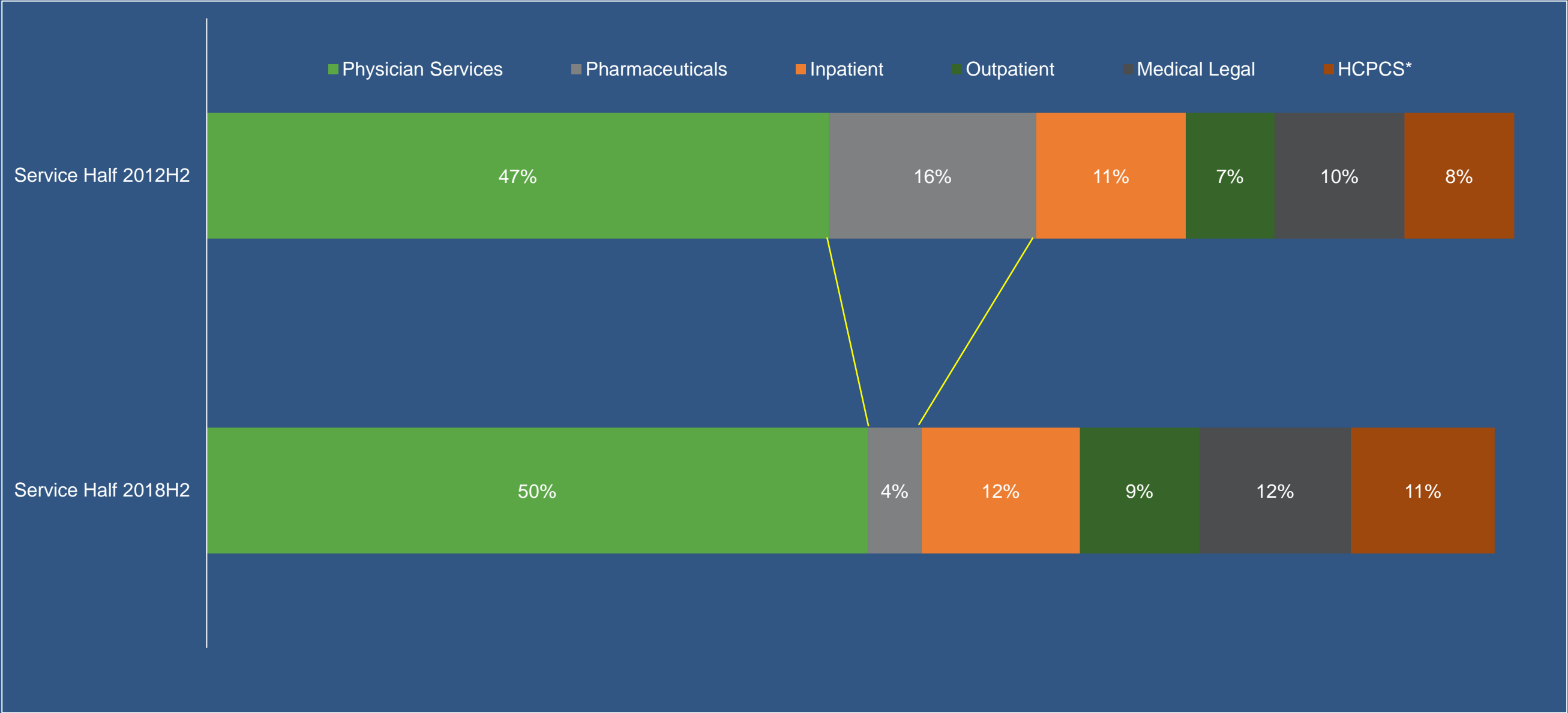
# Methodology

Analyzed WCIRB's medical transaction data

- Service dates between 7/1/2012 and 12/31/2018, controlled for transactional maturity
- Includes insurers active since 7/1/2012
- Excludes medical liens
- Pathology and Laboratory testing transactions and payments were included in Physician Services

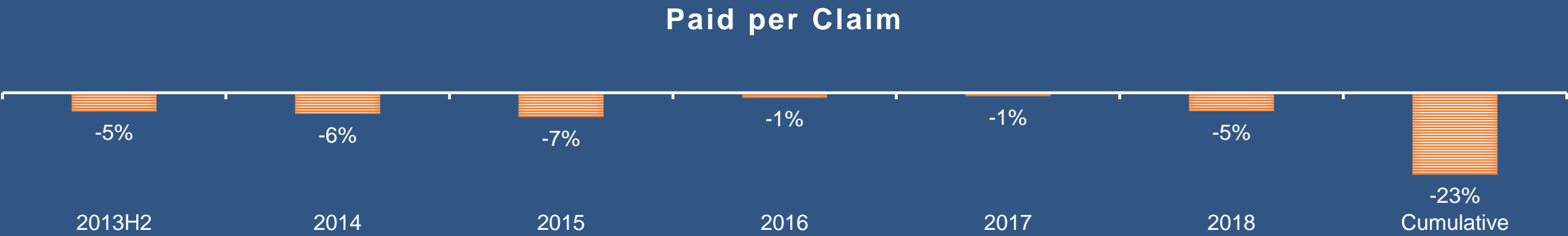
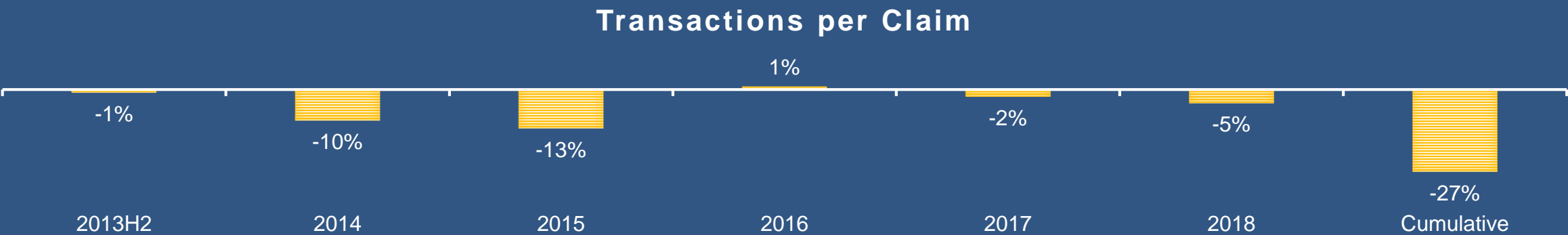
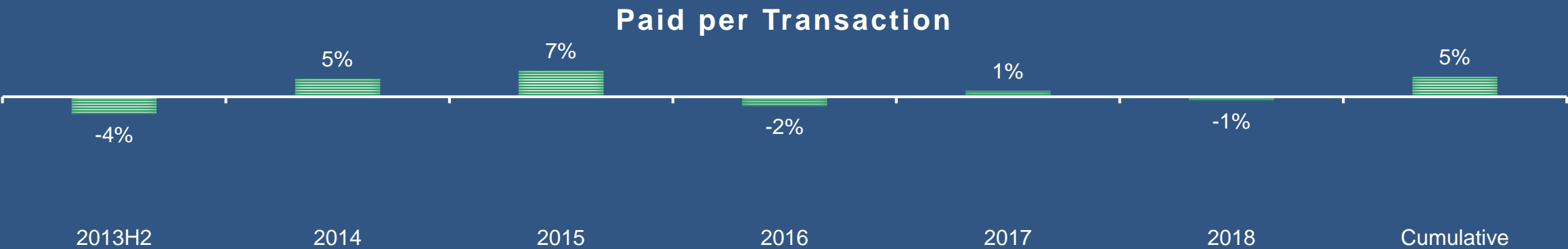
# Share of Total Medical Payments by Service Type

As of April 7, 2019



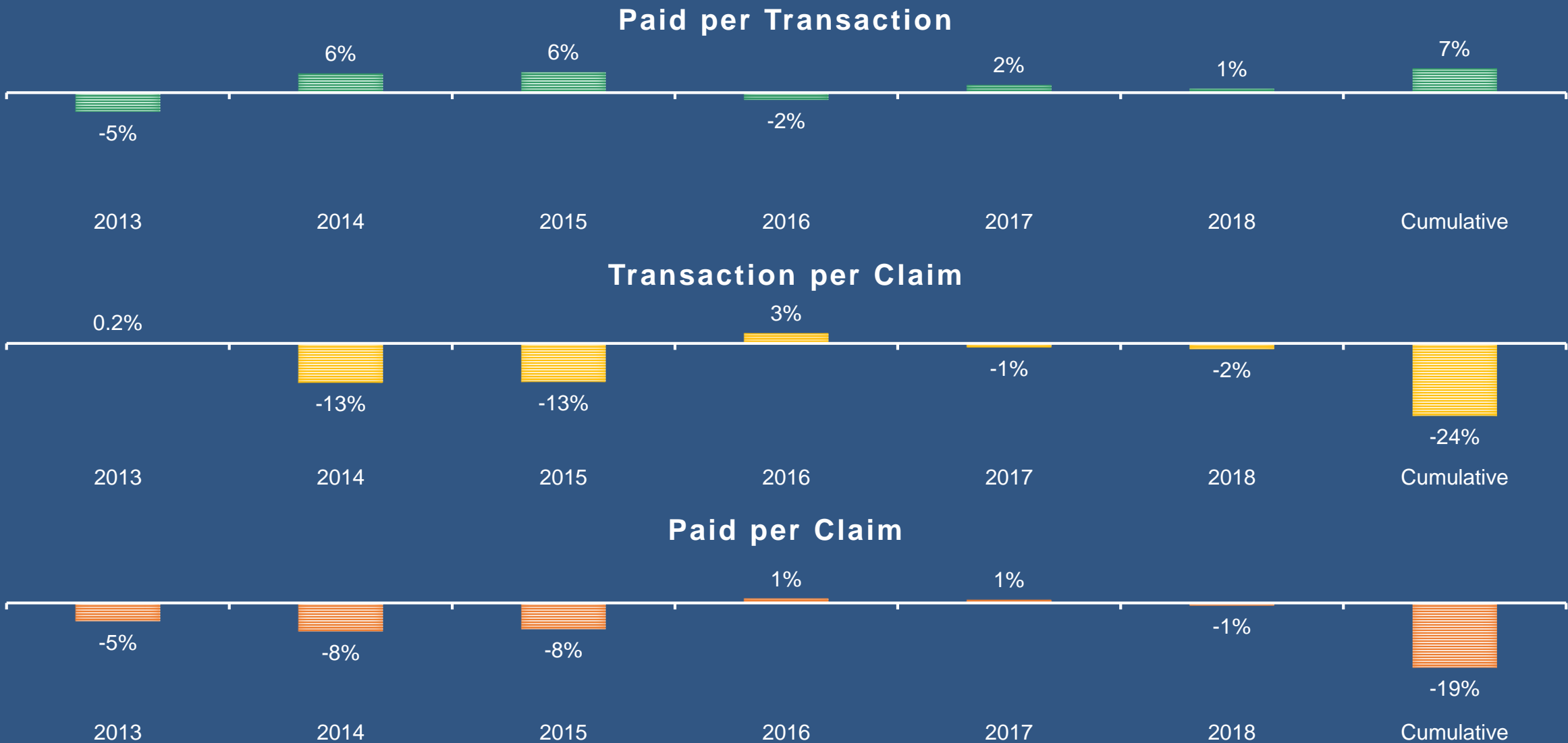
# % Change in *All Medical Services* Cost per Claim

As of April 7, 2019



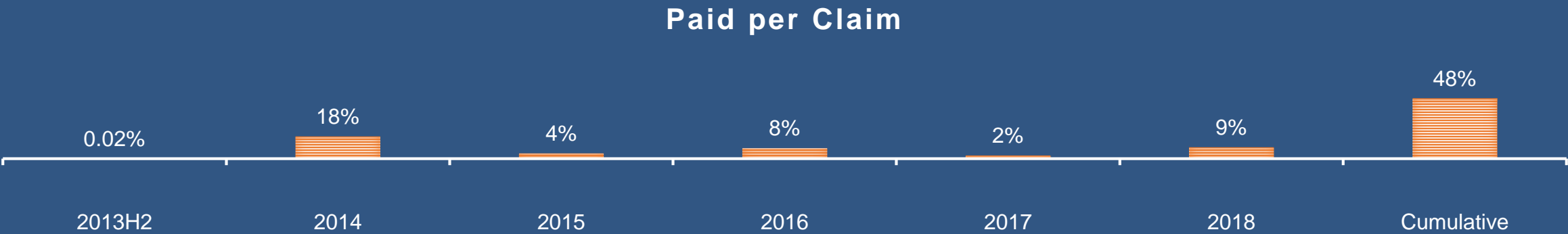
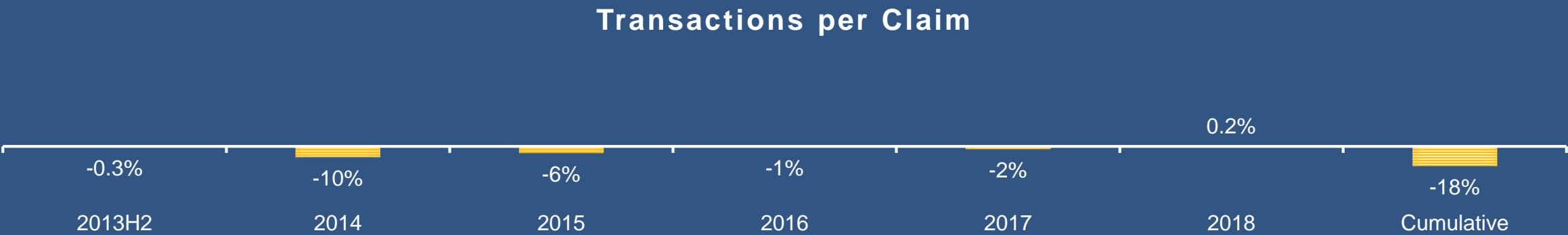
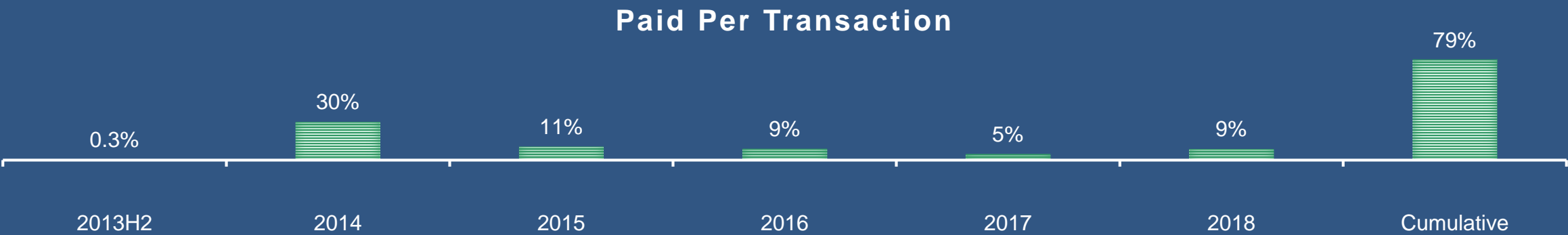
# % Change in *Physician Services* Cost per Claim

As of April 7, 2019



# % Change in *Physical Therapy* Cost per Claim

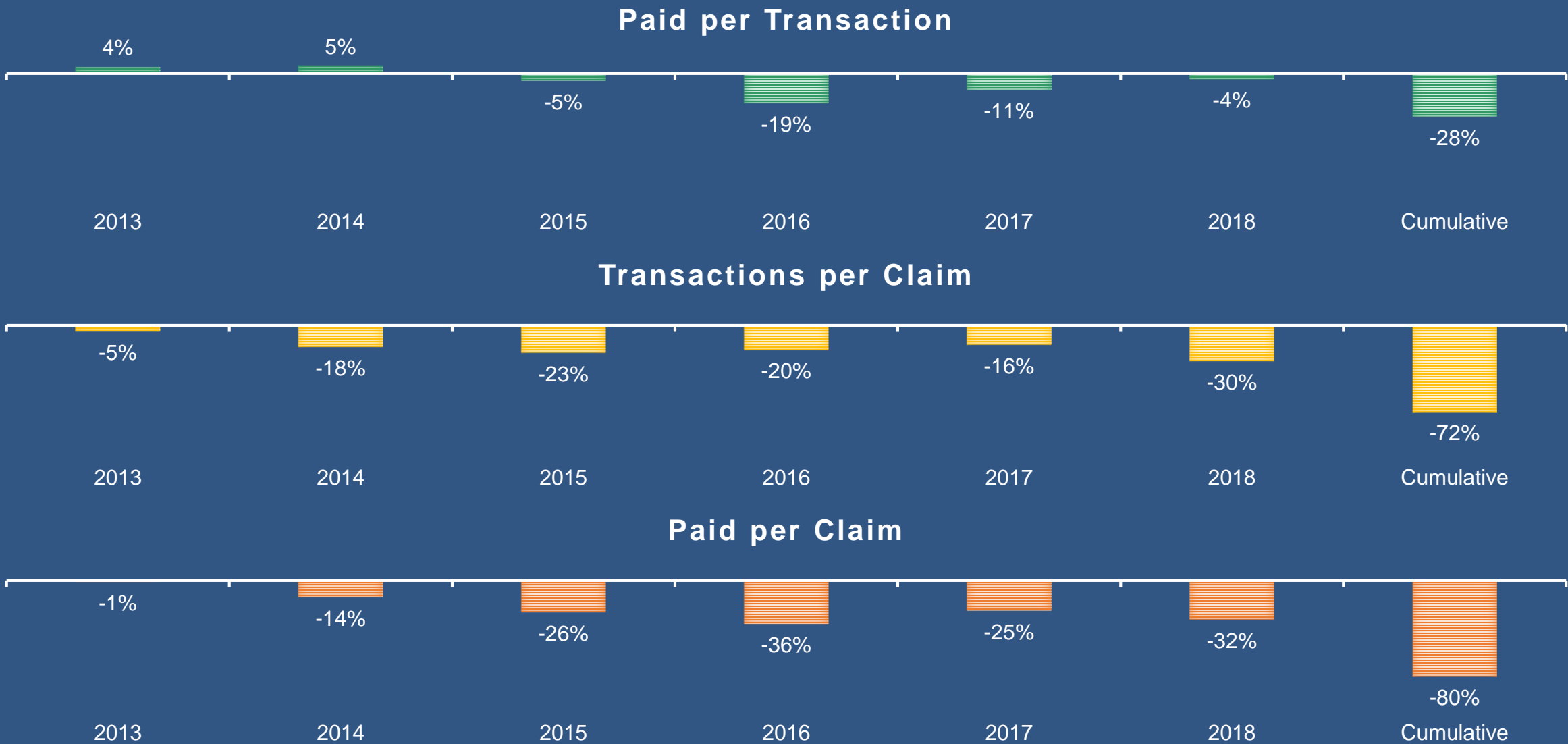
As of April 7, 2019





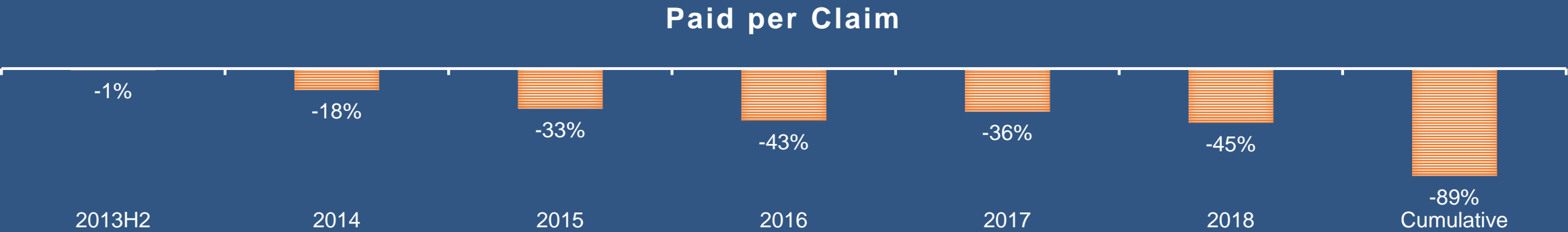
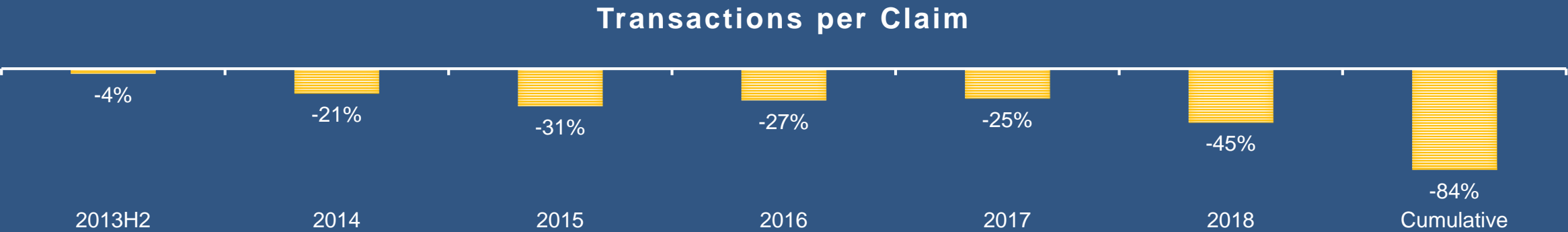
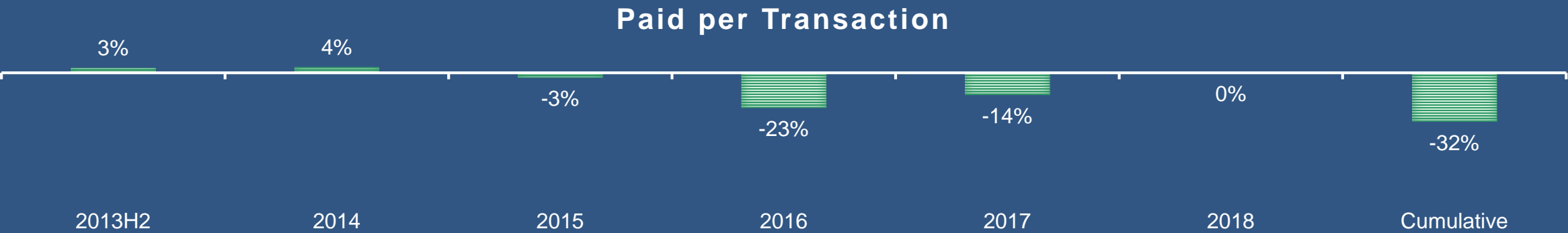
# % Change in *Pharmaceutical* Cost per Claim

As of April 7, 2019



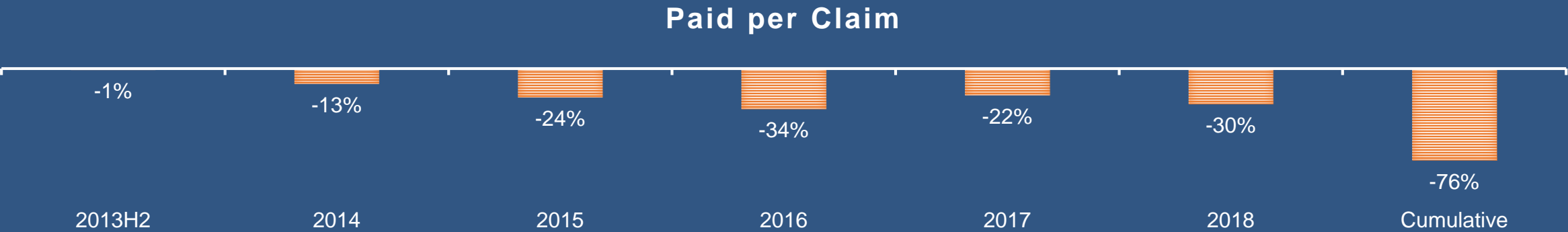
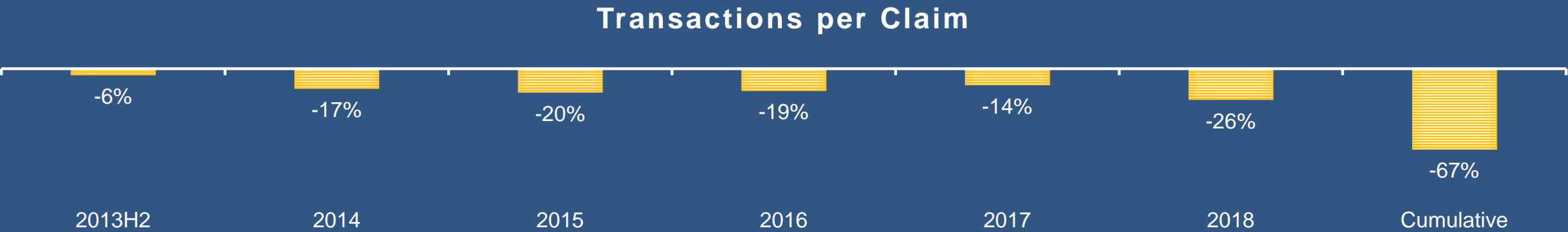
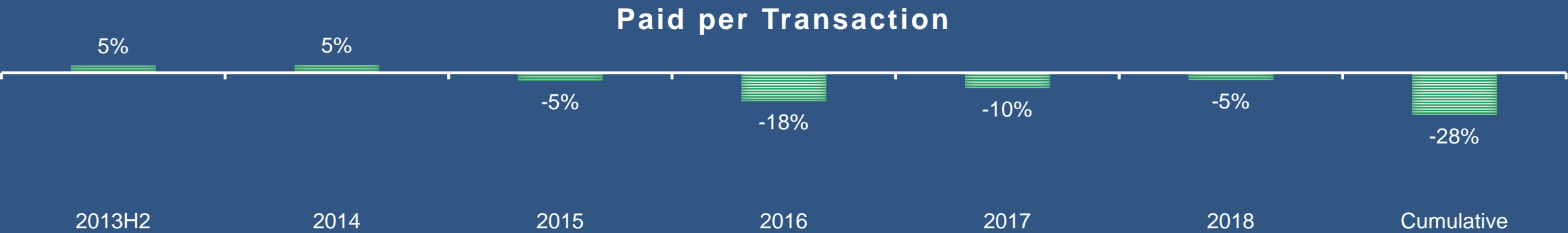
# % Change in *Opioid* Cost per Claim

As of April 7, 2019



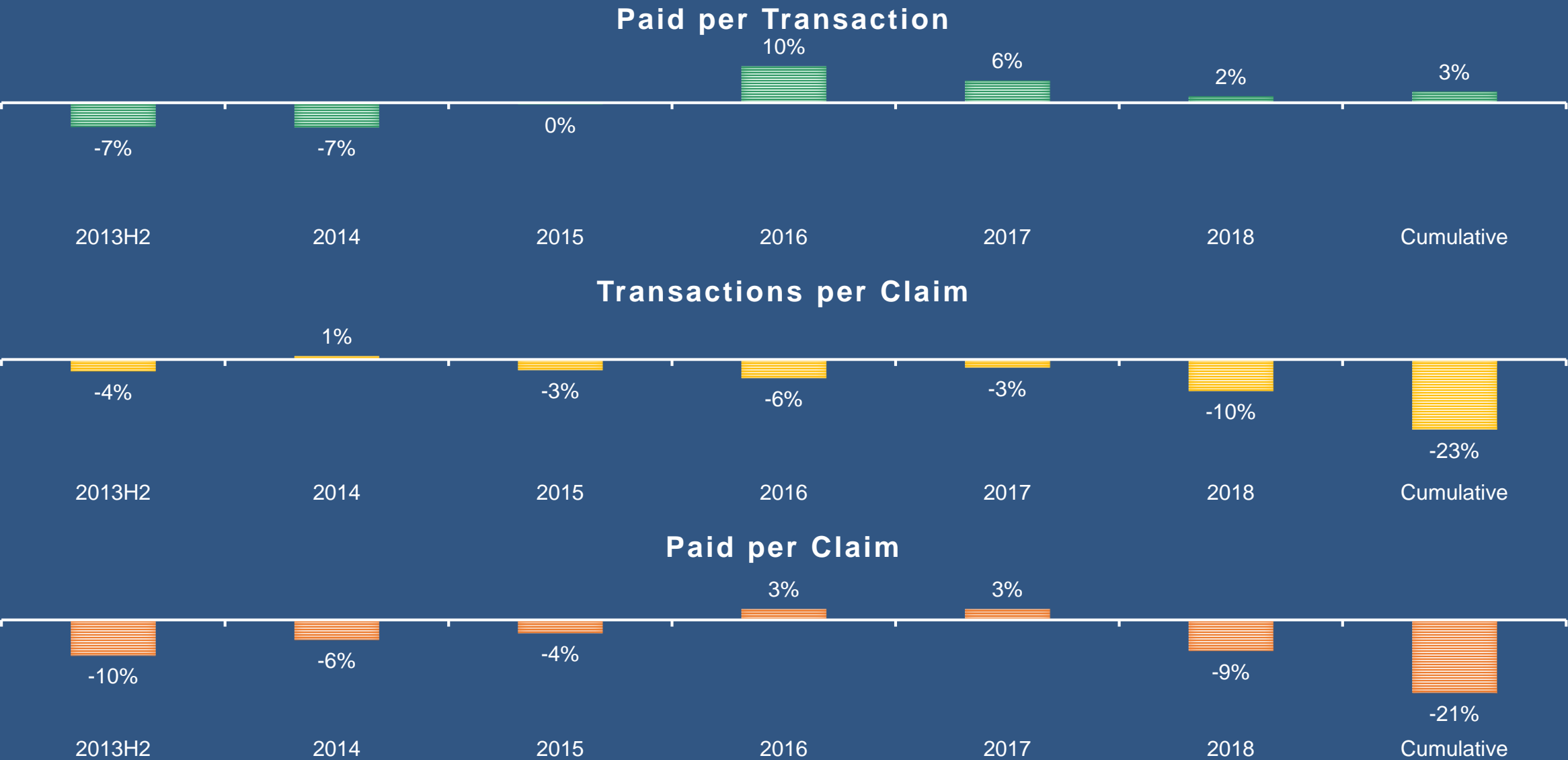
# % Change in *Non-Opioid* Cost per Claim

As of April 7, 2019



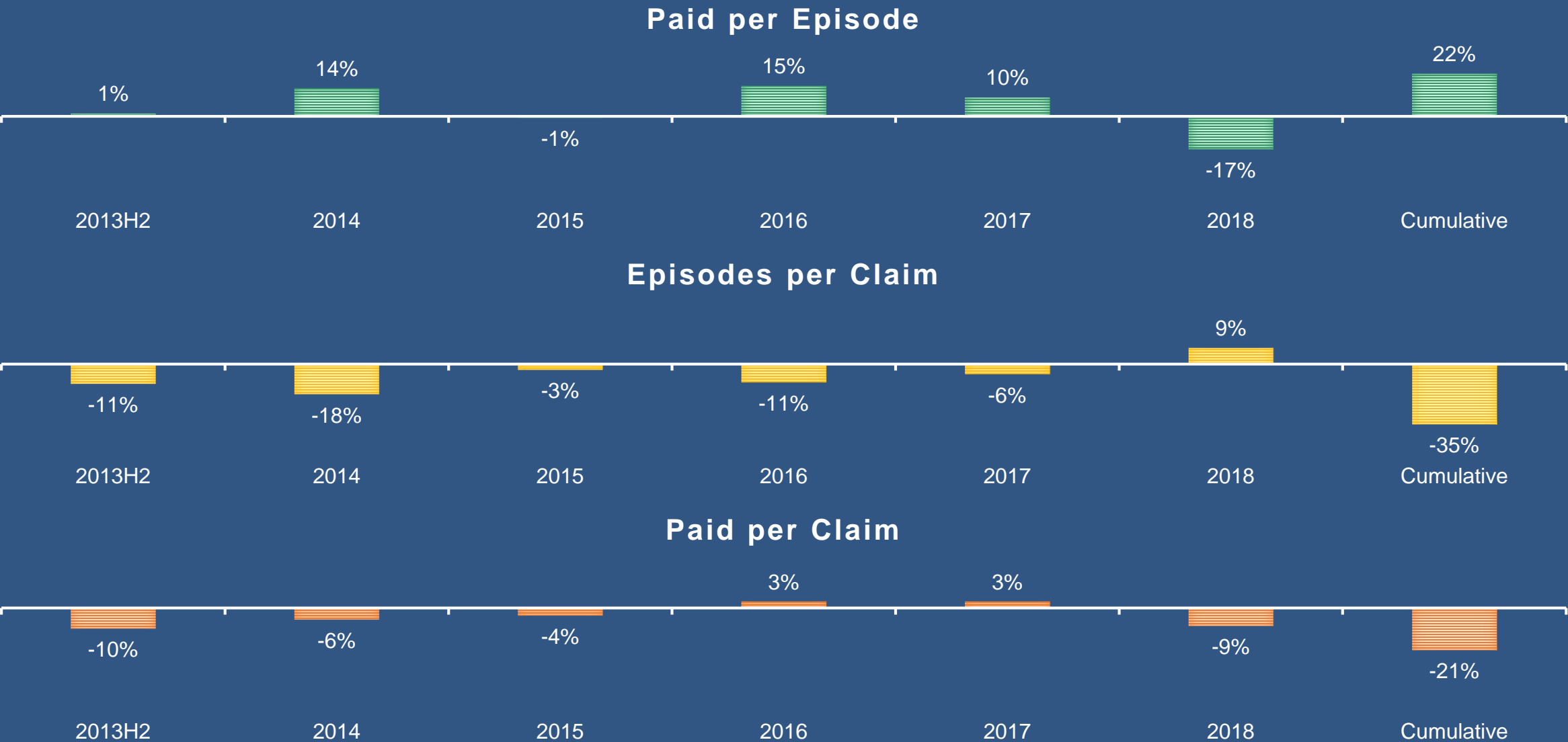
# % Change in *Inpatient* Cost per Claim (transaction-based)

As of April 7, 2019



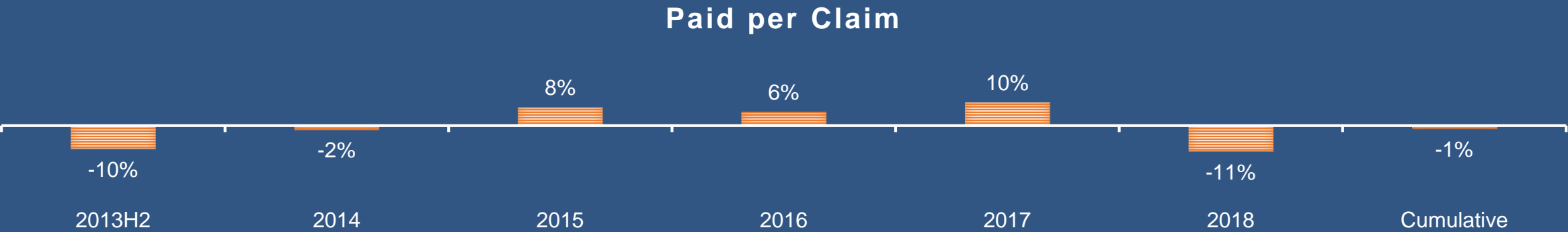
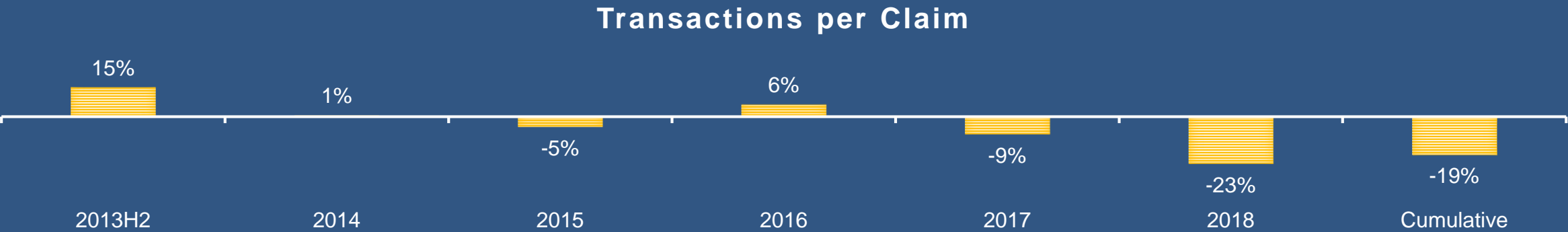
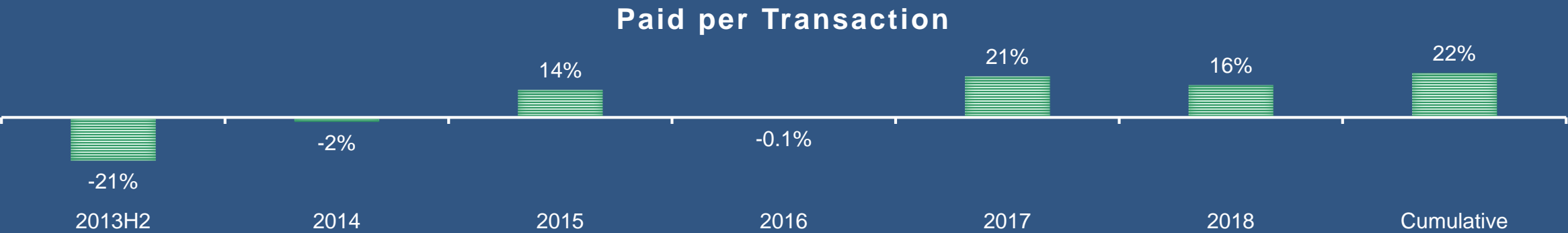
# % Change in *Inpatient* Cost per Claim (episode-based)

As of April 7, 2019



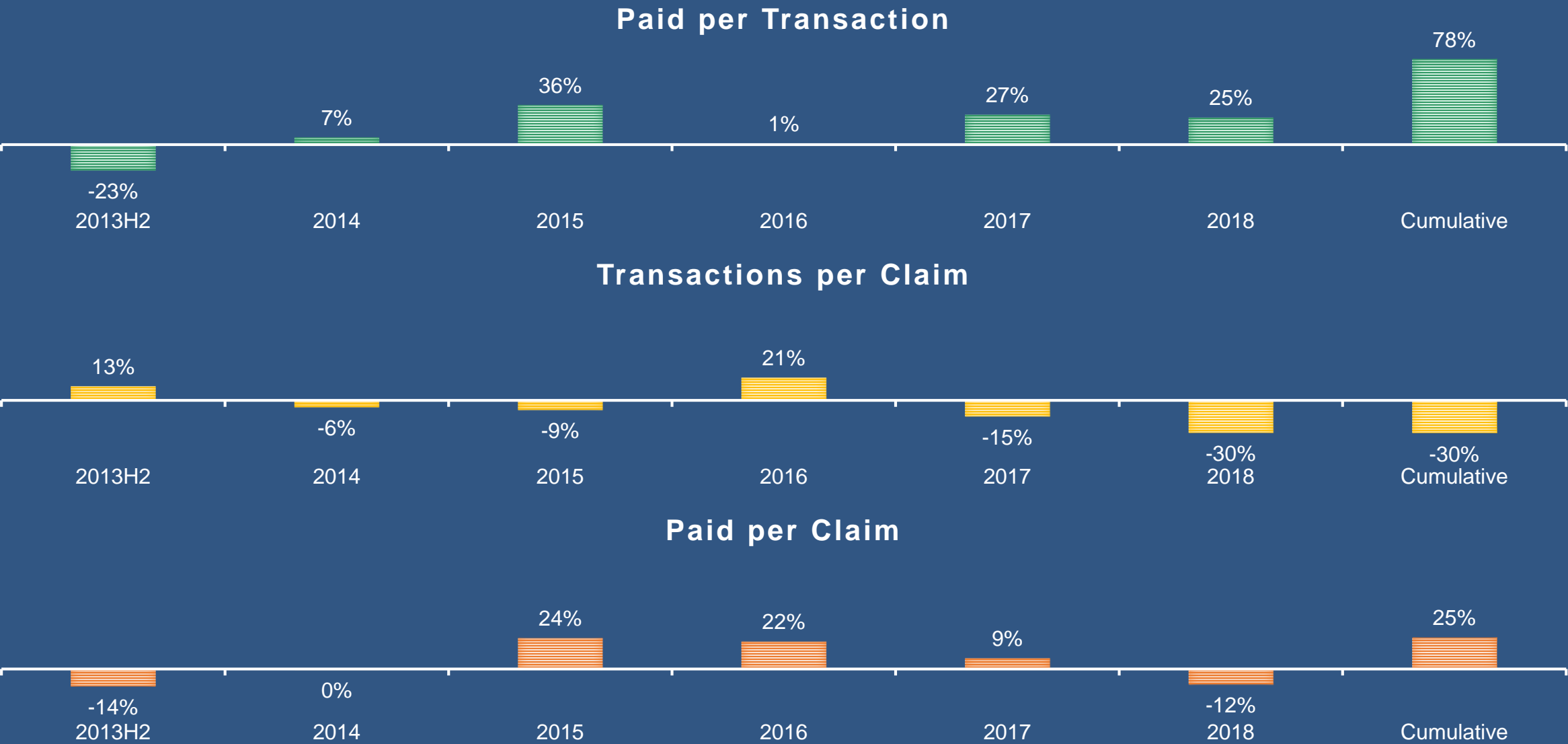
# % Change in *Outpatient* Cost per Claim

As of April 7, 2019



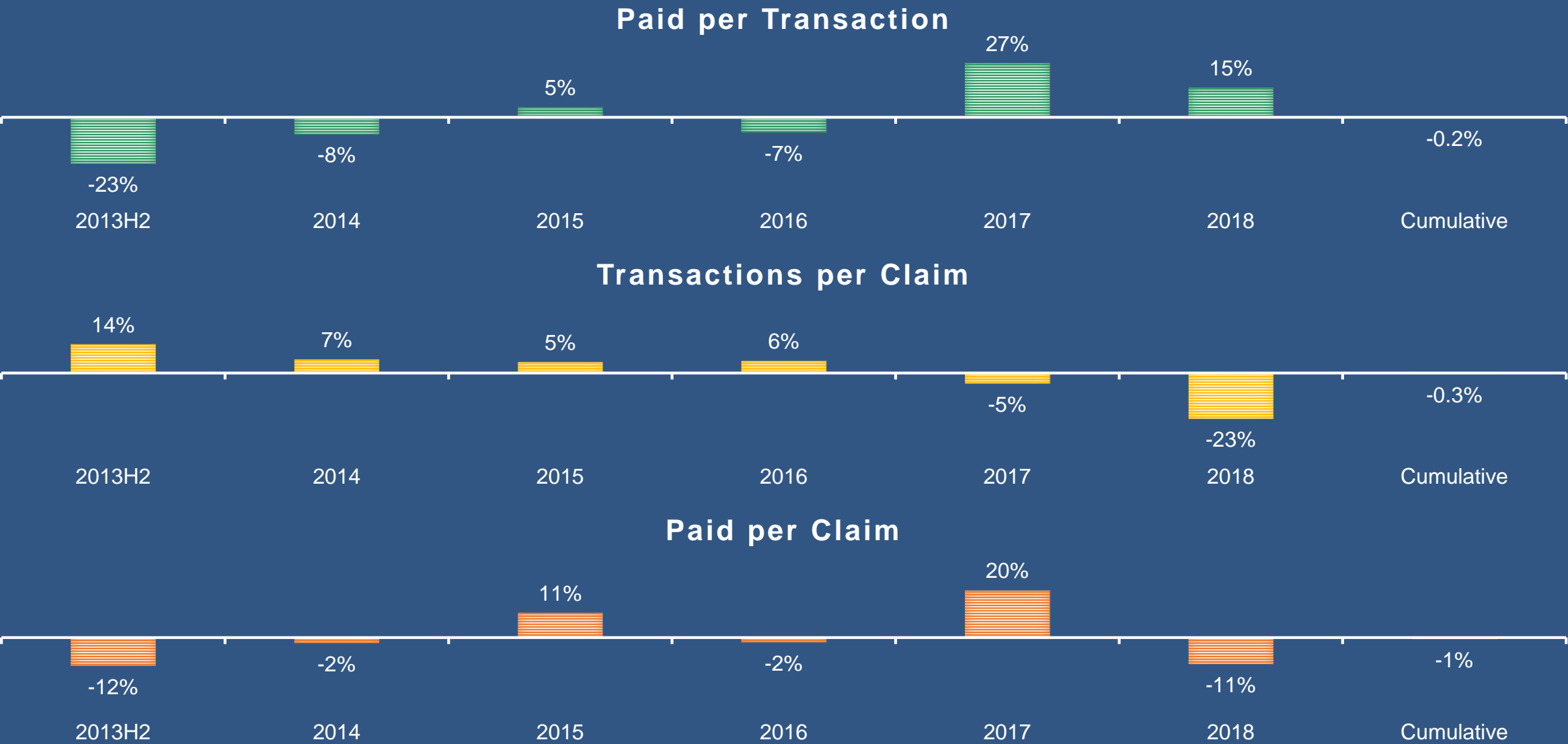
# % Change in Ambulatory Surgical Center (ASC) Cost per Claim

As of April 7, 2019



# % Change in *Hospital Outpatient Department* Cost per Claim

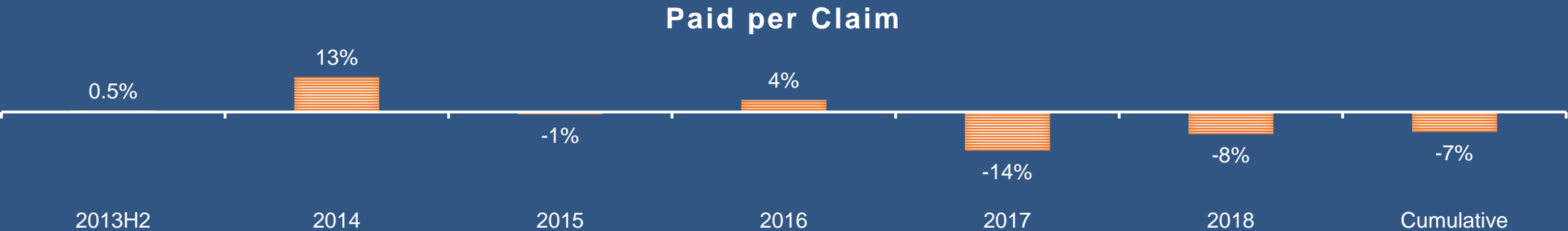
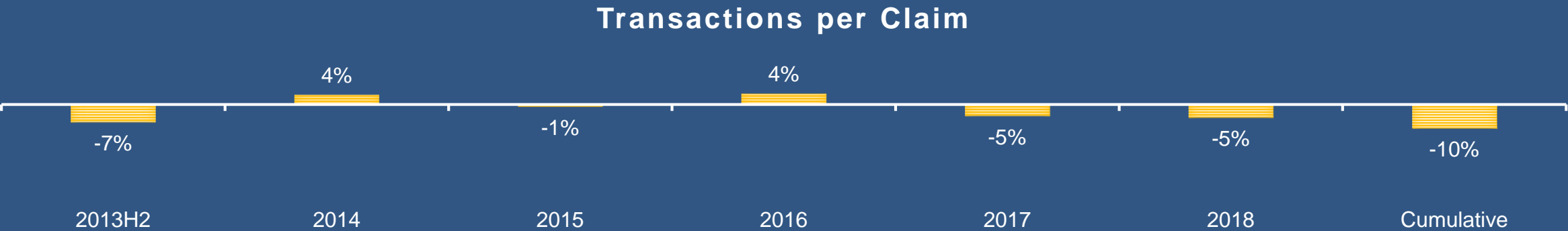
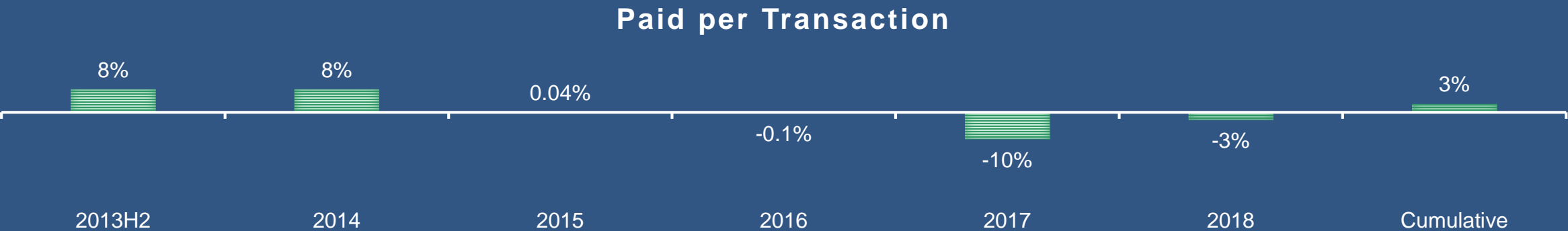
As of April 7, 2019





# % Change in *Medical Legal* Cost per Claim

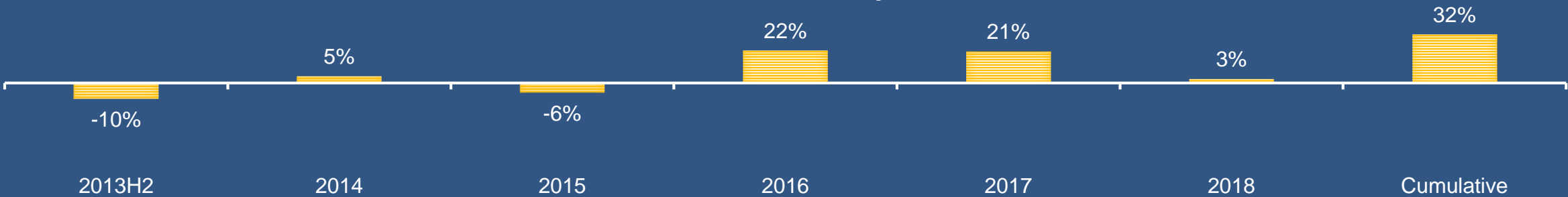
As of April 7, 2019



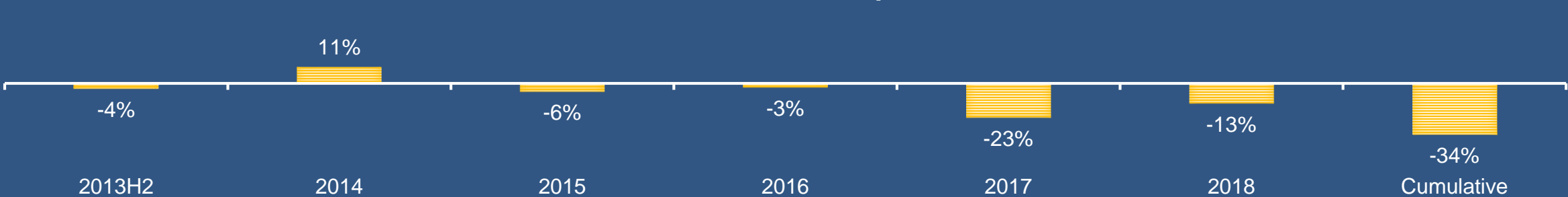
# % Change in *ML102* and *ML104* Transactions per Claim

As of April 7, 2019

ML102 Transactions per Claim

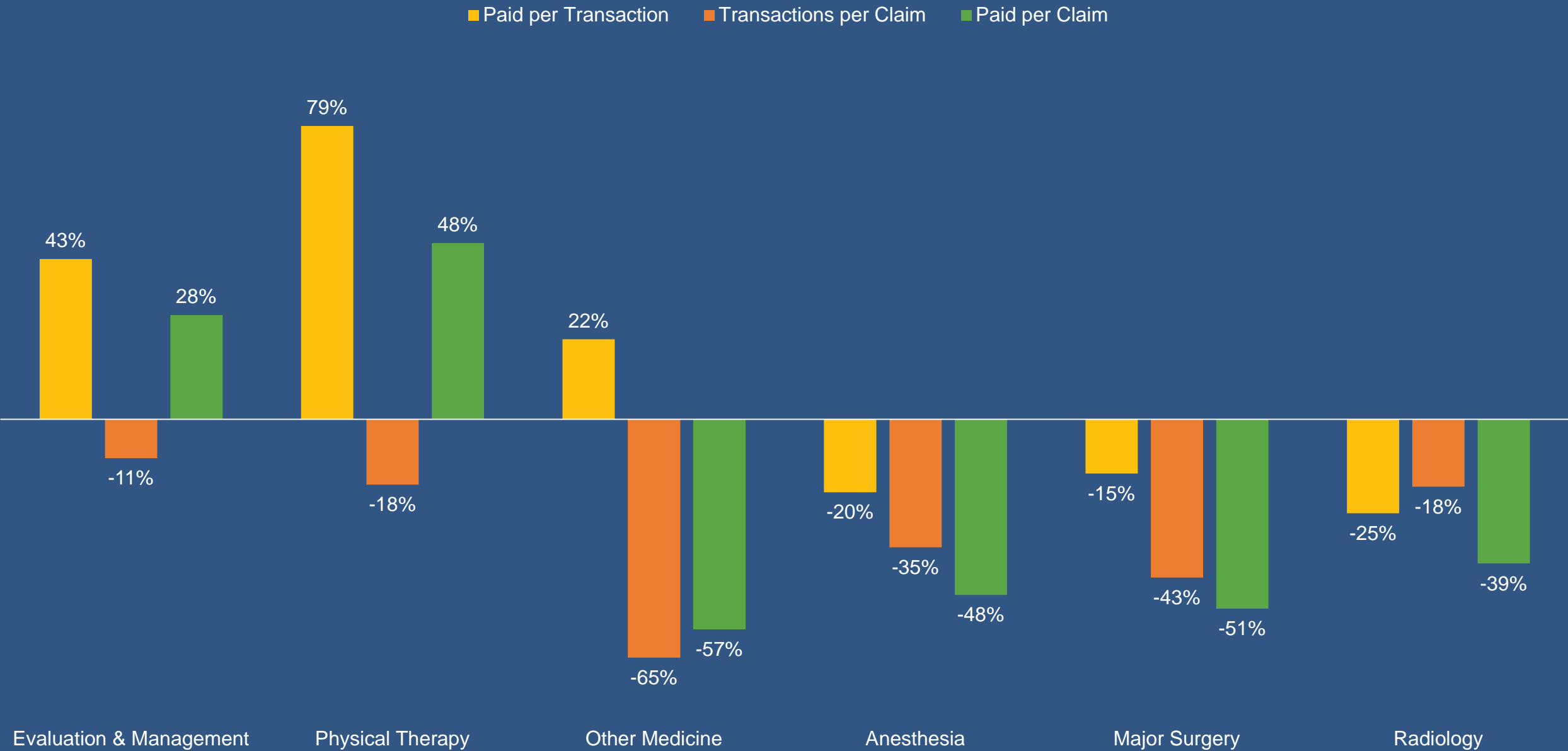


ML104 Transactions per Claim



# Cumulative % Change in Selected Components of Physician Services 2012H2 through 2018H2

As of April 7, 2019



## Item AC17-12-04 Earthquake Study

At the December 6, 2017 meeting, the Committee reviewed a study of earthquake exposure in California completed by Risk Management Solutions (RMS) on behalf of the WCIRB. In the study, RMS projected that the long-term average earthquake loss per year was \$29 million, with an average loss rate per \$100 of payroll of \$0.005. The RMS earthquake study can be accessed on [wcirb.com](http://wcirb.com).

At the August 1, 2018 meeting, the Committee discussed the appropriateness of including a provision for the long-term average earthquake losses in advisory pure premium rates. At the meeting, the Committee was advised that the WCIRB had included a provision for earthquake exposure in proposed January 1, 2004 pure premium rates and that the California Department of Insurance (CDI) had rejected that provision due to concerns over (a) the magnitude of the model estimates due to the limited volume of historical workers' compensation losses in California and (b) the lack of a long-term funding mechanism for earthquake losses. However, the Committee noted that since 2004 refinements to the earthquake models have significantly moderated the loss estimates, the WCIRB has developed a refined model of statewide insured exposures by location and that most jurisdictions include some catastrophe load in loss costs. Several Committee members expressed concern with including a uniform provision in advisory pure premium rates inasmuch as the earthquake exposure varies by region and industry and likely does not significantly vary with wage levels and different treatments of catastrophe loadings in other jurisdictions could create administrative issues by including a catastrophe provision in advisory pure premium rates in California. As a result, the Committee generally agreed that it was premature to propose the inclusion of an earthquake provision in advisory pure premium rates at this time and advised the WCIRB to revisit the issue once the RMS terrorism study was completed.

At the December 5, 2018 meeting, the Committee reviewed an analysis of potential California workers' compensation terrorism losses that would be subject to the United States Terrorism Risk Insurance Program Reauthorization Act (TRIPRA) of 2015. In the study, RMS projected that the long-term average net-insured retained terrorism loss per year was \$21 million, with an average loss rate per \$100 of payroll of \$0.0039. The RMS terrorism study can be accessed on [wcirb.com](http://wcirb.com).

The appropriateness of including a provision for these risks in advisory pure premium rates will be discussed at the meeting.

## Item AC18-06-03 Classification Payroll Limitations

In the Decision on the January 1, 2019 Regulatory Filing, the Insurance Commissioner approved annual payroll limitations to be applied to employees in five additional classifications, effective January 1, 2020. These classifications include 7607, *Video Post-Production/Audio Post-Production*, 8743, *Mortgage Brokers*, 8803, *Auditing, Accounting or Management Consulting Services*, 8820, *Law Firms*, and 8859, *Computer Programming or Software Development/Internet or Web-Based Application Development or Operation*. At the June 15, 2018 meeting, the Committee reviewed staff's proposed methodology to develop appropriate advisory pure premium rate adjustments for January 1, 2020 advisory pure premium rates for these classifications to reflect the new payroll limitation in the data used for classification ratemaking. The methodology was based on a review of American Community Survey (ACS) data which includes information on annual wages by industry and occupation. Staff has updated the approach to include the latest available ACS data. The approach and proposed adjustments for the five classifications are summarized below.

The ACS data includes information on annual wages by industry and occupation. When mappings between WCIRB classifications and occupations or industries are good, the ACS provides sufficiently refined data to estimate the shares of wages and salaries expected to be above given annual salary thresholds for select occupations and industries. The data is available at both occupation and industry levels, and either can be used independently or in combination to determine the appropriate adjustment at a classification level.

Staff has compiled the ACS data for calendar years 2008 to 2017.<sup>1</sup> Exhibit 1 provides an excerpt of the available data for the legal services industry for calendar years 2010 through 2017. This industry approximates Classification 8820, *Law Firms*. Exhibit 1 shows the aggregate payrolls for the legal services industry (NAICS 5411) with each worker's payroll limited to the indicated payroll limit. Exhibit 1 shows the shares of payrolls under select limits for each year. These shares are subject to the maximum salary cap in the ACS data, which is shown by year in Exhibit 1. The presence of this maximum mitigates the impact of very large salaries distorting the resulting adjustments for the five classifications. The selected limit for each year is based on the historical executive officers' maximum in effect for that year. These limits are used given that the annual payroll limitation for the five classifications will be set equal to the executive officers' maximum for consistency and simplicity in application. The historical limits are used to account for the historical variation in shares of wages excess a threshold. The impact of wage inflation is already incorporated in these historical limits since the executive officers' maximum is adjusted for inflation each year. For a given payroll limit, the share of payroll excess the limit is determined. Calendar year excess payroll shares are weighted together to determine policy year adjustment factors. These policy year factors form the basis to adjust historical payrolls to a limited basis.

The appropriateness of developing adjustment factors from the ACS relies on an adequate mapping between WCIRB classifications and ACS industries or occupations. WCIRB classification staff have reviewed these mappings for reasonableness to determine the appropriate industries and occupations and weights for each classification. For Classification 8820, a single industry (NAICS 5411 – Legal services) is mapped to the classification. For the other four classifications, a combination of industries and/or occupations are mapped to the classification. The mappings and weights used for each classification are shown in Exhibit 2.

Exhibits 3 through 7 show the computation of the policy year adjustment factors for the five classifications based on the methodology described above and the industry and occupation weights shown in Exhibit 2. Varying the selected factor by year may be appropriate if the impact of wage inflation on the adjustment is

---

<sup>1</sup> The ACS data is typically released in December based on the prior calendar year.

significant or if the estimated factors show a consistent trend. However, (a) the executive officer maximum (to which the payroll cap for the newly limited classifications will be tied) is already adjusted each year for wage inflation, (b) payrolls used in classification ratemaking are also adjusted for wage inflation in the analysis, and (c) as shown in Exhibits 3 through 7, the factors show some year-to-year volatility but do not deviate significantly from the mean for the classification. As a result, staff recommends selecting a single factor for each classification to apply to all years in the classification ratemaking analysis. The selected factors, which are shown in Exhibits 3 through 7 and Table 1, are based on a review of all-year, five-year, and two-year averages of the policy year factors.

Staff proposes reflecting the selected adjustment factors shown in Exhibits 3 through 7 in the payroll amounts and expected loss to payroll ratios used in the classification relativities analysis for these five classifications to be submitted with the January 1, 2020 Regulatory Filing.<sup>2</sup> This is intended to be a one-time change to the classification relativities for these five classifications to adjust the advisory pure premium rates to the payroll level that will be used in 2020 and later. As a result, staff is recommending to not restrict the relativity change for these classifications to the usual 25% swing limitation. The change is intended to have no impact on collected pure premiums as the pure premiums developed by applying higher rates to limited payrolls is intended to equal the pure premium previously developed by applying lower rates to unlimited payrolls.

---

<sup>2</sup> Expected loss rates for these classifications for policy year 2020 experience modifications would continue to be on an unlimited basis inasmuch as the experience period would be generally based on policy years 2016 through 2018, which still have payrolls reported on an unlimited basis.

**Share of ACS Payroll Excess Threshold for NAICS 5411 - Legal Services**

|                                  | Calendar Year   |            |            |            |            |            |            |            |
|----------------------------------|---|------------|------------|------------|------------|------------|------------|------------|
|                                  | 2010  | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       |
| <b>Total Person Weight (TPW)</b> | 159,511   | 158,873    | 166,849    | 170,559    | 162,664    | 161,612    | 170,458    | 163,363    |
| <b>Total Payroll (000s)</b>      | 13,400,168  | 13,789,399 | 14,355,544 | 15,385,182 | 15,867,158 | 15,314,449 | 17,288,486 | 17,451,720 |
| <b>Average ACS Payroll</b>       | 84,008  | 86,795     | 86,039     | 90,204     | 97,546     | 94,761     | 101,424    | 106,828    |
| <b>Max Wage Earners' TPW</b>     | 9,667   | 11,161     | 9,003      | 10,616     | 10,449     | 7,876      | 10,111     | 11,787     |
| <b>Max Wage</b>                  | 382,000   | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    |
| <b>Exec Payroll Maximum</b>      | 97,500  | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    |
| <b>Excess Exec Payroll Max</b>   | 0.311   | 0.332      | 0.302      | 0.320      | 0.342      | 0.312      | 0.342      | 0.349      |
| Policy Year (55%/45% Weighting)  |   |            |            |            |            |            |            |            |
| <b>Excess Exec Payroll Max</b>   | 0.321   | 0.319      | 0.310      | 0.330      | 0.329      | 0.326      | 0.345      |            |
| <b>Adjustment Factors</b>        | 0.679   | 0.681      | 0.690      | 0.670      | 0.671      | 0.674      | 0.655      |            |
| <b>Payroll Threshold</b>         | Share of Payroll Excess Threshold (Subject to Max Wage Cap) |            |            |            |            |            |            |            |
| <b>95,000</b>                    | 0.319   | 0.351      | 0.328      | 0.351      | 0.385      | 0.360      | 0.401      | 0.422      |
| <b>96,000</b>                    | 0.316   | 0.348      | 0.325      | 0.348      | 0.382      | 0.356      | 0.398      | 0.419      |
| <b>97,000</b>                    | 0.313   | 0.345      | 0.322      | 0.345      | 0.379      | 0.353      | 0.395      | 0.416      |
| <b>98,000</b>                    | 0.310   | 0.342      | 0.319      | 0.342      | 0.376      | 0.350      | 0.392      | 0.413      |
| <b>99,000</b>                    | 0.307   | 0.339      | 0.316      | 0.339      | 0.373      | 0.347      | 0.389      | 0.410      |
| <b>100,000</b>                   | 0.304   | 0.336      | 0.313      | 0.336      | 0.370      | 0.343      | 0.386      | 0.407      |
| <b>101,000</b>                   | 0.301   | 0.334      | 0.310      | 0.334      | 0.367      | 0.341      | 0.383      | 0.404      |
| <b>102,000</b>                   | 0.298   | 0.331      | 0.308      | 0.331      | 0.364      | 0.338      | 0.381      | 0.401      |
| <b>103,000</b>                   | 0.296   | 0.329      | 0.305      | 0.329      | 0.361      | 0.335      | 0.378      | 0.399      |
| <b>104,000</b>                   | 0.293   | 0.326      | 0.302      | 0.326      | 0.358      | 0.332      | 0.375      | 0.396      |
| <b>105,000</b>                   | 0.291   | 0.323      | 0.300      | 0.323      | 0.355      | 0.329      | 0.373      | 0.393      |
| <b>106,000</b>                   | 0.288   | 0.321      | 0.297      | 0.321      | 0.352      | 0.327      | 0.370      | 0.390      |
| <b>107,000</b>                   | 0.285   | 0.318      | 0.294      | 0.318      | 0.349      | 0.324      | 0.367      | 0.388      |
| <b>108,000</b>                   | 0.283   | 0.316      | 0.292      | 0.316      | 0.346      | 0.321      | 0.365      | 0.385      |
| <b>109,000</b>                   | 0.280   | 0.313      | 0.289      | 0.313      | 0.344      | 0.319      | 0.362      | 0.383      |
| <b>110,000</b>                   | 0.278   | 0.311      | 0.287      | 0.311      | 0.341      | 0.316      | 0.360      | 0.380      |
| <b>111,000</b>                   | 0.275   | 0.308      | 0.284      | 0.308      | 0.338      | 0.314      | 0.357      | 0.377      |
| <b>112,000</b>                   | 0.273   | 0.306      | 0.282      | 0.306      | 0.335      | 0.311      | 0.355      | 0.375      |
| <b>113,000</b>                   | 0.270   | 0.304      | 0.279      | 0.303      | 0.333      | 0.308      | 0.352      | 0.372      |
| <b>114,000</b>                   | 0.268   | 0.301      | 0.276      | 0.301      | 0.330      | 0.306      | 0.350      | 0.370      |
| <b>115,000</b>                   | 0.266   | 0.299      | 0.274      | 0.298      | 0.327      | 0.303      | 0.347      | 0.367      |
| <b>116,000</b>                   | 0.263   | 0.297      | 0.271      | 0.296      | 0.325      | 0.301      | 0.345      | 0.365      |
| <b>117,000</b>                   | 0.261   | 0.294      | 0.269      | 0.294      | 0.322      | 0.298      | 0.342      | 0.362      |
| <b>118,000</b>                   | 0.259   | 0.292      | 0.267      | 0.291      | 0.319      | 0.296      | 0.340      | 0.360      |
| <b>119,000</b>                   | 0.256   | 0.290      | 0.264      | 0.289      | 0.317      | 0.293      | 0.338      | 0.357      |
| <b>120,000</b>                   | 0.254   | 0.287      | 0.262      | 0.287      | 0.314      | 0.291      | 0.335      | 0.355      |
| <b>121,000</b>                   | 0.252   | 0.285      | 0.259      | 0.284      | 0.312      | 0.289      | 0.333      | 0.353      |
| <b>122,000</b>                   | 0.250   | 0.283      | 0.257      | 0.282      | 0.309      | 0.286      | 0.331      | 0.350      |
| <b>123,000</b>                   | 0.247   | 0.281      | 0.255      | 0.280      | 0.307      | 0.284      | 0.328      | 0.348      |
| <b>124,000</b>                   | 0.245   | 0.279      | 0.252      | 0.278      | 0.305      | 0.282      | 0.326      | 0.346      |
| <b>125,000</b>                   | 0.243   | 0.277      | 0.250      | 0.275      | 0.302      | 0.280      | 0.324      | 0.343      |

Source: American Community Survey (ACS) data

Payroll calculated by multiplying perwt (person weight of ACS) sample times incwages (income earned through wages).

**NAICS or Occupation Weights Assigned to Each Classification**

|   |               |
|---|---------------|
| <b>Classification 7607*</b>   |               |
| <u>NAICS</u>  | <u>Weight</u> |
| 515 - Broadcasting, except Internet                                       | 73.0%         |
| 5418 - Advertising, public relations, and related services                | 15.5%         |
| 5414 - Specialized design services  | 11.5%         |
| <u>Occupation</u>   | <u>Weight</u> |
| 2700 - Actors, Producers, and Directors                                   | 44.4%         |
| 2630 - Designers  | 17.2%         |
| 2900 - Broadcast and Sound Engineering Technicians and Radio Operators    | 16.4%         |
| 2920 - Television, Video, and Motion Picture Camera Operators and Editors | 8.5%          |
| 4800 - Advertising Sales Agents   | 4.6%          |
| 2600 - Artists and Related Workers  | 4.6%          |
| 2810 - Editors, News Analysts, Reporters, and Correspondents              | 4.4%          |

|  |               |
|--|---------------|
| <b>Classification 8743</b>   |               |
| <u>NAICS</u>   | <u>Weight</u> |
| 522M - Non-depository credit and related activities                            | 49.8%         |
| 52M2 - Securities, commodities, funds, trusts, and other financial instruments | 21.8%         |
| 55 - Management of companies and enterprises                                   | 20.7%         |
| 531 - Real estate  | 7.8%          |

|  |               |
|--|---------------|
| <b>Classification 8803</b>   |               |
| <u>NAICS</u>   | <u>Weight</u> |
| 5412 - Accounting, tax preparation, bookkeeping and payroll services | 70.8%         |
| 5416 - Management, scientific and technical consulting services      | 29.2%         |

|                            |               |
|----------------------------|---------------|
| <b>Classification 8820</b> |               |
| <u>NAICS</u>               | <u>Weight</u> |
| 5411 - Legal services      | 100.0%        |

|   |               |
|---|---------------|
| <b>Classification 8859</b>  |               |
| <u>NAICS</u>  | <u>Weight</u> |
| 5415 - Computer systems design and related services   | 65.0%         |
| 5112 - Software publishing  | 16.4%         |
| 5191ZM - Other information services, except libraries and archives, and internet publishing and broadcasting web search portals | 9.7%          |
| 5182 - Data processing, hosting, and related services   | 8.9%          |

Assigned industries or occupations based on a review by WCIRB classification analysts.

\*Final weighting for Classification 7607 based on a review of both the NAICS and Occupation weighted factors.



## Calendar Year

Selected<sup>1</sup>  
N/A

<sup>1</sup> See Exhibit 3.2.

Share of Payroll Excess Threshold for Classification 7607, Video Post-Production/Audio Post-Production (Occupation Weighted)

|                           | Calendar Year                   |            |            |            |            |            |            |            | Averages |       |       | Selected <sup>1</sup> |
|---------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|----------|-------|-------|-----------------------|
|                           | 2010                            | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | All Yr   | 5-Yr  | 2-Yr  |                       |
| Total Person Weight (TPW) | 203,934                         | 207,495    | 211,098    | 235,303    | 232,297    | 237,168    | 253,695    | 257,343    |          |       |       |                       |
| Total Payroll (000s)      | 12,707,470                      | 13,201,967 | 13,754,342 | 16,182,125 | 15,629,919 | 17,238,912 | 18,495,783 | 19,371,332 |          |       |       |                       |
| Average ACS Payroll       | 62,312                          | 63,625     | 65,156     | 68,771     | 67,284     | 72,687     | 72,906     | 75,274     |          |       |       |                       |
| Max Wage Earners' TPW     | 3,711                           | 3,487      | 3,707      | 4,336      | 3,951      | 4,261      | 3,360      | 5,011      |          |       |       |                       |
| Max Wage                  | 382,000                         | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    |          |       |       |                       |
| Exec Payroll Maximum      | 97,500                          | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    |          |       |       |                       |
| Excess Exec Payroll Max   | 0.189                           | 0.179      | 0.188      | 0.183      | 0.212      | 0.213      | 0.177      | 0.218      |          |       |       |                       |
|                           | Policy Year (55%/45% Weighting) |            |            |            |            |            |            |            |          |       |       |                       |
| Excess Exec Payroll Max   | 0.185                           | 0.183      | 0.185      | 0.196      | 0.212      | 0.197      | 0.195      |            |          |       |       |                       |
| Adjustment Factors        | 0.815                           | 0.817      | 0.815      | 0.804      | 0.788      | 0.803      | 0.805      |            | 0.807    | 0.803 | 0.804 | 0.80                  |

Excess Exec Payroll Max factors are based on a weighted average of the factors by industry and/or occupation.  
See Exhibit 1 for an industry sample and Exhibit 2 for the weights for each classification.

<sup>1</sup> Based on Exhibits 3.1 and 3.2.

Share of Payroll Excess Threshold for Classification 8743, Mortgage Brokers

|                           | Calendar Year                   |            |            |            |            |            |            |            | Averages |       |       |
|---------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|----------|-------|-------|
|                           | 2010                            | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | All Yr   | 5-Yr  | 2-Yr  |
|                           | Policy Year (55%/45% Weighting) |            |            |            |            |            |            |            | 0.717    | 0.710 | 0.698 |
| Total Person Weight (TPW) | 401,967                         | 409,992    | 426,214    | 437,445    | 440,957    | 469,406    | 500,509    | 492,036    |          |       |       |
| Total Payroll (000s)      | 26,416,636                      | 28,232,994 | 30,105,621 | 33,575,476 | 32,553,174 | 39,007,886 | 43,337,761 | 43,256,438 |          |       |       |
| Average ACS Payroll       | 65,718                          | 68,862     | 70,635     | 76,754     | 73,824     | 83,101     | 86,587     | 87,913     |          |       |       |
| Max Wage Earners' TPW     | 15,364                          | 17,081     | 18,286     | 23,873     | 15,909     | 21,861     | 24,898     | 21,266     |          |       |       |
| Max Wage                  | 382,000                         | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    |          |       |       |
| Exec Payroll Maximum      | 97,500                          | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    |          |       |       |
| Excess Exec Payroll Max   | 0.236                           | 0.287      | 0.252      | 0.314      | 0.247      | 0.323      | 0.302      | 0.274      |          |       |       |
| Excess Exec Payroll Max   | 0.259                           | 0.271      | 0.280      | 0.283      | 0.281      | 0.314      | 0.290      |            |          |       |       |
| Adjustment Factors        | 0.741                           | 0.729      | 0.720      | 0.717      | 0.719      | 0.686      | 0.710      |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            |          |       |       |

Excess Exec Payroll Max factors are based on a weighted average of the factors by industry and/or occupation.  
See Exhibit 1 for an industry sample and Exhibit 2 for the weights for each classification.

Share of Payroll Excess Threshold for Classification 8803, Auditing, Accounting or Management Consulting Services

|                    | Calendar Year                   |            |            |            |            |            |            |            |        | Averages |      |       | Selected |       |
|--------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|--------|----------|------|-------|----------|-------|
|                    | 2010                            | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | All Yr | 5-Yr     | 2-Yr | 0.814 | 0.806    | 0.816 |
|                    | 190,681                         | 199,242    | 209,886    | 213,621    | 225,004    | 240,347    | 249,754    | 248,590    |        |          |      |       |          |       |
|                    | 13,059,769                      | 12,966,266 | 14,973,873 | 15,982,114 | 16,757,679 | 18,574,634 | 19,578,052 | 19,888,230 |        |          |      |       |          |       |
|                    | 68,490                          | 65,078     | 71,343     | 74,815     | 74,477     | 77,283     | 78,389     | 80,004     |        |          |      |       |          |       |
|                    | 4,552                           | 4,805      | 6,586      | 6,410      | 6,465      | 6,762      | 6,096      | 4,953      |        |          |      |       |          |       |
|                    | 382,000                         | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    |        |          |      |       |          |       |
|                    | 97,500                          | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    |        |          |      |       |          |       |
|                    | 0.174                           | 0.143      | 0.207      | 0.184      | 0.206      | 0.216      | 0.182      | 0.149      |        |          |      |       |          |       |
|                    | Policy Year (55%/45% Weighting) |            |            |            |            |            |            |            |        |          |      |       |          |       |
| 0.160              | 0.172                           | 0.197      | 0.194      | 0.211      | 0.201      | 0.167      |            |            |        |          |      |       |          |       |
| 0.840              | 0.828                           | 0.803      | 0.806      | 0.789      | 0.799      | 0.833      |            |            |        |          |      |       |          |       |
| Adjustment Factors |                                 |            |            |            |            |            |            |            |        |          |      |       |          |       |
|                    |                                 |            |            |            |            |            |            |            |        |          |      |       |          |       |
|                    |                                 |            |            |            |            |            |            |            |        |          |      |       |          |       |

Excess Exec Payroll Max factors are based on a weighted average of the factors by industry and/or occupation.  
See Exhibit 1 for an industry sample and Exhibit 2 for the weights for each classification.

Share of Payroll Excess Threshold for Classification 8820, Law Firms

|                           | Calendar Year                   |            |            |            |            |            |            |            | Averages |       |       |
|---------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|----------|-------|-------|
|                           | 2010                            | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | AllYr    | 5-Yr  | 2-Yr  |
|                           | Policy Year (55%/45% Weighting) |            |            |            |            |            |            |            | 0.674    | 0.672 | 0.664 |
| Total Person Weight (TPW) | 159,511                         | 158,873    | 166,849    | 170,559    | 162,664    | 161,612    | 170,458    | 163,363    |          |       |       |
| Total Payroll (000s)      | 13,400,168                      | 13,789,399 | 14,355,544 | 15,385,182 | 15,867,158 | 15,314,449 | 17,288,486 | 17,451,720 |          |       |       |
| Average ACS Payroll       | 84,008                          | 86,795     | 86,039     | 90,204     | 97,546     | 94,761     | 101,424    | 106,828    |          |       |       |
| Max Wage Earners' TPW     | 9,667                           | 11,161     | 9,003      | 10,616     | 10,449     | 7,876      | 10,111     | 11,787     |          |       |       |
| Max Wage                  | 382,000                         | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    |          |       |       |
| Exec Payroll Maximum      | 97,500                          | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    |          |       |       |
| Excess Exec Payroll Max   | 0.311                           | 0.332      | 0.302      | 0.320      | 0.342      | 0.312      | 0.342      | 0.349      |          |       |       |
| Excess Exec Payroll Max   | 0.321                           | 0.319      | 0.310      | 0.330      | 0.329      | 0.326      | 0.345      |            |          |       |       |
| Adjustment Factors        | 0.679                           | 0.681      | 0.690      | 0.670      | 0.671      | 0.674      | 0.655      |            |          |       |       |
|                           |                                 |            |            |            |            |            |            |            | 0.674    | 0.672 | 0.664 |
|                           |                                 |            |            |            |            |            |            |            |          |       | 0.67  |

Excess Exec Payroll Max factors are based on a weighted average of the factors by industry and/or occupation.  
See Exhibit 1 for an industry sample and Exhibit 2 for the weights for each classification.

Share of Payroll Excess Threshold for Classification 8859, Computer Programming or Software Development/Internet or Web-Based Application Development or Operation

|                         | Calendar Year                   |            |            |            |            |            |            |            | Averages |       |       |
|-------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|----------|-------|-------|
|                         | 2010                            | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | All Yr   | 5-Yr  | 2-Yr  |
|                         | 246,800                         | 259,500    | 293,086    | 316,085    | 369,169    | 413,832    | 469,842    | 513,047    | 0.737    | 0.730 | 0.730 |
|                         | 23,581,099                      | 25,690,557 | 29,574,748 | 34,578,512 | 40,440,770 | 46,363,769 | 56,145,302 | 63,993,365 | 0.730    | 0.730 | 0.730 |
|                         | 95,547                          | 99,000     | 100,908    | 109,396    | 109,545    | 112,035    | 119,498    | 124,732    | 0.730    | 0.730 | 0.730 |
| Average ACS Payroll     | 8,015                           | 8,272      | 10,513     | 15,550     | 13,712     | 12,539     | 18,150     | 21,308     | 0.730    | 0.730 | 0.730 |
| Max Wage Earners' TPW   | 382,000                         | 398,000    | 403,000    | 421,000    | 455,000    | 483,000    | 504,000    | 493,000    | 0.730    | 0.730 | 0.730 |
| Max Wage                |                                 |            |            |            |            |            |            |            |          |       |       |
| Exec Payroll Maximum    | 97,500                          | 101,400    | 104,000    | 106,600    | 109,200    | 111,800    | 117,000    | 122,200    | 0.730    | 0.730 | 0.730 |
| Excess Exec Payroll Max | 0.243                           | 0.242      | 0.257      | 0.288      | 0.262      | 0.268      | 0.269      | 0.278      | 0.730    | 0.730 | 0.730 |
|                         | Policy Year (55%/45% Weighting) |            |            |            |            |            |            |            |          |       |       |
| Excess Exec Payroll Max | 0.243                           | 0.249      | 0.271      | 0.276      | 0.264      | 0.268      | 0.273      |            | 0.730    | 0.730 | 0.730 |
| Adjustment Factors      | 0.757                           | 0.751      | 0.729      | 0.724      | 0.736      | 0.732      | 0.727      |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            |            |            |            |            |            | 0.730    | 0.730 | 0.730 |
|                         |                                 |            |            | </         |            |            |            |            |          |       |       |

Excess Exec Payroll Max factors are based on a weighted average of the factors by industry and/or occupation.  
See Exhibit 1 for an industry sample and Exhibit 2 for the weights for each classification.

## Item AC19-06-01

### 3/31/2019 Experience – Review of Methodologies

Staff has prepared a preliminary analysis of statewide experience through March 31, 2019, which is included in Exhibits 1 through 8. This information reflects insurers writing approximately 100% of the market based on 2018 premium levels. The methodologies used are generally consistent with those reflected in the January 1, 2019 Pure Premium Rate Filing and reviewed at the April 2, 2019 meeting. Wage and loss levels were projected to January 1, 2021—the approximate midpoint of experience on policies incepting in 2020, and premiums were adjusted to the industry average filed pure premium rate level as of January 1, 2019.

As shown on Exhibit 8, the projected policy year 2020 loss to the industry average filed pure premium ratio based on March 31, 2019 experience is 0.550. (The projected loss to pure premium ratio for policies incepting between July 1, 2019 and December 31, 2019 reviewed at the April 2, 2019 meeting based on December 31, 2018 experience and benchmarked to the industry average filed pure premium rate level as of January 1, 2019 is 0.565.)

Additional supplemental information is included in Exhibits 9 through 12.

**California Workers' Compensation  
Accident Year Experience as of March 31, 2019**

| Year | Earned<br>Premium | Paid<br>Indemnity | Indemnity<br>Reserves | Paid<br>Medical** | Medical<br>Reserves | IBNR*         | Total<br>Incurred** | Loss<br>Ratio* |
|------|-------------------|-------------------|-----------------------|-------------------|---------------------|---------------|---------------------|----------------|
| 1986 | 3,506,609,097     | 1,383,117,785     | 4,696,354             | 1,141,111,979     | 32,902,227          | 18,852,369    | 2,580,680,714       | 0.736          |
| 1987 | 4,374,085,383     | 1,505,867,310     | 6,185,596             | 1,332,314,887     | 39,173,789          | 57,912,715    | 2,941,454,297       | 0.672          |
| 1988 | 5,173,049,472     | 1,702,887,219     | 6,411,903             | 1,539,561,728     | 35,082,864          | 38,394,980    | 3,322,338,694       | 0.642          |
| 1989 | 5,674,529,942     | 1,939,421,757     | 8,364,069             | 1,794,485,421     | 50,360,007          | 39,588,930    | 3,832,220,184       | 0.675          |
| 1990 | 5,698,665,461     | 2,257,116,263     | 8,187,178             | 2,039,221,270     | 48,404,287          | 60,232,828    | 4,413,161,826       | 0.774          |
| 1991 | 5,863,319,243     | 2,473,423,122     | 14,313,664            | 2,192,972,914     | 54,313,248          | 61,877,666    | 4,796,900,614       | 0.818          |
| 1992 | 5,681,466,382     | 1,973,788,980     | 12,429,314            | 1,758,814,049     | 52,721,173          | 62,035,351    | 3,859,788,867       | 0.679          |
| 1993 | 5,928,480,359     | 1,690,884,092     | 13,707,161            | 1,509,597,254     | 71,795,669          | 41,193,634    | 3,327,177,810       | 0.561          |
| 1994 | 5,022,749,028     | 1,624,084,155     | 20,470,114            | 1,460,722,471     | 86,145,428          | 44,556,806    | 3,235,978,974       | 0.644          |
| 1995 | 3,778,975,599     | 1,759,309,493     | 26,907,658            | 1,610,757,867     | 100,551,537         | 54,045,943    | 3,551,572,498       | 0.940          |
| 1996 | 3,736,857,547     | 1,946,552,690     | 33,327,458            | 1,705,656,771     | 104,902,971         | 71,270,944    | 3,861,710,834       | 1.033          |
| 1997 | 3,916,944,392     | 2,305,959,228     | 42,246,558            | 1,998,896,856     | 137,481,819         | 100,489,189   | 4,585,073,650       | 1.171          |
| 1998 | 4,322,051,270     | 2,760,747,060     | 53,621,974            | 2,619,619,452     | 224,484,222         | 201,817,155   | 5,860,289,863       | 1.356          |
| 1999 | 4,537,629,086     | 3,038,551,123     | 55,005,115            | 3,009,072,001     | 195,343,958         | 247,230,156   | 6,545,202,353       | 1.442          |
| 2000 | 5,905,419,052     | 3,408,497,177     | 71,904,302            | 3,532,483,141     | 227,335,976         | 413,158,071   | 7,653,378,667       | 1.296          |
| 2001 | 10,094,684,192    | 4,814,130,926     | 108,443,908           | 5,313,356,167     | 392,197,923         | 620,330,280   | 11,248,459,204      | 1.114          |
| 2002 | 13,405,893,679    | 4,744,478,318     | 100,073,390           | 5,429,787,335     | 348,075,870         | 891,521,458   | 11,513,936,371      | 0.859          |
| 2003 | 19,429,675,115    | 4,511,467,702     | 155,250,075           | 4,998,045,890     | 366,192,199         | 1,265,540,073 | 11,296,495,939      | 0.581          |
| 2004 | 23,043,963,090    | 3,180,258,066     | 130,885,799           | 4,000,396,857     | 314,046,496         | 1,383,749,869 | 9,009,337,087       | 0.391          |
| 2005 | 21,350,709,483    | 2,503,208,639     | 115,442,597           | 3,595,158,218     | 307,562,858         | 1,118,811,243 | 7,640,183,555       | 0.358          |
| 2006 | 17,205,061,787    | 2,586,897,759     | 124,835,254           | 3,699,532,210     | 335,281,747         | 779,724,521   | 7,526,271,491       | 0.437          |
| 2007 | 13,252,379,499    | 2,721,360,736     | 144,773,122           | 3,961,873,811     | 377,981,916         | 860,346,847   | 8,066,336,432       | 0.609          |
| 2008 | 10,744,360,124    | 2,764,003,172     | 162,069,481           | 3,951,597,327     | 384,186,879         | 533,801,561   | 7,795,658,420       | 0.726          |
| 2009 | 8,877,640,496     | 2,629,424,778     | 158,679,131           | 3,746,086,526     | 374,251,494         | 526,400,065   | 7,434,841,994       | 0.837          |
| 2010 | 9,398,228,398     | 2,638,896,065     | 167,628,893           | 3,831,023,884     | 372,090,950         | 606,343,669   | 7,615,983,461       | 0.810          |
| 2011 | 10,129,285,077    | 2,598,490,238     | 181,088,413           | 3,460,574,028     | 397,352,825         | 816,031,403   | 7,453,536,907       | 0.736          |
| 2012 | 11,692,134,220    | 2,607,060,304     | 226,624,384           | 3,319,753,740     | 437,395,736         | 1,009,801,100 | 7,600,635,264       | 0.650          |
| 2013 | 14,149,827,161    | 2,609,023,740     | 254,410,788           | 3,130,753,585     | 491,123,538         | 1,742,570,108 | 8,227,881,759       | 0.581          |
| 2014 | 15,997,914,039    | 2,654,684,051     | 359,773,250           | 2,961,386,458     | 570,848,001         | 2,842,633,281 | 9,389,325,041       | 0.587          |
| 2015 | 17,059,168,432    | 2,534,201,569     | 489,211,212           | 2,741,358,039     | 766,863,317         | 3,471,587,166 | 10,003,221,303      | 0.586          |
| 2016 | 17,952,877,787    | 2,149,397,588     | 649,240,851           | 2,353,023,555     | 976,318,486         | 3,881,776,066 | 10,009,756,546      | 0.558          |
| 2017 | 17,672,417,401    | 1,514,398,014     | 910,934,330           | 1,822,545,807     | 1,281,400,143       | 4,617,739,953 | 10,147,018,247      | 0.574          |
| 2018 | 17,420,199,712    | 683,354,244       | 961,605,325           | 1,046,190,125     | 1,568,577,049       | 5,814,092,079 | 10,073,818,822      | 0.578          |
| 2019 | 3,993,572,512     | 19,602,795        | 109,885,445           | 35,728,898        | 253,515,650         | 1,819,196,448 | 2,237,929,236       | 0.560          |

\* Shown for informational purposes only.

\*\* Paid medical for accident years 2011 and subsequent exclude the paid cost of medical cost containment programs (MCCP).  
Paid medical for accident years 2010 and prior include paid MCCP costs.

Source: WCIRB quarterly experience calls



**Incurred Indemnity Loss Development Factors**

| Accident Year | <u>27/15</u> | <u>39/27</u> | <u>51/39</u> | <u>63/51</u> | <u>75/63</u> | <u>87/75</u> | <u>99/87</u> | Age-to-Age (in months) |       |       |       |       | <u>123/111</u> | <u>135/123</u> | <u>147/135</u> | <u>159/147</u> | <u>171/159</u> | <u>183/171</u> | <u>195/183</u> | <u>207/195</u> |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|-------|-------|-------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1993          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                |                |                | 0.999          |
| 1994          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 0.999          | 1.001          |
| 1995          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.002          | 1.002          | 1.001          |
| 1996          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.002          | 1.002          | 1.001          |
| 1997          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.001          | 1.001          |
| 1998          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.000          | 1.003          | 1.001          |
| 1999          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.002          | 1.002          | 1.000          |
| 2000          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.000          |
| 2001          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.002          | 1.000          |
| 2002          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.002          | 1.002          |
| 2003          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2004          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.002          | 1.002          |
| 2005          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.004          | 1.002          | 1.002          |
| 2006          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.000          |
| 2007          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.000          |
| 2008          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.002          | 1.000          |
| 2009          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.001          | 1.002          | 1.002          |
| 2010          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2011          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2012          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2013          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2014          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2015          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2016          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| 2017          |              |              |              |              |              |              |              |                        |       |       |       |       |                |                |                |                |                | 1.003          | 1.002          | 1.002          |
| Selected (a)  | 1.588        | 1.187        | 1.085        | 1.049        | 1.030        | 1.022        | 1.016        | 1.011                  | 1.010 | 1.006 | 1.007 | 1.003 | 1.002          | 1.002          | 1.002          | 1.002          | 1.002          | 1.002          | 1.002          | 1.001          |
| Cumulative    | 2.424        | 1.526        | 1.286        | 1.185        | 1.130        | 1.097        | 1.073        | 1.056                  | 1.045 | 1.035 | 1.028 | 1.021 | 1.018          | 1.016          | 1.014          | 1.014          | 1.014          | 1.014          | 1.014          | 1.011          |

(a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and six-year average for the subsequent age-to-age factors.

**Incurred Indemnity Loss Development Factors (Continued)**

| Accident Year | 219/207 | 231/219 | 243/231 | 255/243 | 267/255 | 279/267 | 291/279 | 303/291 | 315/303 | 327/315 | 339/327 | 351/339 | 363/351 | 375/363 | 387/375 | 399/387 | 411/399 | ULT/411Inc.(b) |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|
| 1983          |         |         |         |         |         |         |         |         |         | 1.000   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.001   | 1.001   | ULT/411Inc.(b) |
| 1984          |         |         |         |         |         |         |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.001   | 1.001   |                |
| 1985          |         |         |         |         |         |         |         | 1.000   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 0.999   | 1.000   | 1.000   | 1.001   |                |
| 1986          |         |         |         |         |         |         | 1.001   | 1.000   | 1.002   | 1.002   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1987          |         |         |         |         |         | 1.000   | 1.000   | 1.002   | 1.001   | 1.000   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   |                |
| 1988          |         |         |         |         | 1.000   | 1.002   | 1.002   | 1.001   | 1.000   | 1.000   | 1.000   | 1.001   | 1.000   | 1.001   | 1.000   | 1.000   | 1.001   |                |
| 1989          |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   |                |
| 1990          |         |         | 1.000   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1991          |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.001   |                |
| 1992          | 1.000   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1993          | 1.000   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1994          | 1.001   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1995          | 1.002   | 0.999   | 0.999   | 1.001   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1996          | 1.002   | 1.001   | 1.000   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1997          | 1.000   | 1.000   | 1.000   | 0.999   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1998          | 1.002   | 1.002   | 1.001   | 1.000   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1999          | 1.000   | 1.000   | 1.002   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 2000          | 1.002   | 1.001   | 1.000   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                |
| 2001          | 1.001   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                |
| Selected (a)  | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.001   |                |
| Cumulative    | 1.011   | 1.009   | 1.009   | 1.008   | 1.008   | 1.007   | 1.007   | 1.007   | 1.007   | 1.007   | 1.006   | 1.006   | 1.005   | 1.005   | 1.005   | 1.005   | 1.004   | 1.004          |

(b) The ULT/411Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.

**Incurred Medical Loss Development Factors**

| Accident Year | Age-to-Age (in months) (b) |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |
|---------------|----------------------------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
|               | 27/15                      | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | 111/99 | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 |
| 1993          |                            |       |       |       |       |       |       |        |         |         |         |         |         |         |         | 1.008   |
| 1994          |                            |       |       |       |       |       |       |        |         |         |         |         |         |         | 1.021   | 1.011   |
| 1995          |                            |       |       |       |       |       |       |        |         |         |         |         |         | 1.016   | 1.005   | 1.010   |
| 1996          |                            |       |       |       |       |       |       |        |         |         |         |         | 1.015   | 1.013   | 1.012   | 1.008   |
| 1997          |                            |       |       |       |       |       |       |        |         |         |         | 1.018   | 1.009   | 1.010   | 1.005   | 1.004   |
| 1998          |                            |       |       |       |       |       |       |        |         |         | 1.020   | 1.010   | 1.010   | 1.013   | 1.007   | 1.012   |
| 1999          |                            |       |       |       |       |       |       |        |         | 1.018   | 1.017   | 1.014   | 1.009   | 1.012   | 1.003   | 1.000   |
| 2000          |                            |       |       |       |       |       |       |        | 1.019   | 1.022   | 1.016   | 1.017   | 1.012   | 1.005   | 0.998   | 0.995   |
| 2001          |                            |       |       |       |       |       |       | 1.035  | 1.030   | 1.020   | 1.018   | 1.018   | 1.006   | 0.998   | 0.999   | 0.999   |
| 2002          |                            |       |       |       |       |       | 1.034 | 1.028  | 1.027   | 1.020   | 1.013   | 1.007   | 0.998   | 0.999   | 1.001   |         |
| 2003          |                            |       |       |       |       | 1.043 | 1.040 | 1.036  | 1.025   | 1.019   | 1.009   | 1.001   | 0.999   | 0.999   |         |         |
| 2004          |                            |       |       |       | 1.056 | 1.062 | 1.038 | 1.032  | 1.026   | 1.008   | 1.004   | 0.999   | 0.998   | 0.998   |         |         |
| 2005          |                            |       |       | 1.080 | 1.074 | 1.057 | 1.040 | 1.027  | 1.018   | 1.005   | 1.003   | 1.003   | 0.998   |         |         |         |
| 2006          |                            |       | 1.095 | 1.076 | 1.061 | 1.049 | 1.037 | 1.018  | 1.007   | 1.003   | 1.001   | 1.003   |         |         |         |         |
| 2007          |                            | 1.171 | 1.114 | 1.078 | 1.069 | 1.041 | 1.028 | 1.015  | 1.005   | 1.004   | 1.003   |         |         |         |         |         |
| 2008          | 1.378                      | 1.189 | 1.116 | 1.087 | 1.058 | 1.035 | 1.020 | 1.009  | 1.004   | 1.002   |         |         |         |         |         |         |
| 2009          | 1.431                      | 1.182 | 1.133 | 1.080 | 1.049 | 1.025 | 1.014 | 1.006  | 1.004   |         |         |         |         |         |         |         |
| 2010          | 1.431                      | 1.212 | 1.117 | 1.068 | 1.036 | 1.023 | 1.011 | 1.011  |         |         |         |         |         |         |         |         |
| 2011          | 1.452                      | 1.185 | 1.103 | 1.059 | 1.025 | 1.016 | 1.011 |        |         |         |         |         |         |         |         |         |
| 2012          | 1.391                      | 1.153 | 1.078 | 1.051 | 1.025 | 1.014 |       |        |         |         |         |         |         |         |         |         |
| 2013          | 1.353                      | 1.119 | 1.077 | 1.031 | 1.023 |       |       |        |         |         |         |         |         |         |         |         |
| 2014          | 1.325                      | 1.135 | 1.064 | 1.033 |       |       |       |        |         |         |         |         |         |         |         |         |
| 2015          | 1.314                      | 1.118 | 1.050 |       |       |       |       |        |         |         |         |         |         |         |         |         |
| 2016          | 1.287                      | 1.093 |       |       |       |       |       |        |         |         |         |         |         |         |         |         |
| 2017          | 1.261                      |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |
| Selected (a)  | 1.261                      | 1.093 | 1.050 | 1.033 | 1.023 | 1.014 | 1.011 | 1.011  | 1.011   | 1.007   | 1.006   | 1.005   | 1.002   | 1.002   | 1.001   | 1.001   |
| Cumulative    | 1.693                      | 1.342 | 1.228 | 1.170 | 1.132 | 1.107 | 1.092 | 1.080  | 1.068   | 1.057   | 1.050   | 1.044   | 1.038   | 1.036   | 1.035   | 1.033   |

(a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and six-year average for the subsequent age-to-age factors.

(b) Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

**Incurred Medical Loss Development Factors (Continued)**

| Accident Year | 219/207 | 231/219 | 243/231 | 255/243 | 267/255 | 279/267 | 291/279 | 303/291 | Age-to-Age (in months) |       |       |       |       |       | 339/327 | 351/339 | 363/351 | 375/363 | 387/375 | 399/387 | 411/399 | ULT/411Inc (c) |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|---------|----------------|
| 1983          |         |         |         |         |         |         |         |         | 1.003                  | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003   | 1.005   | 1.003   | 1.003   | 1.002   | 0.997   | 0.999   |                |
| 1984          |         |         |         |         |         |         |         | 1.002   | 1.004                  | 1.003 | 1.004 | 1.004 | 1.004 | 1.004 | 1.003   | 1.000   | 1.004   | 0.999   | 0.999   | 1.001   | 1.000   |                |
| 1985          |         |         |         |         |         |         | 1.006   | 1.006   | 1.005                  | 1.003 | 1.005 | 1.005 | 1.004 | 1.003 | 1.003   | 1.004   | 1.000   | 0.999   | 0.999   | 1.000   | 1.001   |                |
| 1986          |         |         |         |         |         |         | 1.006   | 1.006   | 1.005                  | 1.003 | 1.005 | 1.005 | 1.004 | 1.003 | 1.003   | 1.004   | 1.001   | 0.998   | 1.004   | 1.000   | 1.001   |                |
| 1987          |         |         |         |         |         | 1.010   | 0.999   | 1.001   | 1.002                  | 1.003 | 1.005 | 1.005 | 1.003 | 1.003 | 1.003   | 1.001   | 0.999   | 1.001   | 0.999   | 1.000   | 0.999   |                |
| 1988          |         |         |         |         | 1.005   | 1.005   | 1.007   | 1.007   | 1.002                  | 1.003 | 1.003 | 1.003 | 1.002 | 1.002 | 1.002   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1989          |         |         |         | 1.008   | 1.005   | 1.006   | 1.007   | 1.004   | 1.004                  | 1.003 | 1.003 | 1.003 | 1.002 | 1.001 | 0.999   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1990          |         |         | 1.008   | 1.005   | 1.003   | 1.004   | 1.003   | 1.004   | 1.001                  | 1.003 | 1.003 | 1.003 | 1.002 | 1.001 | 0.999   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1991          |         | 1.006   | 1.005   | 1.002   | 1.004   | 1.001   | 1.003   | 1.003   | 1.003                  | 1.003 | 1.003 | 1.003 | 1.002 | 1.001 | 0.999   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1992          | 1.009   | 1.001   | 1.003   | 1.005   | 1.003   | 1.003   | 0.999   | 1.000   | 1.002                  | 1.000 | 1.002 | 1.002 | 0.998 | 0.998 | 0.998   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1993          | 1.005   | 1.013   | 1.013   | 1.001   | 1.001   | 0.999   | 0.996   | 1.000   | 1.000                  | 1.000 | 1.000 | 1.000 | 0.998 | 0.998 | 0.998   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1994          | 1.011   | 1.005   | 1.006   | 1.004   | 1.001   | 0.996   | 0.997   | 0.998   | 0.998                  | 0.999 | 0.999 | 0.999 | 0.998 | 0.998 | 0.998   | 1.000   | 0.998   | 1.000   | 1.000   | 1.000   | 1.000   |                |
| 1995          | 1.012   | 0.996   | 1.007   | 1.000   | 0.997   | 0.998   | 0.999   |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 1996          | 1.007   | 1.003   | 1.000   | 1.001   | 0.998   | 0.996   |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 1997          | 1.000   | 0.995   | 0.997   | 0.998   | 1.000   |         |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 1998          | 0.999   | 1.000   | 0.996   | 1.000   |         |         |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 1999          | 0.998   | 0.997   | 1.002   |         |         |         |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 2000          | 0.997   | 0.998   |         |         |         |         |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |
| 2001          | 1.002   |         |         |         |         |         |         |         |                        |       |       |       |       |       |         |         |         |         |         |         |         |                |

Selected (a)  
Cumulative

1.001  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

0.998  
1.032

(c) The ULT/411Inc factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.

**Paid Indemnity Loss Development Factors**

| Accident Year | <u>27/15</u> | <u>39/27</u> | <u>51/39</u> | <u>63/51</u> | <u>75/63</u> | <u>87/75</u> | <u>99/87</u> | Age-to-Age (in months) |       |       |       | <u>123/111</u> | <u>135/123</u> | <u>147/135</u> | <u>159/147</u> | <u>171/159</u> | <u>183/171</u> | <u>195/183</u> | <u>207/195</u> |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|-------|-------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1993          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                |                |                |                |                |
| 1994          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                |                |                | 1.002          | 1.003          |
| 1995          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                |                | 1.006          | 1.004          | 1.003          |
| 1996          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.004          | 1.005          | 1.004          |
| 1997          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.006          | 1.005          | 1.005          |
| 1998          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.007          | 1.006          | 1.006          |
| 1999          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.008          | 1.006          | 1.006          | 1.005          |
| 2000          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.007          | 1.004          | 1.004          |
| 2001          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.007          | 1.006          | 1.005          |
| 2002          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.007          | 1.006          | 1.005          | 1.005          |
| 2003          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2004          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2005          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2006          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2007          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2008          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2009          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2010          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2011          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2012          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2013          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2014          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2015          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2016          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| 2017          |              |              |              |              |              |              |              |                        |       |       |       |                |                |                |                | 1.009          | 1.008          | 1.005          | 1.005          |
| Selected (a)  | 2.392        | 1.460        | 1.202        | 1.109        | 1.063        | 1.047        | 1.038        | 1.024                  | 1.023 | 1.017 | 1.015 | 1.011          | 1.009          | 1.007          | 1.006          | 1.005          | 1.004          | 1.003          | 1.002          |
| Cumulative    | 6.261        | 2.617        | 1.793        | 1.491        | 1.345        | 1.265        | 1.208        | 1.164                  | 1.137 | 1.111 | 1.092 | 1.076          | 1.064          | 1.054          | 1.047          | 1.040          | 1.037          | 1.034          | 1.031          |

(a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors.

**Paid Indemnity Loss Development Factors (Continued)**

| Accident Year | 219/207 | 231/219 | 243/231 | 255/243 | 267/255 | 279/267 | 291/279 | 303/291 | 315/303 | 327/315 | 339/327 | 351/339 | 363/351 | 375/363 | 387/375 | 399/387 | 411/399 | 411Inc/411Pd (b) | UL/411Inc (c) |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|---------------|
| 1983          |         |         |         |         |         |         |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1984          |         |         |         |         |         |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1985          |         |         |         |         |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1986          |         |         |         |         |         |         | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1987          |         |         |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1988          |         |         |         |         | 1.001   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1989          |         |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1990          |         |         | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1991          |         | 1.002   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1992          | 1.001   | 1.002   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1993          | 1.002   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1994          | 1.004   | 1.002   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1995          | 1.005   | 1.004   | 1.003   | 1.002   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1996          | 1.005   | 1.004   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1997          | 1.004   | 1.003   | 1.002   | 1.002   | 1.003   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1998          | 1.005   | 1.004   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 1999          | 1.004   | 1.003   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 2000          | 1.004   | 1.003   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |
| 2001          | 1.005   | 1.004   | 1.003   | 1.003   | 1.002   | 1.002   | 1.002   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   | 1.001   |                  |               |

Selected (a)  
Cumulative

1.004  
1.036

1.004  
1.008

1.001  
1.009

1.001  
1.010

1.001  
1.011

1.001  
1.012

1.001  
1.012

1.001  
1.012

1.001  
1.012

1.001  
1.012

1.001  
1.012

- (b) Three-year averages of the 411Inc/411Pd factors are selected.  
(c) The UL/411Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.

**Paid Medical Loss Development Factors**

| Unadjusted (a)<br>Accident Year | 27/15 | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | Age-to-Age (in months) |  |  |  | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------|--|--|--|---------|---------|---------|---------|---------|---------|---------|---------|
| 1993                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         |         |         |         |         |
| 1994                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         |         |         |         |         |
| 1995                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         |         |         | 1.011   | 1.011   |
| 1996                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         |         | 1.018   | 1.012   | 1.013   |
| 1997                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.022   | 1.014   | 1.017   | 1.013   |
| 1998                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.019   | 1.014   | 1.014   | 1.015   |
| 1999                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.020   | 1.019   | 1.018   | 1.017   |
| 2000                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.021   | 1.017   | 1.018   | 1.017   |
| 2001                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.020   | 1.016   | 1.018   | 1.014   |
| 2002                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.022   | 1.021   | 1.012   | 1.011   |
| 2003                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.026   | 1.019   | 1.012   | 1.010   |
| 2004                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.027   | 1.015   | 1.011   | 1.009   |
| 2005                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.020   | 1.014   | 1.011   |         |
| 2006                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.013   |         |         |         |
| 2007                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.015   |         |         |         |
| 2008                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2009                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2010                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2011                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2012                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2013                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2014                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2015                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2016                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |
| 2017                            |       |       |       |       |       |       |       |                        |  |  |  |         |         |         |         | 1.018   |         |         |         |

| Adjusted (b)<br>Accident Year | 27/15 | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | Age-to-Age (in months) |  |  |  | 111/99 | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------|--|--|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2000                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2001                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2002                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2003                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2004                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2005                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2006                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2007                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2008                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2009                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2010                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2011                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2012                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2013                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2014                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2015                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2016                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |
| 2017                          |       |       |       |       |       |       |       |                        |  |  |  |        |         |         |         |         |         |         |         |         |

| Selected (c)                                 | 27/15 | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | 101/89 | 113/101 | 125/113 | 137/125 | 149/137 | 161/149 | 173/161 | 185/173 | 197/185 | 209/197 | 221/209 | 233/221 |
|--|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Cumulative Unadjusted for Impact of SB 1160  | 1.838 | 1.339 | 1.186 | 1.108 | 1.071 | 1.053 | 1.039 | 1.027  | 1.025   | 1.021   | 1.019   | 1.016   | 1.014   | 1.011   | 1.011   | 1.010   | 1.010   | 1.010   | 1.010   |
| Cumulative Adjusted for Impact of SB 1160(d) | 4.869 | 2.649 | 2.001 | 1.708 | 1.558 | 1.466 | 1.402 | 1.350  | 1.314   | 1.282   | 1.256   | 1.232   | 1.212   | 1.196   | 1.182   | 1.169   | 1.169   | 1.169   | 1.169   |

- (a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.  
 (b) These factors are adjusted for the losses paid prior to July 1, 2017 by -3.6%, -3.8%, -3.4%, -0.9%, and -0.1% to accident years 2011 to 2016, respectively, for the SB 1160 lien reforms.  
 (c) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent age-to-age factors.  
 (d) The cumulative factors for 27, 39, 51, 63, and 75 months are adjusted by -4.8%, -3.7%, -2.5%, -1.5%, and -0.7%, respectively, for the impact of the SB 1160 reductions in future lien filings.

Paid Medical Loss Development Factors (Continued)

| Unadjusted (a)<br>Accident Year | 219/207 | 231/219 | 243/231 | 255/243 | 267/255 | 279/267 | 291/279 | 303/291 | 315/303 | 327/315 | 339/327 | 351/339 | 363/351 | 375/363 | 387/375 | 399/387 | 411/399 | 411Inc/411Pd (e) | ULT/411Inc (f) |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|----------------|
| 1983                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1984                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1985                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1986                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1987                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1988                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1989                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1990                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1991                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1992                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1993                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1994                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1995                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1996                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1997                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1998                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1999                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 2000                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 2001                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| Adjusted (b)<br>Accident Year   | 219/207 | 231/219 | 243/231 | 255/243 | 267/255 | 279/267 | 291/279 | 303/291 | 315/303 | 327/315 | 339/327 | 351/339 | 363/351 | 375/363 | 387/375 | 399/387 | 411/399 | 411Inc/411Pd (e) | ULT/411Inc (f) |
| 1983                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1984                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1985                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1986                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1987                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1988                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1989                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1990                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1991                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1992                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1993                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1994                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1995                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1996                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1997                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1998                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 1999                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 2000                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| 2001                            |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |                  |                |
| Selected (c)                    | 1.010   | 1.009   | 1.007   | 1.007   | 1.009   | 1.008   | 1.006   | 1.005   | 1.005   | 1.003   | 1.003   | 1.003   | 1.003   | 1.004   | 1.003   | 1.002   | 1.002   | 1.027            |                |
| Cumulative                      | 1.158   | 1.146   | 1.136   | 1.128   | 1.120   | 1.110   | 1.101   | 1.094   | 1.089   | 1.083   | 1.079   | 1.076   | 1.073   | 1.070   | 1.065   | 1.062   | 1.059   |                  | 1.029          |

(e) Six-year averages of the 411Inc/411Pd factors are selected.  
(f) The ULT/411Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.



Selected Indemnity Development Factors - Paid to Age 255, Incurred from Age 255 to Ultimate

| Accident Year | 27/15    | 39/27    | 51/39    | 63/51    | 75/63    | 87/75 | 99/87 | 111/99 | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 | 219/207 | 231/219 | 243/231 | 255/243 | 255Inc/255Pd (b) |
|---------------|----------|----------|----------|----------|----------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| 1992          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1993          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.012            |
| 1994          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.013            |
| 1995          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.017            |
| 1996          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.022            |
| 1997          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.021            |
| 1998          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.020            |
| 1999          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         | 1.019            |
| 2000          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2001          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2002          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2003          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2004          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2005          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2006          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2007          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2008          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2009          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2010          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2011          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2012          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2013          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2014          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2015          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2016          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2017          |          |          |          |          |          |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| Selected (a)  | 2.386(c) | 1.436(c) | 1.181(c) | 1.093(c) | 1.055(c) | 1.047 | 1.038 | 1.024  | 1.023   | 1.017   | 1.015   | 1.011   | 1.009   | 1.007   | 1.006   | 1.005   | 1.004   | 1.004   | 1.003   | 1.003   | 1.020            |
| Cumulative    | 5.943    | 2.490    | 1.735    | 1.469    | 1.343    | 1.273 | 1.216 | 1.171  | 1.144   | 1.118   | 1.099   | 1.083   | 1.071   | 1.061   | 1.053   | 1.047   | 1.042   | 1.037   | 1.034   | 1.031   |                  |

- (a) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent paid age-to-age factors. Paid development factors are selected to age 255, where an incurred-to-paid ratio is chosen, and subsequently, six-year average incurred loss development factors are selected until ultimate.
- (b) A three-year average of the 255Inc/255Pd factor is selected.
- (c) Based on calculations shown on Exhibits 2.5.3 to 2.5.8. Each of these selections is calculated as the latest year paid indemnity age-to-age factor multiplied by an adjustment for changes in claim settlement rates.

**Selected Indemnity Development Factors - Paid to Age 255, Incurred from Age 255 to Ultimate (Continued)**

| Accident Year | Age-to-Age (in months) |                |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
|---------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|--|--|
|               | <u>267/255</u>         | <u>279/267</u> | <u>291/279</u> | <u>303/291</u> | <u>315/303</u> | <u>327/315</u> | <u>339/327</u> | <u>351/339</u> | <u>363/351</u> | <u>375/363</u> | <u>387/375</u> | <u>399/387</u> | <u>411/399</u> | <u>ULT/411Inc (d)</u> |  |  |
| 1983          |                        |                |                |                |                | 1.000          | 1.001          | 1.001          | 1.001          | 1.001          | 1.000          | 1.001          | 1.001          |                       |  |  |
| 1984          |                        |                |                |                | 1.001          | 1.001          | 1.000          | 1.001          | 1.001          | 0.999          | 1.000          | 1.000          | 1.001          |                       |  |  |
| 1985          |                        |                |                | 1.000          | 1.001          | 1.001          | 1.001          | 1.001          | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          |                       |  |  |
| 1986          |                        |                | 1.001          | 1.000          | 1.002          | 1.002          | 1.001          | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          |                       |  |  |
| 1987          |                        | 1.000          | 1.000          | 1.002          | 1.001          | 1.000          | 1.000          | 1.001          | 1.000          | 1.001          | 1.000          | 1.000          | 1.000          |                       |  |  |
| 1988          | 1.000                  | 1.002          | 1.002          | 1.001          | 1.000          | 1.000          | 1.000          | 1.001          | 1.000          | 1.000          | 1.000          |                |                |                       |  |  |
| 1989          | 1.001                  | 1.001          | 1.000          | 1.000          | 1.000          | 1.001          | 1.001          | 1.000          | 1.000          | 1.001          |                |                |                |                       |  |  |
| 1990          | 1.001                  | 1.000          | 1.000          | 1.000          | 1.000          | 1.001          | 1.001          | 1.000          | 1.001          |                |                |                |                |                       |  |  |
| 1991          | 1.000                  | 1.001          | 1.000          | 1.000          | 1.000          | 1.000          | 1.001          | 1.000          |                |                |                |                |                |                       |  |  |
| 1992          | 1.001                  | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          |                |                |                |                |                |                |                       |  |  |
| 1993          | 1.001                  | 1.000          | 1.000          | 1.000          | 1.000          | 1.000          |                |                |                |                |                |                |                |                       |  |  |
| 1994          | 1.001                  | 1.001          | 1.000          | 1.001          |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1995          | 1.000                  | 1.001          | 0.999          |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1996          | 1.001                  | 1.000          |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1997          | 1.001                  |                |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| Selected (a)  | 1.001                  | 1.001          | 1.000          | 1.000          | 1.000          | 1.000          | 1.001          | 1.001          | 1.000          | 1.000          | 1.000          | 1.000          | 1.001          |                       |  |  |
| Cumulative    | 1.008                  | 1.007          | 1.007          | 1.007          | 1.007          | 1.007          | 1.006          | 1.006          | 1.005          | 1.005          | 1.005          | 1.005          | 1.005          | 1.004                 |  |  |

(d) The ULT/411Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

A. Total Reported Indemnity Claim Counts

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | <u>15</u>                   | <u>27</u> | <u>39</u> | <u>51</u> | <u>63</u> | <u>75</u> |
| 2010             |                             |           |           |           |           | 117,072   |
| 2011             |                             |           |           |           | 117,546   | 117,857   |
| 2012             |                             |           |           | 123,618   | 124,309   | 124,709   |
| 2013             |                             |           | 130,821   | 132,051   | 132,711   | 132,957   |
| 2014             |                             | 134,139   | 137,213   | 138,538   | 139,166   |           |
| 2015             | 126,923                     | 140,436   | 143,248   | 144,168   |           |           |
| 2016             | 129,107                     | 143,306   | 146,570   |           |           |           |
| 2017             | 131,257                     | 144,096   |           |           |           |           |
| 2018             | 133,725                     |           |           |           |           |           |

B. Development of Total Reported Indemnity Claim Counts

| Accident<br>Year | Age-to-Age Development (in months): |              |              |              |              |                    |
|------------------|-------------------------------------|--------------|--------------|--------------|--------------|--------------------|
|                  | <u>15-27</u>                        | <u>27-39</u> | <u>39-51</u> | <u>51-63</u> | <u>63-75</u> | <u>75-Ultimate</u> |
| 2011             |                                     |              |              |              | 1.003        |                    |
| 2012             |                                     |              |              | 1.006        | 1.003        |                    |
| 2013             |                                     |              | 1.009        | 1.005        | 1.002        |                    |
| 2014             |                                     | 1.023        | 1.010        | 1.005        |              |                    |
| 2015             | 1.106                               | 1.020        | 1.006        |              |              |                    |
| 2016             | 1.110                               | 1.023        |              |              |              |                    |
| 2017             | 1.098                               |              |              |              |              |                    |
| Latest Year      | 1.098                               | 1.023        | 1.006        | 1.005        | 1.002        |                    |
| Cumulative       | 1.144                               | 1.042        | 1.019        | 1.013        | 1.008        | 1.006              |

| Acc. Year         | <u>2018</u> | <u>2017</u> | <u>2016</u> | <u>2015</u> | <u>2014</u> | <u>2013</u> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ult. Claim Counts | 153,022     | 150,198     | 149,375     | 145,989     | 140,288     | 133,781     |

C. Closed Indemnity Claim Counts

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | <u>15</u>                   | <u>27</u> | <u>39</u> | <u>51</u> | <u>63</u> | <u>75</u> |
| 2010             |                             |           |           |           |           | 102,249   |
| 2011             |                             |           |           |           | 98,064    | 104,137   |
| 2012             |                             |           |           | 95,688    | 105,186   | 111,618   |
| 2013             |                             |           | 89,082    | 104,487   | 114,606   | 120,841   |
| 2014             |                             | 72,458    | 95,318    | 111,796   | 121,882   |           |
| 2015             | 43,771                      | 78,191    | 103,252   | 119,602   |           |           |
| 2016             | 46,924                      | 83,729    | 109,606   |           |           |           |
| 2017             | 50,822                      | 88,430    |           |           |           |           |
| 2018             | 52,750                      |           |           |           |           |           |

Source: Accident year experience of insurers with available claim count data

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

D. Ultimate Indemnity Claim Settlement Ratio (a)

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|-------|
|                  | 15                          | 27    | 39    | 51    | 63    | 75    |
| 2010             |                             |       |       |       |       | 86.7% |
| 2011             |                             |       |       |       | 82.6% | 87.8% |
| 2012             |                             |       |       | 76.3% | 83.8% | 89.0% |
| 2013             |                             |       | 66.6% | 78.1% | 85.7% | 90.3% |
| 2014             |                             | 51.6% | 67.9% | 79.7% | 86.9% |       |
| 2015             | 30.0%                       | 53.6% | 70.7% | 81.9% |       |       |
| 2016             | 31.4%                       | 56.1% | 73.4% |       |       |       |
| 2017             | 33.8%                       | 58.9% |       |       |       |       |
| 2018             | 34.5%                       |       |       |       |       |       |

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

| Accident<br>Year | Evaluated as of (in months) |        |         |         |         |         |
|------------------|-----------------------------|--------|---------|---------|---------|---------|
|                  | 15                          | 27     | 39      | 51      | 63      | 75      |
| 2010             |                             |        |         |         |         | 106,513 |
| 2011             |                             |        |         |         | 103,086 | 107,177 |
| 2012             |                             |        |         | 102,801 | 109,018 | 113,345 |
| 2013             |                             |        | 98,164  | 109,600 | 116,229 | 120,841 |
| 2014             |                             | 82,595 | 102,938 | 114,931 | 121,882 |         |
| 2015             | 50,326                      | 85,952 | 107,122 | 119,602 |         |         |
| 2016             | 51,493                      | 87,945 | 109,606 |         |         |         |
| 2017             | 51,777                      | 88,430 |         |         |         |         |
| 2018             | 52,750                      |        |         |         |         |         |

F. Average Paid Indemnity per Closed Claim

| Accident<br>Year | Evaluated as of (in months) |       |        |        |        |        |
|------------------|-----------------------------|-------|--------|--------|--------|--------|
|                  | 15                          | 27    | 39     | 51     | 63     | 75     |
| 2010             |                             |       |        |        |        | 17,217 |
| 2011             |                             |       |        |        | 15,546 | 17,331 |
| 2012             |                             |       |        | 13,293 | 15,614 | 17,373 |
| 2013             |                             |       | 10,517 | 13,682 | 15,897 | 17,421 |
| 2014             |                             | 6,728 | 11,160 | 14,533 | 16,786 |        |
| 2015             | 3,011                       | 7,371 | 11,895 | 15,222 |        |        |
| 2016             | 3,255                       | 7,706 | 12,026 |        |        |        |
| 2017             | 3,348                       | 7,818 |        |        |        |        |
| 2018             | 3,587                       |       |        |        |        |        |

- (a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.
- (b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count data

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

G. Adjusted Average Paid Indemnity per Closed Claim (c)

| Accident<br>Year | Evaluated as of (in months) |       |        |        |        |        |
|------------------|-----------------------------|-------|--------|--------|--------|--------|
|                  | 15                          | 27    | 39     | 51     | 63     | 75     |
| 2010             |                             |       |        |        |        | 18,662 |
| 2011             |                             |       |        |        | 17,008 | 18,311 |
| 2012             |                             |       |        | 14,996 | 16,640 | 17,873 |
| 2013             |                             |       | 12,282 | 14,760 | 16,281 | 17,421 |
| 2014             |                             | 8,421 | 12,610 | 15,199 | 16,786 |        |
| 2015             | 3,571                       | 8,549 | 12,610 | 15,222 |        |        |
| 2016             | 3,622                       | 8,286 | 12,026 |        |        |        |
| 2017             | 3,421                       | 7,818 |        |        |        |        |
| 2018             | 3,587                       |       |        |        |        |        |
| 2019             |                             |       |        |        |        |        |

H. Adjusted Paid Indemnity on Closed Claims (in \$000) (d)

| Accident<br>Year | Evaluated as of (in months) |         |           |           |           |           |
|------------------|-----------------------------|---------|-----------|-----------|-----------|-----------|
|                  | 15                          | 27      | 39        | 51        | 63        | 75        |
| 2010             |                             |         |           |           |           | 1,987,696 |
| 2011             |                             |         |           |           | 1,753,322 | 1,962,511 |
| 2012             |                             |         |           | 1,541,616 | 1,814,054 | 2,025,767 |
| 2013             |                             |         | 1,205,624 | 1,617,693 | 1,892,283 | 2,105,196 |
| 2014             |                             | 695,524 | 1,298,053 | 1,746,849 | 2,045,904 |           |
| 2015             | 179,722                     | 734,804 | 1,350,814 | 1,820,533 |           |           |
| 2016             | 186,518                     | 728,722 | 1,318,119 |           |           |           |
| 2017             | 177,136                     | 691,315 |           |           |           |           |
| 2018             | 189,228                     |         |           |           |           |           |

I. Paid Indemnity on Open Claims (in \$000)

| Accident<br>Year | Evaluated as of (in months) |         |         |         |         |         |
|------------------|-----------------------------|---------|---------|---------|---------|---------|
|                  | 15                          | 27      | 39      | 51      | 63      | 75      |
| 2010             |                             |         |         |         |         | 586,444 |
| 2011             |                             |         |         |         | 637,689 | 521,246 |
| 2012             |                             |         |         | 748,593 | 625,081 | 499,655 |
| 2013             |                             |         | 851,808 | 743,827 | 591,414 | 460,088 |
| 2014             |                             | 815,536 | 891,814 | 751,082 | 588,448 |         |
| 2015             | 447,077                     | 852,237 | 879,871 | 713,230 |         |         |
| 2016             | 460,072                     | 827,118 | 831,765 |         |         |         |
| 2017             | 463,033                     | 823,281 |         |         |         |         |
| 2018             | 494,161                     |         |         |         |         |         |

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.

(d) Each amount is the product of the adjusted closed indemnity claim counts (Item E) and the adjusted average paid indemnity per closed claim (Item G), and divided by \$1,000.

Source: Accident year experience of insurers with available claim count data

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

J. Average Paid Indemnity per Open Claim for Indemnity Claims in Transition (e)

| Accident<br>Year | Evaluated as of (in months) |        |        |        |        |        |
|------------------|-----------------------------|--------|--------|--------|--------|--------|
|                  | 15                          | 27     | 39     | 51     | 63     | 75     |
| 2010             |                             |        |        |        |        | 39,563 |
| 2011             |                             |        |        |        | 32,732 | 37,992 |
| 2012             |                             |        |        | 26,802 | 32,687 | 38,168 |
| 2013             |                             |        | 20,408 | 26,985 | 32,666 | 37,974 |
| 2014             |                             | 13,222 | 21,287 | 28,086 | 34,046 |        |
| 2015             | 5,377                       | 13,692 | 21,999 | 29,033 |        |        |
| 2016             | 5,598                       | 13,883 | 22,502 |        |        |        |
| 2017             | 5,757                       | 14,790 |        |        |        |        |
| 2018             | 6,103                       |        |        |        |        |        |

K. Changes in Paid Indemnity on Open Claims Resulting from the Impact of Changes in  
Claim Settlement Rates (in \$000) (f)

| Accident<br>Year | Evaluated as of (in months) |          |          |          |          |          |
|------------------|-----------------------------|----------|----------|----------|----------|----------|
|                  | 15                          | 27       | 39       | 51       | 63       | 75       |
| 2010             |                             |          |          |          |          | -168,697 |
| 2011             |                             |          |          |          | -164,381 | -115,495 |
| 2012             |                             |          |          | -190,646 | -125,258 | -65,916  |
| 2013             |                             |          | -185,345 | -137,977 | -53,017  |          |
| 2014             |                             | -134,029 | -162,227 | -88,078  |          |          |
| 2015             | -35,244                     | -106,261 | -85,136  |          |          |          |
| 2016             | -25,578                     | -58,532  |          |          |          |          |
| 2017             | -5,492                      |          |          |          |          |          |

L. Adjusted Paid Indemnity on Open Claims (in \$000) (g)

| Accident<br>Year | Evaluated as of (in months) |         |         |         |         |         |
|------------------|-----------------------------|---------|---------|---------|---------|---------|
|                  | 15                          | 27      | 39      | 51      | 63      | 75      |
| 2010             |                             |         |         |         |         | 417,747 |
| 2011             |                             |         |         |         | 473,308 | 405,752 |
| 2012             |                             |         |         | 557,947 | 499,823 | 433,739 |
| 2013             |                             |         | 666,463 | 605,850 | 538,398 | 460,088 |
| 2014             |                             | 681,507 | 729,587 | 663,005 | 588,448 |         |
| 2015             | 411,834                     | 745,976 | 794,735 | 713,230 |         |         |
| 2016             | 434,494                     | 768,586 | 831,765 |         |         |         |
| 2017             | 457,541                     | 823,281 |         |         |         |         |
| 2018             | 494,161                     |         |         |         |         |         |

- (e) Each amount is equal to the product of [the average monthly indemnity payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly indemnity payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly indemnity payment per open indemnity claim at the same evaluation is used.
- (f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by the corresponding [average paid indemnity per open claim for indemnity claims in transition (Item J)].
- (g) Each amount is the sum of [paid indemnity on open claims (Item I)] and the corresponding [incremental changes in paid indemnity on open claims resulting from the impact of changes in claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count data

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

M. Adjusted Total Paid Indemnity (in \$000) (h)

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | 15                          | 27        | 39        | 51        | 63        | 75        |
| 2010             |                             |           |           |           |           | 2,405,443 |
| 2011             |                             |           |           |           | 2,226,630 | 2,368,262 |
| 2012             |                             |           |           | 2,099,563 | 2,313,877 | 2,459,507 |
| 2013             |                             |           | 1,872,087 | 2,223,543 | 2,430,681 | 2,565,284 |
| 2014             |                             | 1,377,031 | 2,027,640 | 2,409,853 | 2,634,351 |           |
| 2015             | 591,556                     | 1,480,780 | 2,145,549 | 2,533,762 |           |           |
| 2016             | 621,012                     | 1,497,308 | 2,149,884 |           |           |           |
| 2017             | 634,677                     | 1,514,596 |           |           |           |           |
| 2018             | 683,389                     |           |           |           |           |           |

N. Paid Indemnity Loss Development Factors Based on Adjusted Total Paid Indemnity

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|
|                  | 15-27                       | 27-39 | 39-51 | 51-63 | 63-75 |
| 2010             |                             |       |       |       |       |
| 2011             |                             |       |       |       | 1.064 |
| 2012             |                             |       |       | 1.102 | 1.063 |
| 2013             |                             |       | 1.188 | 1.093 | 1.055 |
| 2014             |                             | 1.472 | 1.189 | 1.093 |       |
| 2015             | 2.503                       | 1.449 | 1.181 |       |       |
| 2016             | 2.411                       | 1.436 |       |       |       |
| 2017             | 2.386                       |       |       |       |       |
| Latest Year      | 2.386                       | 1.436 | 1.181 | 1.093 | 1.055 |
| 3-Year Average   | 2.434                       | 1.452 | 1.186 | 1.096 | 1.061 |

O. Paid Indemnity Loss Development Factors (i)

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|
|                  | 15-27                       | 27-39 | 39-51 | 51-63 | 63-75 |
| 2011             |                             |       |       |       | 1.076 |
| 2012             |                             |       |       | 1.122 | 1.076 |
| 2013             |                             |       | 1.215 | 1.110 | 1.063 |
| 2014             |                             | 1.501 | 1.215 | 1.109 |       |
| 2015             | 2.468                       | 1.476 | 1.202 |       |       |
| 2016             | 2.403                       | 1.460 |       |       |       |
| 2017             | 2.392                       |       |       |       |       |

(h) Each amount is the sum of the adjusted paid indemnity on closed claims (Item H) and the adjusted paid indemnity on open claims (Item L).

(i) Development factors are based on paid indemnity losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item N.

Source: Accident year experience of insurers with available claim count data

**Paid Indemnity Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

P. Impact of Adjustment for Changes in Claim Settlement Rates (j)

| Accident<br>Year | Evaluated as of (in months) |              |              |              |              |
|------------------|-----------------------------|--------------|--------------|--------------|--------------|
|                  | <u>15-27</u>                | <u>27-39</u> | <u>39-51</u> | <u>51-63</u> | <u>63-75</u> |
| 2011             |                             |              |              |              | -1.13%       |
| 2012             |                             |              |              | -1.79%       | -1.17%       |
| 2013             |                             |              | -2.25%       | -1.55%       | -0.71%       |
| 2014             |                             | -1.89%       | -2.17%       | -1.41%       |              |
| 2015             | 1.43%                       | -1.81%       | -1.75%       |              |              |
| 2016             | 0.35%                       | -1.67%       |              |              |              |
| 2017             | -0.23%                      |              |              |              |              |

Q. Paid Indemnity Loss Development Factors Adjusted for Changes in  
Indemnity Claim Settlement Rates (k)

| Accident<br>Year | Evaluated as of (in months) |              |              |              |              |
|------------------|-----------------------------|--------------|--------------|--------------|--------------|
|                  | <u>15-27</u>                | <u>27-39</u> | <u>39-51</u> | <u>51-63</u> | <u>63-75</u> |
| 2011             |                             |              |              |              | 1.064        |
| 2012             |                             |              |              | 1.102        | 1.063        |
| 2013             |                             |              | 1.189        | 1.094        | 1.055        |
| 2014             |                             | 1.473        | 1.189        | 1.093        |              |
| 2015             | 2.503                       | 1.449        | 1.181        |              |              |
| 2016             | 2.411                       | 1.436        |              |              |              |
| 2017             | 2.386                       |              |              |              |              |
| Latest Year      | 2.386                       | 1.436        | 1.181        | 1.093        | 1.055        |
| 3-Year Average   | 2.434                       | 1.453        | 1.186        | 1.096        | 1.061        |

(j) Each factor represents the change in age-to-age development factors from Item O to those in Item N.

(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item P)] and [the paid indemnity age-to-age development factor from Exhibit 2.5.1].

Source: Accident year experience of insurers with available claim count data



Selected Medical Development Factors - Paid to Age 255, Incurred from Age 255 to Ultimate

| Accident Year | 27/15 | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | 111/99 | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 | 219/207 | 231/219 | 243/231 | 255/243 | 255Inc/255Pd (b) |
|---------------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| 1992          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1993          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1994          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1995          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1996          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1997          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1998          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1999          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2000          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2001          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2002          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2003          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2004          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2005          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2006          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2007          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2008          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2009          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2010          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2011          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2012          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2013          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2014          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2015          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2016          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2017          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |

| Adjusted (b)<br>Accident Year | 27/15 | 39/27 | 51/39 | 63/51 | 75/63 | 87/75 | 99/87 | 111/99 | 123/111 | 135/123 | 147/135 | 159/147 | 171/159 | 183/171 | 195/183 | 207/195 | 219/207 | 231/219 | 243/231 | 255/243 | 255Inc/255Pd (b) |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| 1996                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1997                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1998                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 1999                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2000                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2001                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2002                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2003                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2004                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2005                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2006                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2007                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2008                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2009                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2010                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2011                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2012                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2013                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2014                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2015                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2016                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |
| 2017                          |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |         |         |         |                  |

|  |          |          |          |          |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--|----------|----------|----------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Selected (c)                                 | 1.837(e) | 1.327(e) | 1.170(e) | 1.094(e) | 1.064(e) | 1.053 | 1.039 | 1.027 | 1.025 | 1.021 | 1.019 | 1.016 | 1.014 | 1.011 | 1.011 | 1.010 | 1.010 | 1.009 | 1.007 | 1.007 | 1.082 |
| Cumulative Unadjusted for Impact of SB 1160  | 4.880    | 2.656    | 2.002    | 1.712    | 1.565    | 1.472 | 1.397 | 1.345 | 1.310 | 1.278 | 1.251 | 1.228 | 1.208 | 1.192 | 1.178 | 1.165 | 1.154 | 1.142 | 1.132 | 1.124 |       |
| Cumulative Adjusted for Impact of SB 1160(f) | 4.646    | 2.528    | 1.928    | 1.669    | 1.542    | 1.461 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

- (a) Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.  
 (b) These factors are adjusted for the losses paid prior to July 1, 2017 by -3.6%, -3.8%, -3.4%, -0.9%, and -0.1% to accident years 2011 to 2016, respectively, for the SB 1160 lien reforms.  
 (c) Selections are latest year for the 15-to-27 month through 99-to-111 month factors and three-year average for the subsequent paid age-to-age factors. Paid development factors are selected to age 255, where an incurred-to-paid ratio is chosen, and subsequently, six-year average incurred loss development factors are selected until ultimate.  
 (d) A three-year average of the 255Inc/255Pd factor is selected.  
 (e) Based on calculations shown on Exhibits 2.6.3 to 2.6.8. Each of these selections are calculated as the latest year paid medical age-to-age factor multiplied by an adjustment for changes in claim settlement rates.  
 (f) The cumulative factors for 27, 39, 51, 63, and 75 months are adjusted by -4.8%, -3.7%, -2.5%, -1.5%, and -0.7%, respectively, for the impact of the SB 1160 reductions in future lien filings.

**Selected Medical Development Factors - Paid to Age 255, Incurred from Age 255 to Ultimate (Continued)**

| Accident Year | Age-to-Age (in months) |                |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
|---------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|--|--|
|               | <u>267/255</u>         | <u>279/267</u> | <u>291/279</u> | <u>303/291</u> | <u>315/303</u> | <u>327/315</u> | <u>339/327</u> | <u>351/339</u> | <u>363/351</u> | <u>375/363</u> | <u>387/375</u> | <u>399/387</u> | <u>411/399</u> | <u>ULT/411Inc (g)</u> |  |  |
| 1983          |                        |                |                |                |                |                |                |                | 1.003          | 1.003          | 1.002          | 0.997          | 0.999          |                       |  |  |
| 1984          |                        |                |                |                |                |                |                | 1.000          | 1.004          | 0.999          | 0.999          | 1.001          | 1.000          |                       |  |  |
| 1985          |                        |                |                |                |                |                | 1.003          | 1.004          | 1.000          | 0.999          | 0.999          | 1.000          | 1.001          |                       |  |  |
| 1986          |                        |                |                |                |                | 1.005          | 1.004          | 1.002          | 1.001          | 0.998          | 1.004          | 1.004          |                |                       |  |  |
| 1987          |                        |                |                |                | 1.003          | 1.005          | 1.003          | 1.001          | 0.999          | 1.001          | 0.999          |                |                |                       |  |  |
| 1988          |                        |                |                | 1.005          | 1.002          | 1.003          | 1.002          | 1.000          | 0.998          | 1.000          |                |                |                |                       |  |  |
| 1989          |                        |                | 1.007          | 1.000          | 1.002          | 0.999          | 0.999          | 1.000          | 0.999          |                |                |                |                |                       |  |  |
| 1990          |                        | 1.002          | 1.004          | 0.997          | 1.001          | 1.001          | 0.999          | 0.998          |                |                |                |                |                |                       |  |  |
| 1991          | 1.004                  | 1.001          | 1.003          | 1.001          | 0.999          | 0.999          | 0.998          |                |                |                |                |                |                |                       |  |  |
| 1992          | 1.003                  | 1.003          | 0.999          | 1.000          | 1.002          | 0.998          |                |                |                |                |                |                |                |                       |  |  |
| 1993          | 1.001                  | 0.999          | 0.996          | 1.000          | 1.000          |                |                |                |                |                |                |                |                |                       |  |  |
| 1994          | 1.001                  | 0.996          | 0.997          | 0.998          |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1995          | 0.997                  | 0.998          | 0.999          |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1996          | 0.998                  |                |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| 1997          | 1.000                  |                |                |                |                |                |                |                |                |                |                |                |                |                       |  |  |
| Selected (c)  | 1.000                  | 0.999          | 1.000          | 0.999          | 1.001          | 1.001          | 1.001          | 1.001          | 1.000          | 1.000          | 1.001          | 1.001          | 1.000          |                       |  |  |
| Cumulative    | 1.032                  | 1.032          | 1.033          | 1.033          | 1.034          | 1.033          | 1.032          | 1.031          | 1.030          | 1.030          | 1.030          | 1.030          | 1.029          | 1.029                 |  |  |

(g) The ULT/411Inc tail factor was calculated based on an inverse power curve fit to a six-year average of the 111-to-123 through 339-to-351 factors, excluding most recent three evaluations, and extrapolated to 80 development years.

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

A. Total Reported Indemnity Claim Counts

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | <u>15</u>                   | <u>27</u> | <u>39</u> | <u>51</u> | <u>63</u> | <u>75</u> |
| 2010             |                             |           |           |           |           | 117,072   |
| 2011             |                             |           |           |           | 117,546   | 117,857   |
| 2012             |                             |           |           | 123,618   | 124,309   | 124,709   |
| 2013             |                             |           | 130,821   | 132,051   | 132,711   | 132,957   |
| 2014             |                             | 134,139   | 137,213   | 138,538   | 139,166   |           |
| 2015             | 126,923                     | 140,436   | 143,248   | 144,168   |           |           |
| 2016             | 129,107                     | 143,306   | 146,570   |           |           |           |
| 2017             | 131,257                     | 144,096   |           |           |           |           |
| 2018             | 133,725                     |           |           |           |           |           |

B. Development of Total Reported Indemnity Claim Counts

| Accident<br>Year  | Age-to-Age Development (in months): |              |              |              |              |                    |
|-------------------|-------------------------------------|--------------|--------------|--------------|--------------|--------------------|
|                   | <u>15-27</u>                        | <u>27-39</u> | <u>39-51</u> | <u>51-63</u> | <u>63-75</u> | <u>75-Ultimate</u> |
| 2011              |                                     |              |              |              | 1.003        |                    |
| 2012              |                                     |              |              | 1.006        | 1.003        |                    |
| 2013              |                                     |              | 1.009        | 1.005        | 1.002        |                    |
| 2014              |                                     | 1.023        | 1.010        | 1.005        |              |                    |
| 2015              | 1.106                               | 1.020        | 1.006        |              |              |                    |
| 2016              | 1.110                               | 1.023        |              |              |              |                    |
| 2017              | 1.098                               |              |              |              |              |                    |
| Latest Year       | 1.098                               | 1.023        | 1.006        | 1.005        | 1.002        |                    |
| Cumulative        | 1.144                               | 1.042        | 1.019        | 1.013        | 1.008        | 1.006              |
| Acc. Year         | <u>2018</u>                         | <u>2017</u>  | <u>2016</u>  | <u>2015</u>  | <u>2014</u>  | <u>2013</u>        |
| Ult. Claim Counts | 153,022                             | 150,198      | 149,375      | 145,989      | 140,288      | 133,781            |

C. Closed Indemnity Claim Counts

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | <u>15</u>                   | <u>27</u> | <u>39</u> | <u>51</u> | <u>63</u> | <u>75</u> |
| 2010             |                             |           |           |           |           | 102,249   |
| 2011             |                             |           |           |           | 98,064    | 104,137   |
| 2012             |                             |           |           | 95,688    | 105,186   | 111,618   |
| 2013             |                             |           | 89,082    | 104,487   | 114,606   | 120,841   |
| 2014             |                             | 72,458    | 95,318    | 111,796   | 121,882   |           |
| 2015             | 43,771                      | 78,191    | 103,252   | 119,602   |           |           |
| 2016             | 46,924                      | 83,729    | 109,606   |           |           |           |
| 2017             | 50,822                      | 88,430    |           |           |           |           |
| 2018             | 52,750                      |           |           |           |           |           |

Source: Accident year experience of insurers with available claim count and paid loss data

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

D. Ultimate Indemnity Claim Settlement Ratio (a)

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|-------|
|                  | 15                          | 27    | 39    | 51    | 63    | 75    |
| 2010             |                             |       |       |       |       | 86.7% |
| 2011             |                             |       |       |       | 82.6% | 87.8% |
| 2012             |                             |       |       | 76.3% | 83.8% | 89.0% |
| 2013             |                             |       | 66.6% | 78.1% | 85.7% | 90.3% |
| 2014             |                             | 51.6% | 67.9% | 79.7% | 86.9% |       |
| 2015             | 30.0%                       | 53.6% | 70.7% | 81.9% |       |       |
| 2016             | 31.4%                       | 56.1% | 73.4% |       |       |       |
| 2017             | 33.8%                       | 58.9% |       |       |       |       |
| 2018             | 34.5%                       |       |       |       |       |       |

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

| Accident<br>Year | Evaluated as of (in months) |        |         |         |         |         |
|------------------|-----------------------------|--------|---------|---------|---------|---------|
|                  | 15                          | 27     | 39      | 51      | 63      | 75      |
| 2010             |                             |        |         |         |         | 106,513 |
| 2011             |                             |        |         |         | 103,086 | 107,177 |
| 2012             |                             |        |         | 102,801 | 109,018 | 113,345 |
| 2013             |                             |        | 98,164  | 109,600 | 116,229 | 120,841 |
| 2014             |                             | 82,595 | 102,938 | 114,931 | 121,882 |         |
| 2015             | 50,326                      | 85,952 | 107,122 | 119,602 |         |         |
| 2016             | 51,493                      | 87,945 | 109,606 |         |         |         |
| 2017             | 51,777                      | 88,430 |         |         |         |         |
| 2018             | 52,750                      |        |         |         |         |         |

F. Average Paid Medical per Closed Indemnity Claim

| Accident<br>Year | Evaluated as of (in months) |       |        |        |        |        |
|------------------|-----------------------------|-------|--------|--------|--------|--------|
|                  | 15                          | 27    | 39     | 51     | 63     | 75     |
| 2010             |                             |       |        |        |        | 21,594 |
| 2011             |                             |       |        |        | 18,148 | 20,847 |
| 2012             |                             |       |        | 14,698 | 17,650 | 19,875 |
| 2013             |                             |       | 10,992 | 14,397 | 17,085 | 18,946 |
| 2014             |                             | 6,891 | 11,019 | 14,444 | 16,895 |        |
| 2015             | 3,253                       | 7,298 | 11,378 | 14,620 |        |        |
| 2016             | 3,490                       | 7,529 | 11,363 |        |        |        |
| 2017             | 3,597                       | 7,757 |        |        |        |        |
| 2018             | 3,706                       |       |        |        |        |        |

- (a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.
- (b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count and paid loss data

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

G. Adjusted Average Paid Medical per Closed Indemnity Claim (c)

| Accident<br>Year | Evaluated as of (in months) |       |        |        |        |        |
|------------------|-----------------------------|-------|--------|--------|--------|--------|
|                  | 15                          | 27    | 39     | 51     | 63     | 75     |
| 2010             |                             |       |        |        |        | 23,832 |
| 2011             |                             |       |        |        | 20,354 | 22,303 |
| 2012             |                             |       |        | 16,857 | 18,944 | 20,523 |
| 2013             |                             |       | 12,887 | 15,698 | 17,551 | 18,946 |
| 2014             |                             | 8,485 | 12,488 | 15,165 | 16,895 |        |
| 2015             | 3,794                       | 8,374 | 12,074 | 14,620 |        |        |
| 2016             | 3,839                       | 8,052 | 11,363 |        |        |        |
| 2017             | 3,668                       | 7,757 |        |        |        |        |
| 2018             | 3,706                       |       |        |        |        |        |

H. Adjusted Paid Medical (in \$000) on Closed Indemnity Claims (d)

| Accident<br>Year | Evaluated as of (in months) |         |           |           |           |           |
|------------------|-----------------------------|---------|-----------|-----------|-----------|-----------|
|                  | 15                          | 27      | 39        | 51        | 63        | 75        |
| 2010             |                             |         |           |           |           | 2,538,378 |
| 2011             |                             |         |           |           | 2,098,199 | 2,390,421 |
| 2012             |                             |         |           | 1,732,971 | 2,065,274 | 2,326,206 |
| 2013             |                             |         | 1,265,070 | 1,720,499 | 2,039,952 | 2,289,451 |
| 2014             |                             | 700,859 | 1,285,528 | 1,742,984 | 2,059,141 |           |
| 2015             | 190,936                     | 719,787 | 1,293,402 | 1,748,594 |           |           |
| 2016             | 197,688                     | 708,109 | 1,245,465 |           |           |           |
| 2017             | 189,907                     | 685,928 |           |           |           |           |
| 2018             | 195,506                     |         |           |           |           |           |

I. Paid Medical on Open Indemnity Claims (in \$000)

| Accident<br>Year | Evaluated as of (in months) |         |         |         |         |         |
|------------------|-----------------------------|---------|---------|---------|---------|---------|
|                  | 15                          | 27      | 39      | 51      | 63      | 75      |
| 2010             |                             |         |         |         |         | 881,027 |
| 2011             |                             |         |         |         | 889,192 | 737,367 |
| 2012             |                             |         |         | 936,648 | 802,433 | 653,015 |
| 2013             |                             |         | 958,905 | 865,789 | 690,382 | 550,568 |
| 2014             |                             | 878,812 | 936,099 | 795,252 | 625,605 |         |
| 2015             | 524,151                     | 890,395 | 887,971 | 736,049 |         |         |
| 2016             | 555,574                     | 869,188 | 840,342 |         |         |         |
| 2017             | 571,268                     | 859,642 |         |         |         |         |
| 2018             | 599,458                     |         |         |         |         |         |

- (c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.  
(d) Each amount is equal to the product of [adjusted closed indemnity claim counts (Item E)] and [adjusted average paid medical per closed indemnity claim (Item G)], and divided by \$1,000.

Source: Accident year experience of insurers with available claim count and paid loss data

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

J. Average Paid Medical per Open Indemnity Claim for Indemnity Claims in Transition (e)

| Accident<br>Year | Evaluated as of (in months) |        |        |        |        |        |
|------------------|-----------------------------|--------|--------|--------|--------|--------|
|                  | 15                          | 27     | 39     | 51     | 63     | 75     |
| 2010             |                             |        |        |        |        | 59,436 |
| 2011             |                             |        |        |        | 45,642 | 53,744 |
| 2012             |                             |        |        | 33,536 | 41,962 | 49,883 |
| 2013             |                             |        | 22,974 | 31,410 | 38,132 | 45,441 |
| 2014             |                             | 14,248 | 22,344 | 29,738 | 36,196 |        |
| 2015             | 6,304                       | 14,305 | 22,201 | 29,962 |        |        |
| 2016             | 6,760                       | 14,589 | 22,734 |        |        |        |
| 2017             | 7,102                       | 15,443 |        |        |        |        |
| 2018             | 7,403                       |        |        |        |        |        |

K. Changes in Paid Medical on Open Indemnity Claims Resulting from the Impact of Changes in  
Indemnity Claim Settlement Rates (in \$000) (f)

| Accident<br>Year | Evaluated as of (in months) |          |          |          |          |          |
|------------------|-----------------------------|----------|----------|----------|----------|----------|
|                  | 15                          | 27       | 39       | 51       | 63       | 75       |
| 2010             |                             |          |          |          |          | -253,437 |
| 2011             |                             |          |          |          | -229,213 | -163,382 |
| 2012             |                             |          |          | -238,538 | -160,797 | -86,148  |
| 2013             |                             |          | -208,648 | -160,600 | -61,888  |          |
| 2014             |                             | -144,428 | -170,282 | -93,257  |          |          |
| 2015             | -41,320                     | -111,019 | -85,920  |          |          |          |
| 2016             | -30,887                     | -61,509  |          |          |          |          |
| 2017             | -6,776                      |          |          |          |          |          |

L. Adjusted Paid Medical on Open Indemnity Claims (in \$000) (g)

| Accident<br>Year | Evaluated as of (in months) |         |         |         |         |         |
|------------------|-----------------------------|---------|---------|---------|---------|---------|
|                  | 15                          | 27      | 39      | 51      | 63      | 75      |
| 2010             |                             |         |         |         |         | 627,590 |
| 2011             |                             |         |         |         | 659,979 | 573,985 |
| 2012             |                             |         |         | 698,110 | 641,636 | 566,868 |
| 2013             |                             |         | 750,257 | 705,189 | 628,494 | 550,568 |
| 2014             |                             | 734,383 | 765,816 | 701,995 | 625,605 |         |
| 2015             | 482,831                     | 779,376 | 802,051 | 736,049 |         |         |
| 2016             | 524,686                     | 807,679 | 840,342 |         |         |         |
| 2017             | 564,493                     | 859,642 |         |         |         |         |
| 2018             | 599,458                     |         |         |         |         |         |

- (e) Each amount is equal to the product of [the average monthly medical payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly medical payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly medical payment per open indemnity claim at the same evaluation is used.
- (f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by [the corresponding average paid medical per open indemnity claim for indemnity claims in transition (Item J)].
- (g) Each amount is the sum of [paid medical on open indemnity claims (Item I)] and the corresponding [incremental changes in paid medical on open indemnity claims resulting from the impact of changes in indemnity claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count and paid loss data

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

M. Paid Medical on Medical-Only Claims (in \$000)

| Accident<br>Year | Evaluated as of (in months) |         |         |         |         |         |
|------------------|-----------------------------|---------|---------|---------|---------|---------|
|                  | 15                          | 27      | 39      | 51      | 63      | 75      |
| 2010             |                             |         |         |         |         | 224,739 |
| 2011             |                             |         |         |         | 212,295 | 215,610 |
| 2012             |                             |         |         | 215,763 | 220,607 | 224,998 |
| 2013             |                             |         | 214,646 | 220,813 | 227,481 | 229,971 |
| 2014             |                             | 229,384 | 239,113 | 245,908 | 248,545 |         |
| 2015             | 204,311                     | 241,585 | 250,724 | 256,069 |         |         |
| 2016             | 217,396                     | 257,619 | 267,684 |         |         |         |
| 2017             | 237,663                     | 277,065 |         |         |         |         |
| 2018             | 251,282                     |         |         |         |         |         |

N. Adjusted Total Paid Medical (in \$000) (h)

| Accident<br>Year | Evaluated as of (in months) |           |           |           |           |           |
|------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|
|                  | 15                          | 27        | 39        | 51        | 63        | 75        |
| 2010             |                             |           |           |           |           | 3,434,802 |
| 2011             |                             |           |           |           | 3,215,886 | 3,437,740 |
| 2012             |                             |           |           | 2,646,844 | 2,927,516 | 3,118,071 |
| 2013             |                             |           | 2,229,972 | 2,646,501 | 2,895,927 | 3,069,990 |
| 2014             |                             | 1,664,627 | 2,290,457 | 2,690,887 | 2,933,291 |           |
| 2015             | 878,078                     | 1,740,749 | 2,346,178 | 2,740,711 |           |           |
| 2016             | 939,770                     | 1,773,408 | 2,353,491 |           |           |           |
| 2017             | 992,063                     | 1,822,635 |           |           |           |           |
| 2018             | 1,046,247                   |           |           |           |           |           |

O. Paid Medical Loss Development Factors Based on Adjusted Total Paid Medical

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|
|                  | 15-27                       | 27-39 | 39-51 | 51-63 | 63-75 |
| 2011             |                             |       |       |       | 1.069 |
| 2012             |                             |       |       | 1.106 | 1.065 |
| 2013             |                             |       | 1.187 | 1.094 | 1.060 |
| 2014             |                             | 1.376 | 1.175 | 1.090 |       |
| 2015             | 1.982                       | 1.348 | 1.168 |       |       |
| 2016             | 1.887                       | 1.327 |       |       |       |
| 2017             | 1.837                       |       |       |       |       |
| Latest Year      | 1.837                       | 1.327 | 1.168 | 1.090 | 1.060 |

(h) Each amount is the sum of [adjusted paid medical on closed indemnity claims (Item H)], [adjusted paid medical on open indemnity claims (Item L)] and [paid medical on medical-only claims (Item M)]. The effect of the paid cost of medical cost containment programs are only present for accident years 2011 and prior.

Source: Accident year experience of insurers with available claim count and paid loss data

**Paid Medical Loss Development Factors  
With Separate Adjustments on Open and Closed Claims  
for Changes in Claim Settlement Rates**

P. Paid Medical Loss Development Factors (i)

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|
|                  | 15-27                       | 27-39 | 39-51 | 51-63 | 63-75 |
| 2011             |                             |       |       |       | 1.082 |
| 2012             |                             |       |       | 1.125 | 1.075 |
| 2013             |                             |       | 1.204 | 1.110 | 1.067 |
| 2014             |                             | 1.384 | 1.193 | 1.104 |       |
| 2015             | 1.955                       | 1.359 | 1.185 |       |       |
| 2016             | 1.876                       | 1.339 |       |       |       |
| 2017             | 1.838                       |       |       |       |       |

Q. Impact of Adjustment for Changes in Indemnity Claim Settlement Rates (j)

| Accident<br>Year | Evaluated as of (in months) |        |        |        |        |
|------------------|-----------------------------|--------|--------|--------|--------|
|                  | 15-27                       | 27-39  | 39-51  | 51-63  | 63-75  |
| 2011             |                             |        |        |        | -1.17% |
| 2012             |                             |        |        | -1.72% | -0.95% |
| 2013             |                             |        | -1.39% | -1.42% | -0.69% |
| 2014             |                             | -0.61% | -1.56% | -1.30% |        |
| 2015             | 1.40%                       | -0.81% | -1.39% |        |        |
| 2016             | 0.59%                       | -0.91% |        |        |        |
| 2017             | -0.03%                      |        |        |        |        |

R. Paid Medical Loss Development Factors Adjusted for Changes in Indemnity  
Claim Settlement Rates (k)

| Accident<br>Year | Evaluated as of (in months) |       |       |       |       |
|------------------|-----------------------------|-------|-------|-------|-------|
|                  | 15-27                       | 27-39 | 39-51 | 51-63 | 63-75 |
| 2011             |                             |       |       |       | 1.069 |
| 2012             |                             |       |       | 1.109 | 1.068 |
| 2013             |                             |       | 1.189 | 1.098 | 1.064 |
| 2014             |                             | 1.378 | 1.179 | 1.094 |       |
| 2015             | 1.982                       | 1.350 | 1.170 |       |       |
| 2016             | 1.887                       | 1.327 |       |       |       |
| 2017             | 1.837                       |       |       |       |       |
| Latest Year      | 1.837                       | 1.327 | 1.170 | 1.094 | 1.064 |
| 3-Year Average   | 1.902                       | 1.352 | 1.179 | 1.100 | 1.067 |

- (i) Development factors are based on paid medical losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item O.
- (j) Each factor represents the change in age-to-age development factors from Item P to those in Item O.
- (k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item Q)] and [the adjusted paid medical age-to-age development factor from Exhibit 2.6.1].

Source: Accident year experience of insurers with available claim count and paid loss data



**Developed Indemnity Loss Ratios Using Selected Loss Development Factors  
Adjusted for Changes in Claim Settlement Rates  
Based on Experience as of March 31, 2019**

| Accident Year | Development Factors                         |                  |                   |   |
|---------------|---|------------------|-------------------|---|
|               | (1)<br>Paid or<br>Incurred Loss<br>Ratio(a) | (2)<br>Annual(b) | (3)<br>Cumulative | (4)<br>Projected<br>Ultimate<br>Loss Ratio<br>(4) = (1) x (3) |
| 1986          | 0.396                                       | 1.001            | 1.005             | 0.398   |
| 1987          | 0.346                                       | 1.000            | 1.005             | 0.347   |
| 1988          | 0.330                                       | 1.000            | 1.005             | 0.332   |
| 1989          | 0.343                                       | 1.000            | 1.005             | 0.345   |
| 1990          | 0.398                                       | 1.000            | 1.005             | 0.400   |
| 1991          | 0.424                                       | 1.001            | 1.006             | 0.427   |
| 1992          | 0.350                                       | 1.001            | 1.006             | 0.352   |
| 1993          | 0.288                                       | 1.000            | 1.007             | 0.289   |
| 1994          | 0.327                                       | 1.000            | 1.007             | 0.330   |
| 1995          | 0.473                                       | 1.000            | 1.007             | 0.476   |
| 1996          | 0.530                                       | 1.000            | 1.007             | 0.533   |
| 1997          | 0.599                                       | 1.001            | 1.007             | 0.604   |
| 1998          | 0.651                                       | 1.001            | 1.008             | 0.656   |
| 1999          | 0.670                                       | 1.003            | 1.031             | 0.690   |
| 2000          | 0.577                                       | 1.003            | 1.034             | 0.597   |
| 2001          | 0.477                                       | 1.004            | 1.037             | 0.495   |
| 2002          | 0.354                                       | 1.004            | 1.042             | 0.369   |
| 2003          | 0.232                                       | 1.005            | 1.047             | 0.243   |
| 2004          | 0.138                                       | 1.006            | 1.053             | 0.145   |
| 2005          | 0.117                                       | 1.007            | 1.061             | 0.124   |
| 2006          | 0.150                                       | 1.009            | 1.071             | 0.161   |
| 2007          | 0.205                                       | 1.011            | 1.083             | 0.222   |
| 2008          | 0.257                                       | 1.015            | 1.099             | 0.283   |
| 2009          | 0.296                                       | 1.017            | 1.118             | 0.331   |
| 2010          | 0.281                                       | 1.023            | 1.144             | 0.321   |
| 2011          | 0.257                                       | 1.024            | 1.171             | 0.300   |
| 2012          | 0.223                                       | 1.038            | 1.216             | 0.271   |
| 2013          | 0.184                                       | 1.047            | 1.273             | 0.235   |
| 2014          | 0.166                                       | 1.055            | 1.343             | 0.223   |
| 2015          | 0.149                                       | 1.093            | 1.469             | 0.218   |
| 2016          | 0.120                                       | 1.181            | 1.735             | 0.208   |
| 2017          | 0.086                                       | 1.436            | 2.490             | 0.213   |
| 2018          | 0.039                                       | 2.386            | 5.943             | 0.233   |

(a) Based on Exhibit 1. To reflect the selected loss development methodology, reported loss ratios displayed prior to 1999 are on an incurred basis. Subsequent reported loss ratios are on a paid basis.

(b) See Exhibits 2.5.1 and 2.5.2.

**Developed Medical Loss Ratios Using Selected Loss Development Factors  
Adjusted for Changes in Claim Settlement Rates  
Based on Experience as of March 31, 2019**

|                  | (1)                               | (2)       | (3)                          | (4)                        | (5)  |
|------------------|-----------------------------------|-----------|------------------------------|----------------------------|--|
|                  | <b>Reform Adjusted</b>            |           |                              |                            |  |
|                  | <b>Development Factors</b>        |           |                              |                            |  |
|                  |                                   |           | <b>Cumulative</b>            |                            |  |
| Accident<br>Year | Paid or Incurred<br>Loss Ratio(a) | Annual(b) | Unadjusted for<br>Reforms(b) | Adjusted for<br>Reforms(b) | Projected<br>Ultimate<br>Loss Ratio<br>(1) x (4) |
| 1986             | 0.335                             | 1.000     | 1.029                        | 1.029                      | 0.345  |
| 1987             | 0.314                             | 1.001     | 1.030                        | 1.030                      | 0.323  |
| 1988             | 0.304                             | 1.001     | 1.030                        | 1.030                      | 0.314  |
| 1989             | 0.325                             | 1.000     | 1.030                        | 1.030                      | 0.335  |
| 1990             | 0.366                             | 1.000     | 1.030                        | 1.030                      | 0.377  |
| 1991             | 0.383                             | 1.001     | 1.031                        | 1.031                      | 0.395  |
| 1992             | 0.319                             | 1.001     | 1.032                        | 1.032                      | 0.329  |
| 1993             | 0.267                             | 1.001     | 1.033                        | 1.033                      | 0.276  |
| 1994             | 0.308                             | 1.001     | 1.034                        | 1.034                      | 0.318  |
| 1995             | 0.453                             | 0.999     | 1.033                        | 1.033                      | 0.468  |
| 1996             | 0.485                             | 1.000     | 1.033                        | 1.033                      | 0.500  |
| 1997             | 0.545                             | 0.999     | 1.032                        | 1.032                      | 0.563  |
| 1998             | 0.658                             | 1.000     | 1.032                        | 1.032                      | 0.679  |
| 1999             | 0.663                             | 1.007     | 1.124                        | 1.124                      | 0.745  |
| 2000             | 0.598                             | 1.007     | 1.132                        | 1.132                      | 0.677  |
| 2001             | 0.526                             | 1.009     | 1.142                        | 1.142                      | 0.601  |
| 2002             | 0.405                             | 1.010     | 1.154                        | 1.154                      | 0.467  |
| 2003             | 0.257                             | 1.010     | 1.165                        | 1.165                      | 0.300  |
| 2004             | 0.174                             | 1.011     | 1.178                        | 1.178                      | 0.205  |
| 2005             | 0.168                             | 1.011     | 1.192                        | 1.192                      | 0.201  |
| 2006             | 0.215                             | 1.014     | 1.208                        | 1.208                      | 0.260  |
| 2007             | 0.299                             | 1.016     | 1.228                        | 1.228                      | 0.367  |
| 2008             | 0.368                             | 1.019     | 1.251                        | 1.251                      | 0.460  |
| 2009             | 0.422                             | 1.021     | 1.278                        | 1.278                      | 0.539  |
| 2010             | 0.408                             | 1.025     | 1.310                        | 1.310                      | 0.534  |
| 2011             | 0.342                             | 1.027     | 1.345                        | 1.345                      | 0.460  |
| 2012             | 0.284                             | 1.039     | 1.397                        | 1.397                      | 0.397  |
| 2013             | 0.221                             | 1.053     | 1.472                        | 1.461                      | 0.323  |
| 2014             | 0.185                             | 1.064     | 1.565                        | 1.542                      | 0.285  |
| 2015             | 0.161                             | 1.094     | 1.712                        | 1.669                      | 0.268  |
| 2016             | 0.131                             | 1.170     | 2.002                        | 1.928                      | 0.253  |
| 2017             | 0.103                             | 1.327     | 2.656                        | 2.528                      | 0.261  |
| 2018             | 0.060                             | 1.837     | 4.880                        | 4.646                      | 0.279  |

- (a) Based on Exhibit 1. Paid MCCC costs are excluded from accident years 2011 and subsequent. To reflect the selected loss development methodology, reported loss ratios displayed prior to 1999 are on an incurred basis. Subsequent reported loss ratios are on a paid basis.
- (b) See Exhibits 2.6.1 and 2.6.2.

**Indemnity Benefit Level Factors**

| Accident<br>Year | (1)<br>Annual Benefit<br>Change Prior to<br>Frequency<br>Adjustments (a) | (2)<br>Frequency<br>Adjustments (a) | (3)<br>Annual Impact<br>on Indemnity Benefits<br>Due to Wage<br>Inflation (b) | (4a)<br>Annual<br>Cost<br>Impact on<br>Indemnity (c) | (5a)<br>Composite<br>Indemnity<br>Adjustment<br>Factor (d) |     |
|------------------|--|-------------------------------------|---|--|--|-----|
| 1986             | 0.0  | 0.0                                 | 1.6   | 1.6  | 1.581  |     |
| 1987             | 0.0  | 0.0                                 | 1.9   | 1.9  | 1.552  |     |
| 1988             | 0.0  | 0.0                                 | 1.5   | 1.5  | 1.529  |     |
| 1989             | 0.0  | 0.0                                 | 1.5   | 1.5  | 1.506  |     |
| 1990             | 2.3  | 19.9                                | 1.7   | 24.7   | 1.207  |     |
| 1991             | 4.9  | 14.8                                | 0.8   | 21.4   | 0.995  |     |
| 1992             | 1.8  | -8.3                                | 1.6   | -5.2   | 1.049  |     |
| 1993             | 0.2  | -18.1                               | 0.4   | -17.6  | 1.273  |     |
| 1994             | -5.1   | 0.2                                 | 0.6   | -4.3   | 1.331  |     |
| 1995             | 6.3  | 0.6                                 | 1.0   | 8.0  | 1.232  |     |
| 1996             | 5.3  | 0.4                                 | 1.2   | 7.0  | 1.152  |     |
| 1997             | 9.7  | 0.2                                 | 1.6   | 11.7   | 1.031  |     |
| 1998             | 6.5  | 0.0                                 | 1.8   | 8.4  | 0.951  |     |
| 1999             | 5.7  | 0.0                                 | 2.1   | 7.9  | 0.881  |     |
| 2000             | 3.9  | 0.0                                 | 3.1   | 7.1  | 0.823  |     |
| 2001             | -0.3   | 0.0                                 | 0.2   | -0.1   | 0.824  |     |
| 2002             | -0.7   | 0.0                                 | 0.4   | -0.3   | 0.844  | (e) |
| 2003             | 7.3  | 0.0                                 | 1.2   | 8.6  | 0.842  | (e) |
| 2004             | -6.0   | -13.7                               | 1.7   | -17.5  | 1.159  | (e) |
| 2005             | -31.6  | -15.3                               | 1.1   | -41.5  | 1.574  |     |
| 2006             | 5.6  | -5.7                                | 1.6   | 1.2  | 1.556  |     |
| 2007             | 1.6  | 0.0                                 | 1.6   | 3.2  | 1.507  |     |
| 2008             | 4.8  | 0.6                                 | 0.7   | 6.2  | 1.420  |     |
| 2009             | 0.4  | 1.4                                 | 0.2   | 2.0  | 1.392  |     |
| 2010             | 0.4  | 0.0                                 | 1.0   | 1.4  | 1.372  |     |
| 2011             | 0.0  | 0.0                                 | 1.6   | 1.6  | 1.351  |     |
| 2012             | 0.3  | 0.0                                 | 2.2   | 2.5  | 1.318  |     |
| 2013             | 2.6  | 0.2                                 | 0.4   | 3.2  | 1.277  |     |
| 2014             | 7.0  | 1.5                                 | 1.7   | 10.4   | 1.156  |     |
| 2015             | 0.3  | 0.0                                 | 2.3   | 2.6  | 1.127  |     |
| 2016             | 0.3  | 0.0                                 | 1.0   | 1.3  | 1.113  |     |
| 2017             | 0.5  | 0.0                                 | 2.2   | 2.7  | 1.084  |     |
| 2018             | 0.4  | 0.0                                 | 1.8   | 2.2  | 1.060  |     |
| 2019             | 0.4  | 0.0                                 | 1.8   | 2.2  |  |     |
| 2020             | 0.5  | 0.0                                 | 2.1   | 2.6  |  |     |
| 1/1/2021         | 0.2 (Annual 0.5)   | 0.0                                 | 0.9 (Annual 1.9)  | 1.1  |  |     |

- (a) Based on WCIRB evaluations of the average impact of legislative changes on the cost of indemnity benefits. These annual changes in benefits reflect the WCIRB's retrospective estimates of the cost impact of recent legislation as reflected in emerging post-reform costs. The annual cost impacts have been segregated between claim severity and claim frequency impacts.
- (b) These impacts are based on the weekly wages (See Exhibit 5.1) of injured workers and the legislatively scheduled benefits for that year.
- (c)  $\{ [\text{Column (1)} / 100 + 1.0] \times [\text{Column (2)} / 100 + 1.0] \times [\text{Column (3)} / 100 + 1.0] - 1.0 \} \times 100$ .
- (d) These factors represent the combined impact of the annual benefit changes on claim severity shown in Column (1), claim frequencies shown in Column (2) and wage inflation impact on benefits shown in Column (3), adjusted to the 2020 level.
- (e) On-level factors for accident years 2002, 2003 and 2004 adjust the portion of permanent disability claims that are estimated to not be subject to the January 1, 2005 PDRS (95% for accident year 2002, 75% for accident year 2003 and 40% for accident year 2004) to the January 1, 2005 PDRS level, and adjust for the corresponding utilization impacts on all 2002, 2003 and 2004 indemnity claims.

**Annual Medical Cost Level Change - Non-Legislative**

| Accident<br>Year | (1)<br>Proportion of<br>Medical<br>Subject to<br>Fee Schedule (a) | (2)<br>Proportion of<br>Medical Not<br>Subject to<br>Fee Schedule (a) | (3)<br>Impact of<br>Fee Schedule<br>Change on<br>Total Medical (b) | (4)<br>Change in<br>Medical<br>CPI (c) | (5)<br>Impact of<br>CPI Change<br>on Total<br>Medical (d) | (6)<br>Annual<br>Non-Legislative<br>Cost Impact on<br>Total Medical (e) |
|------------------|---|---|--|--|---|---|
| 1986             | 0.604   | 0.396   | 0.0%   | 9.1%                                   | 3.0%  | 3.0%  |
| 1987             | 0.610   | 0.390   | 0.9%   | 7.4%                                   | 2.9%  | 3.8%  |
| 1988             | 0.649   | 0.351   | 0.8%   | 7.7%                                   | 3.0%  | 3.8%  |
| 1989             | 0.647   | 0.353   | 0.0%   | 8.6%                                   | 3.0%  | 3.0%  |
| 1990             | 0.661   | 0.339   | 0.0%   | 10.4%                                  | 3.7%  | 3.7%  |
| 1991             | 0.631   | 0.369   | 0.0%   | 10.6%                                  | 3.6%  | 3.6%  |
| 1992             | 0.628   | 0.372   | 0.0%   | 8.1%                                   | 3.0%  | 3.0%  |
| 1993             | 0.565   | 0.435   | 0.0%   | 7.3%                                   | 2.7%  | 2.7%  |
| 1994             | 0.691   | 0.309   | -3.6%  | 4.3%                                   | 1.3% (i)  | -2.3%   |
| 1995             | 0.681   | 0.319   | 0.0%   | 3.0%                                   | 0.9%  | 0.9%  |
| 1996             | 0.663   | 0.337   | 0.0%   | 3.0%                                   | 1.0%  | 1.0%  |
| 1997             | 0.643   | 0.357   | 0.0%   | 2.2%                                   | 0.7%  | 0.7%  |
| 1998             | 0.658   | 0.342   | 0.0%   | 2.2%                                   | 0.8%  | 0.8%  |
| 1999             | 0.728   | 0.272   | 1.6%   | 3.3%                                   | 0.9% (ii)   | 2.5%  |
| 2000             | 0.715   | 0.285   | 0.5%   | 4.3%                                   | 1.2%  | 1.7%  |
| 2001             | 0.722   | 0.278   | 1.5%   | 4.8%                                   | 1.4%  | 2.9%  |
| 2002             | 0.635   | 0.365   | 0.6%   | 5.1%                                   | 1.4%  | 2.0%  |
| 2003             | 0.786   | 0.214   | 0.0%   | 4.8%                                   | 1.4% (iii)  | 1.4%  |
| 2004             | 0.952   | 0.048   | 0.0%   | 5.0%                                   | 0.0% (iv),(v)   | 0.0%  |
| 2005             | 0.936   | 0.064   | 0.0%   | 4.8%                                   | 0.0% (v)  | 0.0%  |
| 2006             | 0.926   | 0.074   | 0.0%   | 4.1%                                   | 0.3%  | 0.3%  |
| 2007             | 0.923   | 0.077   | 1.4%   | 5.3%                                   | 0.4%  | 1.8%  |
| 2008             | 0.896   | 0.104   | -0.1%  | 4.2%                                   | 0.3%  | 0.2%  |
| 2009             | 0.894   | 0.106   | 0.0%   | 3.6%                                   | 0.4%  | 0.4%  |
| 2010             | 0.895   | 0.105   | 0.0%   | 2.8%                                   | 0.3%  | 0.3%  |
| 2011             | 0.969   | 0.031   | 0.0%   | 3.2%                                   | 0.3%  | 0.3%  |
| 2012             | 0.969   | 0.031   | 0.0%   | 2.7%                                   | 0.1%  | 0.1%  |
| 2013             | 0.938   | 0.062   | 0.0%   | 2.6%                                   | 0.1%  | 0.1%  |
| 2014             | 0.928   | 0.072   | 0.0%   | 4.2%                                   | 0.3%  | 0.3%  |
| 2015             | 0.933   | 0.067   | 0.0%   | 3.1%                                   | 0.2%  | 0.2%  |
| 2016             | 0.918   | 0.082   | 0.0%   | 5.4%                                   | 0.4%  | 0.4%  |
| 2017             | 0.906   | 0.094   | 0.0%   | 2.2%                                   | 0.2%  | 0.2%  |
| 2018             | 0.906   | 0.094   | 0.0%   | 2.4%                                   | 0.2%  | 0.2%  |
| 2019             | 0.906   | 0.094   | 0.0%   | 2.8%                                   | 0.3%  | 0.3%  |
| 2020             | 0.906   | 0.094   | 0.0%   | 3.1%                                   | 0.3%  | 0.3%  |
| 1/1/2021         | 0.906   | 0.094   | 0.0% (Annual 0.0%)   | 1.3% (Annual 2.6%)                     | 0.1%  | 0.1%  |

(a) From a Special Carrier Study through 1990. Based on WCIRB's Aggregate Indemnity and Medical Costs Calls for years 1991 through 2012. Based on WCIRB medical transaction data from 2013 onwards. Accident years 2011 and subsequent do not include MCCC costs.

(b) Based on the WCIRB's evaluation of the cost impact of changes in the medical fee schedules.

(c) Based on a component of the Consumer Price Index. Projections furnished by the California Department of Finance.

(d) Adjusted CPI on workers' compensation medical costs that are not subject to fee schedules. The current year impact is the weighted average of 0% and Column (4), with Columns (1) and (2) from prior years as weights. (i) 1993's non-fee proportion is reduced by 13.8% due to the new medical-legal fee schedule enacted in 1994. (ii) 1998's non-fee proportion is reduced by 7.7% due to the Inpatient Hospital Fee Schedule (IHFS) effective 4/1/1999. (iii) 2002's non-fee proportion is reduced by 7.6% due to the new pharmaceutical fee schedule effective 1/1/2003. (iv) 2003's non-fee proportion is reduced by 17.2% due to the outpatient fee schedule effective 1/1/2004. (v) Given the anticipated impact of legislative reform, a 0% inflation rate has been assumed for 2004 and 2005.

(e) Column (6) = Column (3) + Column (5).

**Annual Medical Cost Level Change - Legislative**

| Accident<br>Year | (1)<br>Annual Legislative<br>Cost Impact on<br>Medical Severity(a) | (2)<br>Annual Legislative Cost Impact<br>on Medical Due to<br>Frequency Changes(b) | (3)<br>Annual Total<br>Legislative Cost<br>Impact on Medical(c) |
|------------------|--|--|---|
| 1986             | 0.0%   | 0.0%   | 0.0%  |
| 1987             | 0.0%   | 0.0%   | 0.0%  |
| 1988             | 0.0%   | 0.0%   | 0.0%  |
| 1989             | 0.0%   | 0.0%   | 0.0%  |
| 1990             | -0.7%  | 19.9%  | 19.1%   |
| 1991             | -1.6%  | 14.7%  | 12.9%   |
| 1992             | 0.5%   | -8.4%  | -7.9%   |
| 1993             | -0.7%  | -18.1%   | -18.7%  |
| 1994             | -2.6%  | 0.3%   | -2.3%   |
| 1995             | 0.0%   | 0.5%   | 0.5%  |
| 1996             | 0.0%   | 0.4%   | 0.4%  |
| 1997             | 0.0%   | 0.2%   | 0.2%  |
| 1998             | 12.6%  | 0.0%   | 12.6%   |
| 1999             | 12.6%  | 0.0%   | 12.6%   |
| 2000             | 7.0%   | 0.0%   | 7.0%  |
| 2001             | 6.6%   | 0.0%   | 6.6%  |
| 2002             | -5.6%  | 0.0%   | -5.6%   |
| 2003             | -6.0%  | 0.0%   | -6.0%   |
| 2004             | -24.4%   | -12.5%   | -33.9%  |
| 2005             | 0.0%   | -13.9%   | -13.9%  |
| 2006             | 0.1%   | -5.2%  | -5.1%   |
| 2007             | 0.1%   | 0.0%   | 0.1%  |
| 2008             | 0.2%   | 0.3%   | 0.5%  |
| 2009             | 0.0%   | 1.0%   | 1.0%  |
| 2010             | 0.0%   | 0.0%   | 0.0%  |
| 2011             | -3.0%  | 0.0%   | -3.0%   |
| 2012             | -5.4%  | 0.0%   | -5.4%   |
| 2013             | -9.2%  | 0.2%   | -9.0%   |
| 2014             | -6.3%  | 1.3%   | -5.1%   |
| 2015             | -2.5%  | 0.0%   | -2.5%   |
| 2016             | -0.5%  | 0.0%   | -0.5%   |
| 2017             | -0.4%  | 0.0%   | -0.4%   |
| 2018             | 0.3%   | 0.0%   | 0.3%  |
| 2019             | 0.0%   | 0.0%   | 0.0%  |
| 2020             | 0.0%   | 0.0%   | 0.0%  |
| 1/1/2021         | 0.0%   | 0.0%   | 0.0%  |

- (a) Reflects the WCIRB's most recent estimates of the cost impact of legislation including SB 863 provisions effective 1/1/2013 and 1/1/2014. Does not include the impact of the SB 1160 lien provisions on future medical costs, which are reflected in the medical loss development projections.
- (b) This reflects the annual percentage impact on medical costs due to changes in the frequency of indemnity claims as a result of benefit changes.
- (c)  $[\text{Column (1)} + 1.0] \times [\text{Column (2)} + 1.0] - 1.0$

**Total Medical Cost Level Factors**

| Accident<br>Year | (1)<br>Annual<br>Non-Legislative<br>Cost Impact on<br>Medical (a) | (2)<br>Annual<br>Legislative<br>Cost Impact on<br>Medical(b) | (3)<br>Total<br>Annual Cost<br>Impact on<br>Medical(c) | (4)<br>Composite<br>Medical<br>On-level<br>Factor(d) |
|------------------|---|--|--|--|
| 1986             | 3.0%  | 0.0%   | 3.0%   | 0.803  |
| 1987             | 3.8%  | 0.0%   | 3.8%   | 0.774  |
| 1988             | 3.8%  | 0.0%   | 3.8%   | 0.746  |
| 1989             | 3.0%  | 0.0%   | 3.0%   | 0.724  |
| 1990             | 3.7%  | 19.1%  | 23.5%  | 0.586  |
| 1991             | 3.6%  | 12.9%  | 16.9%  | 0.501  |
| 1992             | 3.0%  | -7.9%  | -5.2%  | 0.529  |
| 1993             | 2.7%  | -18.7%   | -16.5%   | 0.633  |
| 1994             | -2.3%   | -2.3%  | -4.6%  | 0.663  |
| 1995             | 0.9%  | 0.5%   | 1.4%   | 0.654  |
| 1996             | 1.0%  | 0.4%   | 1.4%   | 0.645  |
| 1997             | 0.7%  | 0.2%   | 0.9%   | 0.639  |
| 1998             | 0.8%  | 12.6%  | 13.5%  | 0.563  |
| 1999             | 2.5%  | 12.6%  | 15.4%  | 0.488  |
| 2000             | 1.7%  | 7.0%   | 8.8%   | 0.448  |
| 2001             | 2.9%  | 6.6%   | 9.7%   | 0.409  |
| 2002             | 2.0%  | -5.6%  | -3.7%  | 0.425  |
| 2003             | 1.4%  | -6.0%  | -4.7%  | 0.445  |
| 2004             | 0.0%  | -33.9%   | -33.9%   | 0.673  |
| 2005             | 0.0%  | -13.9%   | -13.9%   | 0.782  |
| 2006             | 0.3%  | -5.1%  | -4.8%  | 0.822  |
| 2007             | 1.8%  | 0.1%   | 1.9%   | 0.806  |
| 2008             | 0.2%  | 0.5%   | 0.7%   | 0.801  |
| 2009             | 0.4%  | 1.0%   | 1.4%   | 0.790  |
| 2010             | 0.3%  | 0.0%   | 0.3%   | 0.787  |
| 2011             | 0.3%  | -3.0%  | -2.7%  | 0.809  |
| 2012             | 0.1%  | -5.4%  | -5.3%  | 0.855  |
| 2013             | 0.1%  | -9.0%  | -8.9%  | 0.938  |
| 2014             | 0.3%  | -5.1%  | -4.8%  | 0.986  |
| 2015             | 0.2%  | -2.5%  | -2.3%  | 1.009  |
| 2016             | 0.4%  | -0.5%  | -0.1%  | 1.010  |
| 2017             | 0.2%  | -0.4%  | -0.2%  | 1.012  |
| 2018             | 0.2%  | 0.3%   | 0.5%   | 1.007  |
| 2019             | 0.3%  | 0.0%   | 0.3%   |  |
| 2020             | 0.3%  | 0.0%   | 0.3%   |  |
| 1/1/2021         | 0.1%  | 0.0%   | 0.1%   |  |

- (a) See Exhibit 4.2, Column (6).
- (b) See Exhibit 4.3, Column (3).
- (c)  $\text{Column (3)} = [1.0 + \text{Column (1)}] \times [1.0 + \text{Column (2)}] - 1.0$ .
- (d) These factors adjust the annual impact shown in Column (3) to the 1/1/2021 level.

### Annual Wage Level Changes

| <u>Year</u> | <u>Annual Wage<br/>Level Change(a)</u> | <u>Factor to a<br/>1/1/2021 Wage Level</u> |
|-------------|--|--|
| 1987        | 5.6                                    | 3.168                                      |
| 1988        | 4.4                                    | 3.035                                      |
| 1989        | 4.3                                    | 2.909                                      |
| 1990        | 5.0                                    | 2.771                                      |
| 1991        | 2.3                                    | 2.709                                      |
| 1992        | 4.7                                    | 2.587                                      |
| 1993        | 1.2                                    | 2.556                                      |
| 1994        | 1.8                                    | 2.511                                      |
| 1995        | 2.9                                    | 2.440                                      |
| 1996        | 3.4                                    | 2.360                                      |
| 1997        | 4.7                                    | 2.254                                      |
| 1998        | 5.2                                    | 2.143                                      |
| 1999        | 6.2                                    | 2.018                                      |
| 2000        | 9.0                                    | 1.851                                      |
| 2001        | 0.6                                    | 1.840                                      |
| 2002        | 1.1                                    | 1.820                                      |
| 2003        | 3.6                                    | 1.757                                      |
| 2004        | 5.0                                    | 1.673                                      |
| 2005        | 3.2                                    | 1.621                                      |
| 2006        | 4.6                                    | 1.550                                      |
| 2007        | 4.5                                    | 1.483                                      |
| 2008        | 2.1                                    | 1.453                                      |
| 2009        | 0.5                                    | 1.445                                      |
| 2010        | 3.0                                    | 1.403                                      |
| 2011        | 3.0                                    | 1.362                                      |
| 2012        | 4.2                                    | 1.308                                      |
| 2013        | 0.7                                    | 1.298                                      |
| 2014        | 3.3                                    | 1.257                                      |
| 2015        | 4.4                                    | 1.204                                      |
| 2016        | 1.9                                    | 1.182                                      |
| 2017        | 4.3                                    | 1.133                                      |
| 2018        | 3.5                                    | 1.095                                      |
| Projected:  |  |  |
| 2019        | 3.4                                    |  |
| 2020        | 4.0                                    |  |
| 1/1/2021    | 1.8                                    | (Annual = 3.6)                             |

(a) Historical wage changes through 2017 are based on Bureau of Labor Statistics data. Forecasts for 2018 to 2021 are based on the average of wage level projections made by the UCLA Anderson School of Business as of March 2019 and those made by the California Department of Finance as of April 2019.

Premium Adjustment Factors

|                  | (1)                                       | (2a)   | (2b)   | (2c)   | (3)                                  | (4)                                   | (5)   | (6)  | (7)  |
|------------------|---|--|--|--|--------------------------------------|---------------------------------------|---|--|--|
|                  |   | Ratio of<br>Industry Average<br>Charged Rates<br>to Advisory<br>Pure Premium | Factor to<br>Industry<br>Average Filed<br>Pure Premium<br>Rate Level as of | Factor to Adjust<br>Insurer Premium<br>to an Industry<br>Average Filed<br>Pure Premium<br>Rate Level as of | Adjustment<br>to Remove<br>Surcharge | Average<br>Experience<br>Modification | Off-Balance<br>Correction in<br>Advisory<br>January 1, 2019<br>Pure Premium | Factor to Adjust<br>for Impact<br>of Premium<br>Resulting from<br>Audits | Composite<br>Premium<br>Adjustment<br>Factor |
| Calendar<br>Year | Factor to a<br>1/1/2021<br>Wage Level (a) | Rates (b)  | January 1, 2019 (c)  | January 1, 2019 (d)  | Premium (e)                          | Modification (f)                      | Rates   | Audits (g)   | Factor (h)                                   |
| 1986             | 3.345                                     | ---  | ---  | 0.751  | 0.991                                | 0.983                                 | 1.017   | ---  | 2.490  |
| 1987             | 3.168                                     | ---  | ---  | 0.660  | 0.992                                | 0.983                                 | 1.017   | ---  | 2.075  |
| 1988             | 3.035                                     | ---  | ---  | 0.590  | 0.993                                | 0.963                                 | 1.017   | ---  | 1.816  |
| 1989             | 2.909                                     | ---  | ---  | 0.581  | 0.993                                | 0.945                                 | 1.017   | ---  | 1.747  |
| 1990             | 2.771                                     | ---  | ---  | 0.567  | 0.991                                | 0.942                                 | 1.017   | ---  | 1.624  |
| 1991             | 2.709                                     | ---  | ---  | 0.525  | 0.987                                | 0.939                                 | 1.017   | ---  | 1.469  |
| 1992             | 2.587                                     | ---  | ---  | 0.504  | 0.982                                | 0.940                                 | 1.017   | ---  | 1.338  |
| 1993             | 2.556                                     | ---  | ---  | 0.497  | 0.981                                | 0.949                                 | 1.017   | ---  | 1.291  |
| 1994             | 2.511                                     | ---  | ---  | 0.569  | 0.986                                | 0.948                                 | 1.017   | ---  | 1.462  |
| 1995             | 2.440                                     | ---  | ---  | 0.770  | 0.995                                | 0.958                                 | 1.017   | ---  | 1.920  |
| 1996             | 2.360                                     | 1.023  | 0.819  | 0.801  | 1.000                                | 0.935                                 | 1.017   | ---  | 1.987  |
| 1997             | 2.254                                     | 0.989  | 0.817  | 0.826  | 1.000                                | 0.949                                 | 1.017   | ---  | 1.929  |
| 1998             | 2.143                                     | 0.965  | 0.851  | 0.882  | 1.000                                | 0.959                                 | 1.017   | ---  | 1.937  |
| 1999             | 2.018                                     | 0.972  | 0.860  | 0.885  | 1.000                                | 0.954                                 | 1.017   | ---  | 1.840  |
| 2000             | 1.851                                     | 1.005  | 0.780  | 0.776  | 1.000                                | 0.970                                 | 1.017   | ---  | 1.456  |
| 2001             | 1.840                                     | 1.029  | 0.687  | 0.668  | 1.000                                | 0.969                                 | 1.017   | ---  | 1.247  |
| 2002             | 1.820                                     | 1.157  | 0.615  | 0.532  | 1.000                                | 0.991                                 | 1.017   | ---  | 0.960  |
| 2003             | 1.757                                     | 1.267  | 0.503  | 0.397  | 1.000                                | 1.005                                 | 1.017   | ---  | 0.682  |
| 2004             | 1.673                                     | 1.397  | 0.512  | 0.366  | 1.000                                | 0.981                                 | 1.017   | ---  | 0.615  |
| 2005             | 1.621                                     | 1.470  | 0.616  | 0.419  | 1.000                                | 0.982                                 | 1.017   | ---  | 0.680  |
| 2006             | 1.550                                     | 1.447  | 0.793  | 0.548  | 1.000                                | 0.956                                 | 1.017   | ---  | 0.874  |
| 2007             | 1.483                                     | 1.493  | 1.081  | 0.724  | 1.000                                | 0.931                                 | 1.017   | 0.985  | 1.117  |
| 2008             | 1.453                                     | 1.426  | 1.286  | 0.902  | 1.000                                | 0.946                                 | 1.017   | 0.991  | 1.349  |
| 2009             | 1.445                                     | 1.366  | 1.268  | 0.928  | 1.000                                | 0.937                                 | 1.017   | 1.034  | 1.456  |
| 2010             | 1.403                                     | 1.384  | 1.242  | 0.897  | 1.000                                | 0.941                                 | 1.017   | 1.005  | 1.323  |
| 2011             | 1.362                                     | 1.401  | 1.241  | 0.886  | 1.000                                | 0.982                                 | 1.017   | ---  | 1.208  |
| 2012             | 1.308                                     | 1.223  | 1.023  | 0.836  | 1.000                                | 1.000                                 | 1.017   | ---  | 1.075  |
| 2013             | 1.298                                     | 1.138  | 0.824  | 0.724  | 1.000                                | 0.983                                 | 1.017   | ---  | 0.940  |
| 2014             | 1.257                                     | 1.126  | 0.759  | 0.674  | 1.000                                | 0.961                                 | 1.017   | ---  | 0.867  |
| 2015             | 1.204                                     | 1.109  | 0.738  | 0.665  | 1.000                                | 0.951                                 | 1.017   | ---  | 0.828  |
| 2016             | 1.182                                     | 1.148  | 0.794  | 0.692  | 1.000                                | 0.949                                 | 1.017   | ---  | 0.847  |
| 2017             | 1.133                                     | 1.156  | 0.877  | 0.759  | 1.000                                | 0.956                                 | 1.017   | ---  | 0.884  |
| 2018             | 1.095                                     | 1.195  | 0.993  | 0.831  | 1.000                                | 0.958                                 | 1.017   | ---  | 0.934  |

- (a) See Exhibit 5.1.
- (b) Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.
- (c) Reflects (1) advisory pure premium rate level changes to bring premium to the advisory January 1, 2019 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory January 1, 2019 pure premium rate (\$1.63) to the industry average filed pure premium rate as of January 1, 2019 (\$2.02).
- (d)  $(2b) \div (2a)$ . This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of January 1, 2019.
- (e) Based on unit statistical data.
- (f) Based on average promulgated experience modifications. Calendar years 1996 through 2000 include adjustments for the impacts of AB 1913 and SB 1217 (1998).
- (g) Based on a comparison of premium reported on a calendar year basis to premium reported on an estimated ultimate policy year basis over the course of two accident years. The factor is applied only for calendar years 2007 to 2010, during which reported premiums were impacted by recessionary economic forces.
- (h)  $(1) \times (2c) \times (3) \times (6) \div [(4) \times (5)]$  for calendar years 2007 to 2010.  $(1) \times (2c) \times (3) \div [(4) \times (5)]$  for all other calendar years.



2018 Accident Year Indemnity Claim Frequency Model  
As of PY 2016 Preliminary 1st Set & December 2018 UCLA

| AY    | Annual %                         | Annual Log Differences   |            |          |                                    |                            | Economic<br>Variables<br>(1st Prin. Comp.) | CalOSHA<br>Dummy<br>Variable |
|-------|----------------------------------|--|------------|----------|------------------------------------|----------------------------|--|------------------------------|
|       | Changes Intra-<br>Class Ind Freq | Intra-Class Indemnity Frequency<br>per \$M Exposure at FY 2016 Level |            |          | AY+1<br>Indemnity<br>Benefit Level | Cumulative<br>Injury Index |  |                              |
|       |                                  | Total  | Cumulative | Non-cum. |                                    |                            |  |                              |
| 1962  | ----                             | ----   | ----       | ----     | ----                               | ----                       | ----                                       |                              |
| 1963  | 2.0%                             | 0.020  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1964  | 0.3%                             | 0.003  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1965  | -0.3%                            | -0.003   | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1966  | 1.7%                             | 0.017  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1967  | 1.8%                             | 0.017  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1968  | 1.4%                             | 0.014  | ----       | ----     | 0.049                              | ----                       | 0.000                                      |                              |
| 1969  | 2.7%                             | 0.026  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1970  | 1.8%                             | 0.018  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1971  | 1.5%                             | 0.015  | ----       | ----     | 0.162                              | ----                       | 0.000                                      |                              |
| 1972  | -4.3%                            | -0.044   | ----       | ----     | 0.040                              | ----                       | 0.000                                      |                              |
| 1973  | 7.0%                             | 0.067  | ----       | ----     | 0.049                              | ----                       | 0.000                                      |                              |
| 1974  | 19.2%                            | 0.176  | ----       | ----     | 0.058                              | ----                       | 0.000                                      |                              |
| 1975  | 12.5%                            | 0.118  | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1976  | 0.8%                             | 0.008  | ----       | ----     | 0.063                              | ----                       | 0.000                                      |                              |
| 1977  | 4.3%                             | 0.042  | ----       | ----     | 0.001                              | ----                       | 0.000                                      |                              |
| 1978  | -8.7%                            | -0.091   | ----       | ----     | 0.000                              | ----                       | 0.000                                      |                              |
| 1979  | 0.5%                             | 0.005  | -0.053     | 0.007    | 0.000                              | -0.060                     | 0.134                                      |                              |
| 1980  | -6.5%                            | -0.068   | -0.132     | -0.066   | 0.033                              | -0.066                     | -0.080                                     |                              |
| 1981  | -3.5%                            | -0.036   | -0.028     | -0.036   | 0.000                              | 0.008                      | -0.079                                     |                              |
| 1982  | -1.6%                            | -0.016   | 0.153      | -0.022   | 0.352                              | 0.175                      | -0.294                                     |                              |
| 1983  | 6.2%                             | 0.060  | 0.214      | 0.054    | 0.081                              | 0.160                      | 0.029                                      |                              |
| 1984  | 9.5%                             | 0.091  | 0.235      | 0.084    | 0.000                              | 0.151                      | 0.222                                      |                              |
| 1985  | 2.0%                             | 0.020  | 0.138      | 0.014    | 0.000                              | 0.124                      | 0.081                                      |                              |
| 1986  | -2.4%                            | -0.024   | 0.039      | -0.028   | 0.000                              | 0.067                      | 0.078                                      |                              |
| 1987  | 1.5%                             | 0.015  | 0.053      | 0.013    | 0.000                              | 0.041                      | 0.151                                      |                              |
| 1988  | 0.7%                             | 0.007  | 0.104      | 0.000    | 0.000                              | 0.104                      | 0.088                                      |                              |
| 1989  | 2.5%                             | 0.024  | 0.212      | 0.009    | 0.046                              | 0.203                      | 0.045                                      |                              |
| 1990  | 9.0%                             | 0.087  | 0.337      | 0.061    | 0.071                              | 0.276                      | -0.121                                     |                              |
| 1991  | 0.3%                             | 0.003  | 0.166      | -0.018   | 0.023                              | 0.184                      | -0.293                                     |                              |
| 1992  | -11.1%                           | -0.118   | -0.272     | -0.098   | 0.013                              | -0.174                     | -0.186                                     |                              |
| 1993  | -14.9%                           | -0.162   | -0.240     | -0.153   | -0.057                             | -0.088                     | -0.022                                     |                              |
| 1994  | -12.8%                           | -0.136   | -0.462     | -0.107   | 0.061                              | -0.355                     | 0.106                                      |                              |
| 1995  | -4.6%                            | -0.048   | -0.016     | -0.050   | 0.053                              | 0.034                      | 0.092                                      |                              |
| 1996  | -6.8%                            | -0.070   | -0.136     | -0.065   | 0.096                              | -0.071                     | 0.075                                      |                              |
| 1997  | -3.3%                            | -0.033   | -0.023     | -0.034   | 0.066                              | 0.011                      | 0.138                                      |                              |
| 1998  | -3.8%                            | -0.038   | -0.040     | -0.038   | 0.058                              | -0.002                     | 0.079                                      |                              |
| 1999  | 1.5%                             | 0.014  | 0.100      | 0.008    | 0.040                              | 0.092                      | 0.128                                      |                              |
| 2000  | 4.0%                             | 0.039  | 0.071      | 0.037    | -0.003                             | 0.034                      | 0.066                                      |                              |
| 2001  | -6.9%                            | -0.072   | -0.018     | -0.076   | -0.007                             | 0.059                      | -0.101                                     |                              |
| 2002  | -2.3%                            | -0.023   | 0.007      | -0.026   | 0.060                              | 0.033                      | -0.202                                     |                              |
| 2003  | -2.9%                            | -0.029   | -0.005     | -0.031   | -0.065                             | 0.026                      | -0.023                                     |                              |
| 2004  | -16.6%                           | -0.182   | -0.209     | -0.180   | -0.398                             | -0.030                     | 0.093                                      |                              |
| 2005  | -13.6%                           | -0.146   | -0.298     | -0.133   | 0.051                              | -0.165                     | 0.141                                      |                              |
| 2006  | -5.7%                            | -0.059   | -0.050     | -0.059   | 0.016                              | 0.009                      | 0.095                                      |                              |
| 2007  | -1.6%                            | -0.017   | 0.021      | -0.019   | 0.049                              | 0.040                      | -0.084                                     |                              |
| 2008  | -2.7%                            | -0.027   | 0.038      | -0.033   | 0.006                              | 0.071                      | -0.308                                     |                              |
| 2009  | -0.2%                            | -0.002   | 0.168      | -0.018   | 0.066                              | 0.186                      | -0.427                                     |                              |
| 2010  | 8.9%                             | 0.085  | 0.139      | 0.079    | 0.012                              | 0.060                      | -0.092                                     |                              |
| 2011  | 1.3%                             | 0.013  | 0.032      | 0.010    | 0.003                              | 0.022                      | 0.043                                      |                              |
| 2012  | 4.6%                             | 0.045  | 0.127      | 0.035    | 0.025                              | 0.091                      | 0.123                                      |                              |
| 2013  | 0.4%                             | 0.004  | 0.134      | -0.014   | 0.071                              | 0.147                      | 0.151                                      |                              |
| 2014  | 0.2%                             | 0.002  | 0.066      | -0.008   | 0.003                              | 0.074                      | 0.178                                      |                              |
| 2015  | -0.9%                            | -0.009   | 0.048      | -0.018   | 0.002                              | 0.066                      | 0.194                                      |                              |
| 2016  | -3.5%                            | -0.036   | 0.031      | -0.047   | 0.004                              | 0.079                      | 0.124                                      |                              |
| 2017* | -3.5%                            | -0.036   | 0.083      | -0.059   | 0.004                              | 0.142                      | 0.140                                      |                              |
| 2018  | -0.9%                            | -0.009   | -0.009     | -0.009   | 0.003                              | 0.000                      | 0.129                                      |                              |
| 2019  | -2.4%                            | -0.024   | -0.024     | -0.024   | 0.004                              | 0.000                      | 0.000                                      |                              |
| 2020  | -1.9%                            | -0.019   | -0.019     | -0.019   | 0.004                              | 0.000                      | 0.000                                      |                              |
| 2021  | -2.3%                            | -0.023   | -0.023     | -0.023   | 0.004                              | 0.000                      | 0.000                                      |                              |

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

|                     |        |
|---------------------|--------|
| Constant            | -0.020 |
| Std Err of Y Est    | 0.041  |
| R Squared           | 0.544  |
| No. of Observations | 39     |
| Degrees of Freedom  | 34     |

|                  |       |       |       |        |
|------------------|-------|-------|-------|--------|
| X Coefficient(s) | 0.177 | 0.270 | 0.082 | -0.133 |
| Std Err of Coef. | 0.075 | 0.064 | 0.045 | 0.079  |

Notes:

Indemnity Benefit Level variable is leading. The benefit level change for AY 2004 is related to the AY 2003 change in non-cumulative frequency.

The Indemnity Benefit Level change for Ogilvie & Almaraz / Guzman in 2009-2010 is not leading.

The Indemnity Benefit Level variable excludes indemnity benefit utilization, and changes in the death and permanent total benefits.

The Indemnity Benefit Level variable has been revised due to on-leveling reassessments. See Actuarial Committee item AC09-03-03.

For 1993 on, cumulative claims include both cumulative trauma and occupational disease claims. See March 19, 2014 Actuarial Committee Agenda Item III.

Economic variables are historical through 2017; December 2018 UCLA Anderson Forecasts for 2018 on.

Regression is over AY 1979 through AY 2017. AY 2018 through AY 2021 are projections.

The constant term, -0.020, consists of measured offsets that recognize annual changes in real benefit levels relative to nominal benefit levels and long-term economic growth. Without these offsets, the indemnity benefit level and economic variables would project frequency to increase without bound.

\*AY 2017 is preliminary and change is based on a comparison of 2017 accidents on 2016 policies to 2016 accidents on 2015 policies.

**Projection of Indemnity Severity Trends by Accident Year  
Based on Experience as of March 31, 2019**

| Accident<br>Year | (1)<br>Estimated<br>Ultimate<br>Severity | (2)<br>Annual<br>% Change | (3)<br>Indemnity<br>Adjustment<br>Factor (a) | (4)<br>Ultimate<br>On-level<br>Severity<br>(1) x (3) | (5)<br>Annual<br>% Change |
|------------------|--|---------------------------|--|--|---------------------------|
| 1990             | 9,975                                    | ---                       | 1.931  | 19,265   | ---                       |
| 1991             | 10,904                                   | 9.3%                      | 1.826  | 19,915   | 3.4%                      |
| 1992             | 11,014                                   | 1.0%                      | 1.766  | 19,449   | -2.3%                     |
| 1993             | 11,998                                   | 8.9%                      | 1.755  | 21,060   | 8.3%                      |
| 1994             | 12,964                                   | 8.1%                      | 1.839  | 23,837   | 13.2%                     |
| 1995             | 14,535                                   | 12.1%                     | 1.713  | 24,892   | 4.4%                      |
| 1996             | 16,284                                   | 12.0%                     | 1.607  | 26,170   | 5.1%                      |
| 1997             | 19,335                                   | 18.7%                     | 1.442  | 27,880   | 6.5%                      |
| 1998             | 21,198                                   | 9.6%                      | 1.330  | 28,193   | 1.1%                      |
| 1999             | 23,231                                   | 9.6%                      | 1.232  | 28,629   | 1.5%                      |
| 2000             | 24,660                                   | 6.2%                      | 1.150  | 28,370   | -0.9%                     |
| 2001             | 27,158                                   | 10.1%                     | 1.152  | 31,275   | 10.2%                     |
| 2002             | 26,252                                   | -3.3%                     | 1.155  | 30,324   | -3.0%                     |
| 2003             | 25,887                                   | -1.4%                     | 1.063  | 27,527   | -9.2%                     |
| 2004             | 21,118                                   | -18.4%                    | 1.112  | 23,484   | -14.7%                    |
| 2005             | 19,082                                   | -9.6%                     | 1.609  | 30,701   | 30.7%                     |
| 2006             | 20,789                                   | 8.9%                      | 1.500  | 31,174   | 1.5%                      |
| 2007             | 22,615                                   | 8.8%                      | 1.453  | 32,853   | 5.4%                      |
| 2008             | 24,720                                   | 9.3%                      | 1.377  | 34,028   | 3.6%                      |
| 2009             | 25,911                                   | 4.8%                      | 1.368  | 35,455   | 4.2%                      |
| 2010             | 25,453                                   | -1.8%                     | 1.349  | 34,346   | -3.1%                     |
| 2011             | 25,168                                   | -1.1%                     | 1.328  | 33,426   | -2.7%                     |
| 2012             | 24,769                                   | -1.6%                     | 1.296  | 32,092   | -4.0%                     |
| 2013             | 24,430                                   | -1.4%                     | 1.258  | 30,728   | -4.2%                     |
| 2014             | 25,220                                   | 3.2%                      | 1.156  | 29,155   | -5.1%                     |
| 2015             | 25,492                                   | 1.1%                      | 1.127  | 28,723   | -1.5%                     |
| 2016             | 24,969                                   | -2.1%                     | 1.113  | 27,780   | -3.3%                     |
| 2017             | 25,114                                   | 0.6%                      | 1.084  | 27,212   | -2.0%                     |
| 2018             | 26,544                                   | 5.7%                      | 1.060  | 28,130   | 3.4%                      |

(6) Estimated Annual Exponential Trend Based on 1990 to 2018: 1.3%

(7) Estimated Annual Exponential Trend Based on 2005 to 2018: -1.5%

(8) Estimated Annual Exponential Trend Based on 2014 to 2018: -1.2%

Selected Indemnity Severity Trend: -0.5%

(a) These adjustment factors are based on Exhibit 4.1, excluding the impact of frequency.

Source: WCIRB experience calls.

**Projection of Medical Severity Trends by Accident Year  
Based on Experience as of March 31, 2019**

| Accident<br>Year | (1)<br>Estimated<br>Ultimate<br>Severity (a) | (2)<br>Annual<br>% Change | (3)<br>Medical<br>Adjustment<br>Factor (b) | (4)<br>Ultimate<br>On-level<br>Severity<br>(1) x (3) | (5)<br>Annual<br>% Change |
|------------------|--|---------------------------|--|--|---------------------------|
| 1990             | 8,780  | ---                       | 0.915                                      | 8,033  | ---                       |
| 1991             | 9,427  | 7.4%                      | 0.897                                      | 8,461  | 5.3%                      |
| 1992             | 9,526  | 1.1%                      | 0.867                                      | 8,259  | -2.4%                     |
| 1993             | 10,576                                       | 11.0%                     | 0.850                                      | 8,991  | 8.9%                      |
| 1994             | 11,652                                       | 10.2%                     | 0.893                                      | 10,410   | 15.8%                     |
| 1995             | 13,336                                       | 14.5%                     | 0.885                                      | 11,809   | 13.4%                     |
| 1996             | 14,286                                       | 7.1%                      | 0.877                                      | 12,524   | 6.1%                      |
| 1997             | 17,005                                       | 19.0%                     | 0.871                                      | 14,804   | 18.2%                     |
| 1998             | 20,816                                       | 22.4%                     | 0.767                                      | 15,966   | 7.8%                      |
| 1999             | 23,861                                       | 14.6%                     | 0.665                                      | 15,857   | -0.7%                     |
| 2000             | 26,697                                       | 11.9%                     | 0.611                                      | 16,304   | 2.8%                      |
| 2001             | 31,745                                       | 18.9%                     | 0.557                                      | 17,674   | 8.4%                      |
| 2002             | 32,011                                       | 0.8%                      | 0.578                                      | 18,509   | 4.7%                      |
| 2003             | 30,563                                       | -4.5%                     | 0.607                                      | 18,541   | 0.2%                      |
| 2004             | 28,214                                       | -7.7%                     | 0.802                                      | 22,639   | 22.1%                     |
| 2005             | 29,015                                       | 2.8%                      | 0.802                                      | 23,282   | 2.8%                      |
| 2006             | 31,639                                       | 9.0%                      | 0.799                                      | 25,287   | 8.6%                      |
| 2007             | 35,300                                       | 11.6%                     | 0.784                                      | 27,687   | 9.5%                      |
| 2008             | 38,122                                       | 8.0%                      | 0.781                                      | 29,780   | 7.6%                      |
| 2009             | 40,105                                       | 5.2%                      | 0.778                                      | 31,204   | 4.8%                      |
| 2010             | 40,303                                       | 0.5%                      | 0.776                                      | 31,265   | 0.2%                      |
| 2011             | 36,577 (c)                                   | ---                       | 0.797                                      | 29,165 (c)   | ---                       |
| 2012             | 34,381                                       | -6.0%                     | 0.842                                      | 28,949   | -0.7%                     |
| 2013             | 31,852                                       | -7.4%                     | 0.926                                      | 29,508   | 1.9%                      |
| 2014             | 30,407                                       | -4.5%                     | 0.986                                      | 29,973   | 1.6%                      |
| 2015             | 29,450                                       | -3.1%                     | 1.009                                      | 29,715   | -0.9%                     |
| 2016             | 28,413                                       | -3.5%                     | 1.010                                      | 28,697   | -3.4%                     |
| 2017             | 28,585                                       | 0.6%                      | 1.012                                      | 28,930   | 0.8%                      |
| 2018             | 29,587                                       | 3.5%                      | 1.007                                      | 29,794   | 3.0%                      |

Selected Medical Severity Trend: 2.5%

- (a) Estimated ultimate severities for all accident years are derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts. The estimated ultimate medical severities were derived from the projected ultimate loss ratios shown in Exhibit 3.2, column (5).
- (b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 1160 provisions applicable to outstanding medical losses.
- (c) Severities for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Severities for accident years 2010 and prior do reflect MCCP costs.

Source: WCIRB experience calls.

**Projection of Medical Severity Trends by Accident Year  
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)  
Based on Experience as of March 31, 2019**

| (1)<br>Accident<br>Year | MCCP Included                         |                    |                                      |                    | MCCP Removed Based on<br>WCIRB Aggregate<br>Calendar Year Data Calls (b) |                    |                                      |                    |
|-------------------------|---------------------------------------|--------------------|--------------------------------------|--------------------|--|--------------------|--------------------------------------|--------------------|
|                         | (2)                                   | (3)                | (4)                                  | (5)                | (6)  | (7)                | (8)                                  | (9)                |
|                         | Estimated<br>Ultimate<br>Severity (a) | Annual<br>% Change | Ultimate<br>On-Level<br>Severity (c) | Annual<br>% Change | Estimated<br>Ultimate<br>Severity (a)                                    | Annual<br>% Change | Ultimate<br>On-Level<br>Severity (c) | Annual<br>% Change |
| 2005                    | 29,015                                | ---                | 23,282                               | ---                | 27,499   | ---                | 22,066                               | ---                |
| 2006                    | 31,639                                | 9.0%               | 25,287                               | 8.6%               | 29,671   | 7.9%               | 23,714                               | 7.5%               |
| 2007                    | 35,300                                | 11.6%              | 27,687                               | 9.5%               | 32,963   | 11.1%              | 25,853                               | 9.0%               |
| 2008                    | 38,122                                | 8.0%               | 29,780                               | 7.6%               | 34,799   | 5.6%               | 27,185                               | 5.1%               |
| 2009                    | 40,105                                | 5.2%               | 31,204                               | 4.8%               | 36,769   | 5.7%               | 28,609                               | 5.2%               |
| 2010                    | 40,303                                | 0.5%               | 31,265                               | 0.2%               | 36,914   | 0.4%               | 28,636                               | 0.1%               |
| 2011                    | 40,070                                | -0.6%              | 31,949                               | 2.2%               | 36,577   | -0.9%              | 29,165                               | 1.8%               |
| 2012                    | 37,620                                | -6.1%              | 31,676                               | -0.9%              | 34,381   | -6.0%              | 28,949                               | -0.7%              |
| 2013                    | 34,917                                | -7.2%              | 32,348                               | 2.1%               | 31,852   | -7.4%              | 29,508                               | 1.9%               |
| 2014                    | 33,282                                | -4.7%              | 32,807                               | 1.4%               | 30,407   | -4.5%              | 29,973                               | 1.6%               |
| 2015                    | 32,107                                | -3.5%              | 32,395                               | -1.3%              | 29,450   | -3.1%              | 29,715                               | -0.9%              |
| 2016                    | 30,915                                | -3.7%              | 31,225                               | -3.6%              | 28,413   | -3.5%              | 28,697                               | -3.4%              |
| 2017                    | 31,196                                | 0.9%               | 31,572                               | 1.1%               | 28,585   | 0.6%               | 28,930                               | 0.8%               |
| 2018                    | 32,479                                | 4.1%               | 32,707                               | 3.6%               | 29,587   | 3.5%               | 29,794                               | 3.0%               |

**Estimated Annual Exponential Trend**

Trend Based on 1990 to 2018:

Trend Based on 2005 to 2018:

Trend Based on 2014 to 2018:

5.7%  
2.0%  
-0.3%

**Selected Medical Severity Trend:**

2.5%

(a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.

(b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.

(c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 6.3.

Source: WCIRB experience calls.

**Projected On-Level Accident Year  
Indemnity Loss to Industry Average Filed Pure Premium Ratios  
Based on Experience as of March 31, 2019**

| Accident<br>Year | (1)<br>Developed Indemnity<br>Loss Ratio(a) | (2)<br>Composite Indemnity<br>Adjustment Factor(b) | (3)<br>Composite Premium<br>Adjustment Factor(c) | (4)<br>On-Level Indemnity to<br>Industry Average Filed<br>Pure Premium Ratio<br>(1)×(2)÷(3) |
|------------------|---|--|--|---|
| 1986             | 0.398                                       | 1.581  | 2.490  | 0.253   |
| 1987             | 0.347                                       | 1.552  | 2.075  | 0.260   |
| 1988             | 0.332                                       | 1.529  | 1.816  | 0.279   |
| 1989             | 0.345                                       | 1.506  | 1.747  | 0.297   |
| 1990             | 0.400                                       | 1.207  | 1.624  | 0.297   |
| 1991             | 0.427                                       | 0.995  | 1.469  | 0.289   |
| 1992             | 0.352                                       | 1.049  | 1.338  | 0.276   |
| 1993             | 0.289                                       | 1.273  | 1.291  | 0.285   |
| 1994             | 0.330                                       | 1.331  | 1.462  | 0.300   |
| 1995             | 0.476                                       | 1.232  | 1.920  | 0.305   |
| 1996             | 0.533                                       | 1.152  | 1.987  | 0.309   |
| 1997             | 0.604                                       | 1.031  | 1.929  | 0.323   |
| 1998             | 0.656                                       | 0.951  | 1.937  | 0.322   |
| 1999             | 0.690                                       | 0.881  | 1.840  | 0.331   |
| 2000             | 0.597                                       | 0.823  | 1.456  | 0.337   |
| 2001             | 0.495                                       | 0.824  | 1.247  | 0.327   |
| 2002             | 0.369                                       | 0.844  | 0.960  | 0.324   |
| 2003             | 0.243                                       | 0.842  | 0.682  | 0.300   |
| 2004             | 0.145                                       | 1.159  | 0.615  | 0.274   |
| 2005             | 0.124                                       | 1.574  | 0.680  | 0.288   |
| 2006             | 0.161                                       | 1.556  | 0.874  | 0.287   |
| 2007             | 0.222                                       | 1.507  | 1.117  | 0.300   |
| 2008             | 0.283                                       | 1.420  | 1.349  | 0.297   |
| 2009             | 0.331                                       | 1.392  | 1.456  | 0.317   |
| 2010             | 0.321                                       | 1.372  | 1.323  | 0.333   |
| 2011             | 0.300                                       | 1.351  | 1.208  | 0.336   |
| 2012             | 0.271                                       | 1.318  | 1.075  | 0.332   |
| 2013             | 0.235                                       | 1.277  | 0.940  | 0.319   |
| 2014             | 0.223                                       | 1.156  | 0.867  | 0.297   |
| 2015             | 0.218                                       | 1.127  | 0.828  | 0.297   |
| 2016             | 0.208                                       | 1.113  | 0.847  | 0.273   |
| 2017             | 0.213                                       | 1.084  | 0.884  | 0.262   |
| 2018             | 0.233                                       | 1.060  | 0.934  | 0.265   |
|                  |   |  |  | Projections (d)   |
| 2019             |   |  |  | 0.255   |
| 2020             |   |  |  | 0.249   |
| 1/1/2021         |   |  |  | 0.245   |

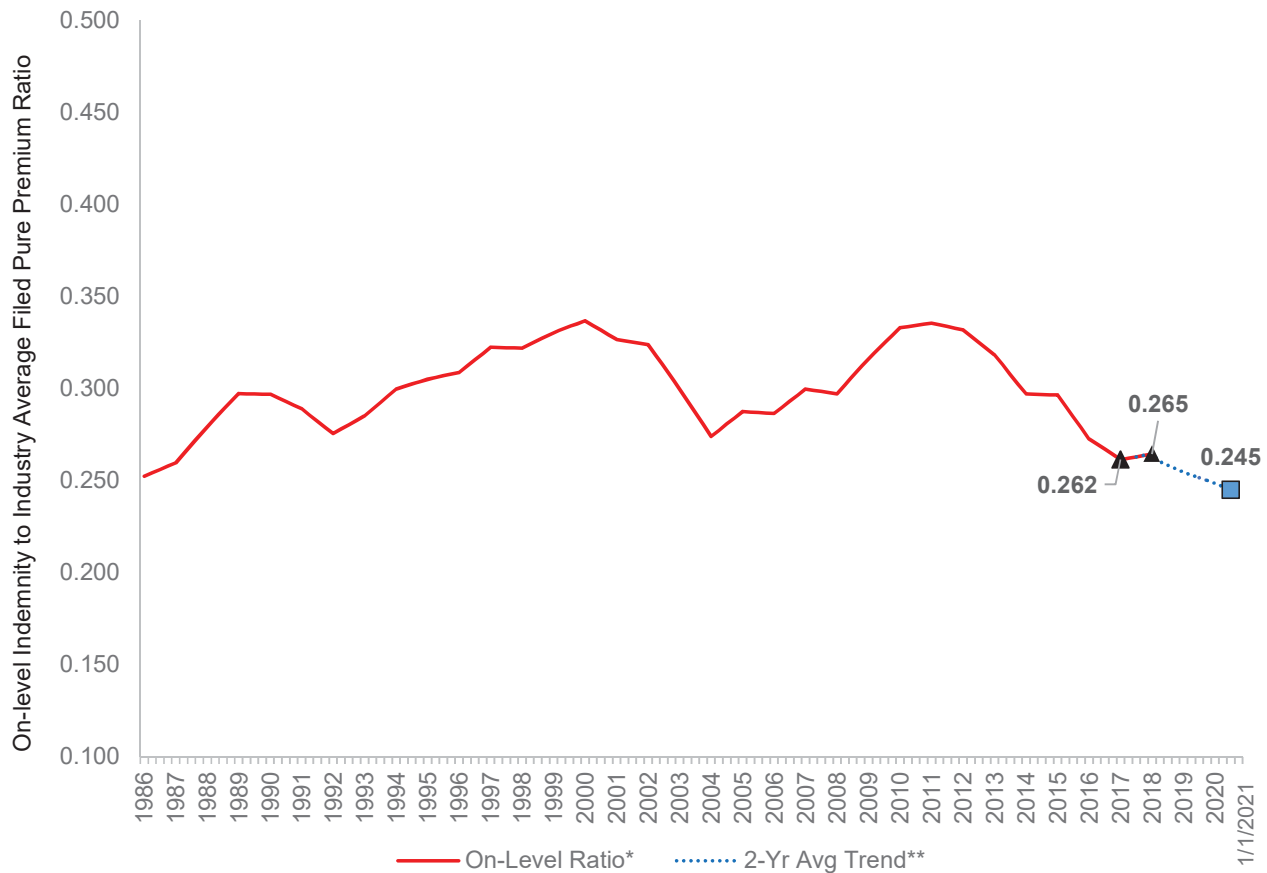
(a) See Exhibit 3.1.

(b) See Exhibit 4.1.

(c) See Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from Exhibit 6.2, the actual frequency trend for accident year 2018 from Exhibit 12, and projected frequency trends for accident years 2019 through 2021 from Exhibit 6.1; these trends were then separately applied to the 2017 and 2018 on-level ratios.

**On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios  
Based on Experience as of March 31, 2019**



\* On-level indemnity to industry average filed pure premium ratios (see Exhibit 7.1)

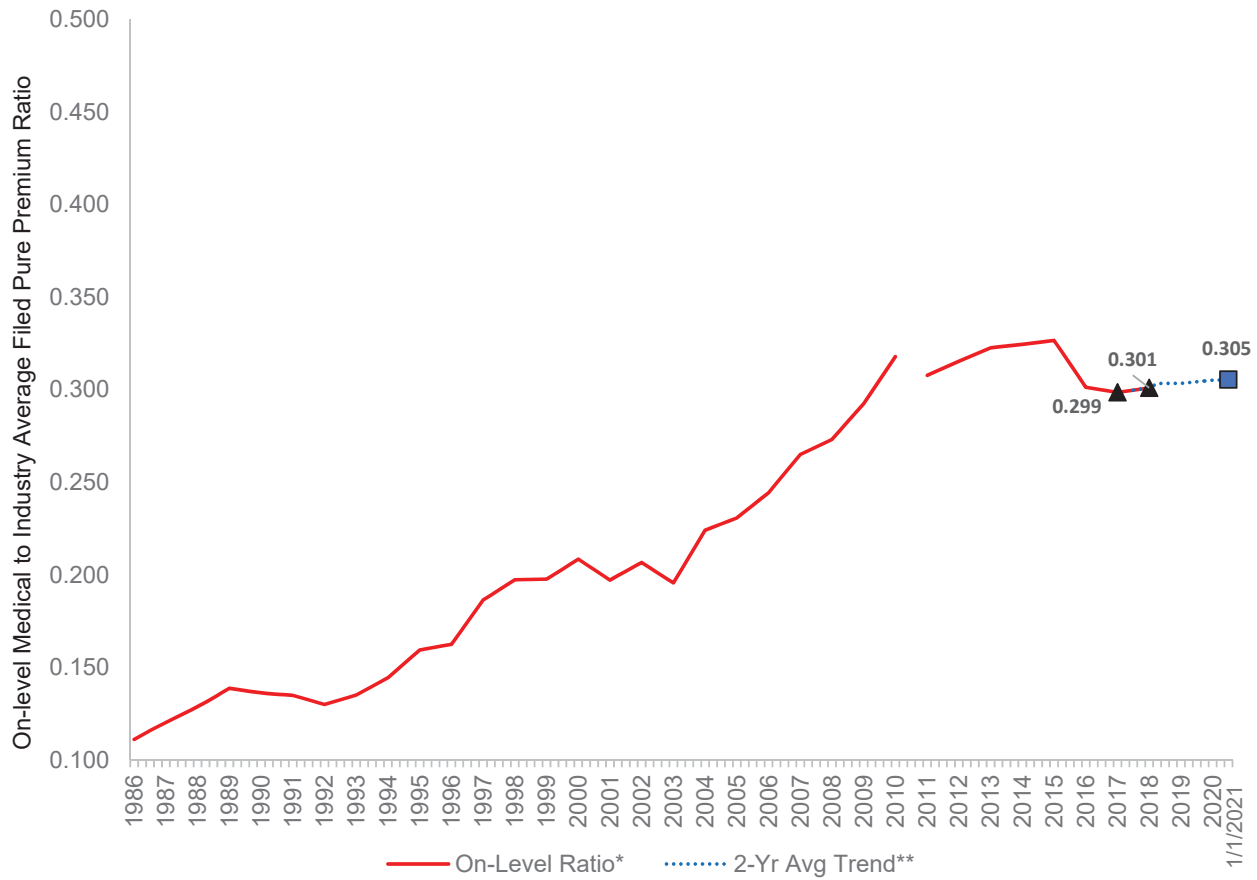
\*\* The 1/1/2021 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2017 and 2018 years.

**Projected On-Level Accident Year  
Medical Loss to Industry Average Filed Pure Premium Ratios  
Based on Experience as of March 31, 2019**

| Accident<br>Year | (1)<br>Developed Medical<br>Loss Ratio(a) | (2)<br>Composite Medical<br>On-Level Factor(b) | (3)<br>Composite Premium<br>Adjustment Factor(c) | (4)<br>On-Level Medical to<br>Industry Average Filed<br>Pure Premium Ratio(e)<br>(1)×(2)÷(3) |
|------------------|---|--|--|--|
| 1986             | 0.345                                     | 0.803  | 2.490  | 0.111  |
| 1987             | 0.323                                     | 0.774  | 2.075  | 0.120  |
| 1988             | 0.314                                     | 0.746  | 1.816  | 0.129  |
| 1989             | 0.335                                     | 0.724  | 1.747  | 0.139  |
| 1990             | 0.377                                     | 0.586  | 1.624  | 0.136  |
| 1991             | 0.395                                     | 0.501  | 1.469  | 0.135  |
| 1992             | 0.329                                     | 0.529  | 1.338  | 0.130  |
| 1993             | 0.276                                     | 0.633  | 1.291  | 0.135  |
| 1994             | 0.318                                     | 0.663  | 1.462  | 0.144  |
| 1995             | 0.468                                     | 0.654  | 1.920  | 0.159  |
| 1996             | 0.500                                     | 0.645  | 1.987  | 0.162  |
| 1997             | 0.563                                     | 0.639  | 1.929  | 0.186  |
| 1998             | 0.679                                     | 0.563  | 1.937  | 0.197  |
| 1999             | 0.745                                     | 0.488  | 1.840  | 0.198  |
| 2000             | 0.677                                     | 0.448  | 1.456  | 0.209  |
| 2001             | 0.601                                     | 0.409  | 1.247  | 0.197  |
| 2002             | 0.467                                     | 0.425  | 0.960  | 0.207  |
| 2003             | 0.300                                     | 0.445  | 0.682  | 0.196  |
| 2004             | 0.205                                     | 0.673  | 0.615  | 0.224  |
| 2005             | 0.201                                     | 0.782  | 0.680  | 0.231  |
| 2006             | 0.260                                     | 0.822  | 0.874  | 0.244  |
| 2007             | 0.367                                     | 0.806  | 1.117  | 0.265  |
| 2008             | 0.460                                     | 0.801  | 1.349  | 0.273  |
| 2009             | 0.539                                     | 0.790  | 1.456  | 0.292  |
| 2010             | 0.534                                     | 0.787  | 1.323  | 0.318  |
| 2011             | 0.460                                     | 0.809  | 1.208  | 0.308  |
| 2012             | 0.397                                     | 0.855  | 1.075  | 0.315  |
| 2013             | 0.323                                     | 0.938  | 0.940  | 0.323  |
| 2014             | 0.285                                     | 0.986  | 0.867  | 0.324  |
| 2015             | 0.268                                     | 1.009  | 0.828  | 0.327  |
| 2016             | 0.253                                     | 1.010  | 0.847  | 0.301  |
| 2017             | 0.261                                     | 1.012  | 0.884  | 0.299  |
| 2018             | 0.279                                     | 1.007  | 0.934  | 0.301  |
|                  |   |  |  | Projections (d)  |
| 2019             |   |  |  | 0.303  |
| 2020             |   |  |  | 0.305  |
| 1/1/2021         |   |  |  | 0.305  |

- (a) See Exhibit 3.2. Medical loss ratios for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Ratios for accident years 2010 and prior do reflect MCCP costs.
- (b) See Exhibit 4.4.
- (c) See Exhibit 5.2.
- (d) These on-level ratios were projected based on an estimated annual medical severity trend from Exhibit 6.4, the actual frequency trend for accident year 2018 from Exhibit 12, and projected frequency trends for accident years 2019 through 2021 from Exhibit 6.1; these trends were then separately applied to the 2017 and 2018 on-level ratios.
- (e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

**On-Level Medical Loss to Industry Average Filed Pure Premium Ratios  
Based on Experience as of March 31, 2019**



\* On-level medical to industry average filed pure premium ratios (see Exhibit 7.3)

\*\* The 1/1/2021 medical to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2017 and 2018 years.



**Indicated Loss to Industry Average Filed Pure Premium Ratios  
For Policies with Effective Dates between January 1, 2020 and December 31, 2020  
Based on Experience as of March 31, 2019**

|   | <u>Indemnity</u> | <u>Medical</u> | <u>Total</u> |
|---|------------------|----------------|--------------|
| 1. Projected Loss to Industry Average Filed Pure Premium Ratio<br>(See Exhibits 7.1 and 7.3)                          | 0.245            | 0.305          | 0.550        |
| 2. Impact of Medical Treatment Utilization Schedule (MTUS) Drug Formulary   | ---              | -0.6%          | ---          |
| 3. Projected Loss to Industry Average Filed Pure Premium Ratio After Impact<br>of MTUS Drug Formulary (1) x [1 + (2)] | 0.245            | 0.304          | 0.549        |

Quarterly Incurred Indemnity Loss Development Factors  
Through March 31, 2019

| Age in | Accident Year |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|--------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Months | 1998          | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |  |
| 6/3    |               |       |       |       |       |       |       |       | 2.417 | 2.724 | 2.785 | 3.031 | 3.116 | 3.052 | 3.238 | 3.344 | 3.303 | 3.209 | 3.201 | 3.356 | 3.200 |  |
| 9/6    |               |       |       |       |       |       |       |       | 1.656 | 1.776 | 1.820 | 1.848 | 1.904 | 2.001 | 1.966 | 1.940 | 1.960 | 1.948 | 1.945 | 1.874 | 1.998 |  |
| 12/9   |               |       |       |       |       |       |       |       | 1.448 | 1.511 | 1.510 | 1.530 | 1.564 | 1.632 | 1.587 | 1.585 | 1.570 | 1.578 | 1.578 | 1.580 | 1.578 |  |
| 15/12  | 1.229         | 1.260 | 1.268 | 1.250 | 1.257 | 1.238 | 1.180 | 1.149 | 1.189 | 1.234 | 1.248 | 1.293 | 1.306 | 1.306 | 1.303 | 1.301 | 1.301 | 1.313 | 1.309 | 1.298 | 1.299 |  |
| 18/15  | 1.172         | 1.202 | 1.188 | 1.184 | 1.206 | 1.167 | 1.101 | 1.103 | 1.140 | 1.158 | 1.182 | 1.194 | 1.197 | 1.195 | 1.206 | 1.178 | 1.190 | 1.187 | 1.189 | 1.177 |       |  |
| 21/18  | 1.145         | 1.140 | 1.150 | 1.148 | 1.153 | 1.127 | 1.066 | 1.096 | 1.117 | 1.128 | 1.139 | 1.153 | 1.140 | 1.146 | 1.141 | 1.141 | 1.132 | 1.137 | 1.134 | 1.138 |       |  |
| 24/21  | 1.126         | 1.112 | 1.121 | 1.111 | 1.117 | 1.094 | 1.045 | 1.082 | 1.098 | 1.106 | 1.106 | 1.114 | 1.119 | 1.117 | 1.111 | 1.104 | 1.114 | 1.111 | 1.104 | 1.100 |       |  |
| 27/24  | 1.074         | 1.096 | 1.093 | 1.100 | 1.094 | 1.073 | 1.045 | 1.070 | 1.082 | 1.081 | 1.088 | 1.089 | 1.091 | 1.085 | 1.087 | 1.081 | 1.082 | 1.087 | 1.079 | 1.078 |       |  |
| 30/27  | 1.078         | 1.069 | 1.074 | 1.082 | 1.064 | 1.051 | 1.040 | 1.054 | 1.057 | 1.072 | 1.075 | 1.075 | 1.080 | 1.071 | 1.068 | 1.067 | 1.074 | 1.066 | 1.064 |       |       |  |
| 33/30  | 1.045         | 1.058 | 1.048 | 1.062 | 1.047 | 1.032 | 1.036 | 1.042 | 1.049 | 1.053 | 1.059 | 1.052 | 1.064 | 1.053 | 1.060 | 1.047 | 1.055 | 1.050 | 1.047 |       |       |  |
| 36/33  | 1.043         | 1.046 | 1.039 | 1.046 | 1.035 | 1.020 | 1.029 | 1.033 | 1.039 | 1.043 | 1.051 | 1.049 | 1.049 | 1.043 | 1.041 | 1.043 | 1.042 | 1.035 | 1.037 |       |       |  |
| 39/36  | 1.038         | 1.041 | 1.035 | 1.038 | 1.028 | 1.017 | 1.027 | 1.029 | 1.031 | 1.033 | 1.040 | 1.039 | 1.039 | 1.041 | 1.035 | 1.031 | 1.036 | 1.031 | 1.028 |       |       |  |
| 42/39  | 1.027         | 1.028 | 1.034 | 1.030 | 1.023 | 1.018 | 1.020 | 1.020 | 1.031 | 1.033 | 1.036 | 1.038 | 1.035 | 1.032 | 1.028 | 1.031 | 1.030 | 1.027 |       |       |       |  |
| 45/42  | 1.024         | 1.026 | 1.026 | 1.020 | 1.009 | 1.019 | 1.018 | 1.024 | 1.026 | 1.028 | 1.030 | 1.035 | 1.027 | 1.033 | 1.022 | 1.024 | 1.024 | 1.024 |       |       |       |  |
| 48/45  | 1.025         | 1.020 | 1.022 | 1.013 | 1.008 | 1.013 | 1.013 | 1.021 | 1.019 | 1.021 | 1.024 | 1.024 | 1.026 | 1.023 | 1.024 | 1.020 | 1.020 | 1.016 |       |       |       |  |
| 51/48  | 1.022         | 1.017 | 1.018 | 1.015 | 1.010 | 1.016 | 1.010 | 1.018 | 1.021 | 1.018 | 1.022 | 1.023 | 1.021 | 1.018 | 1.017 | 1.015 | 1.019 | 1.016 |       |       |       |  |
| 54/51  | 1.019         | 1.018 | 1.013 | 1.009 | 1.007 | 1.017 | 1.009 | 1.017 | 1.021 | 1.020 | 1.021 | 1.020 | 1.020 | 1.016 | 1.019 | 1.015 | 1.014 |       |       |       |       |  |
| 57/54  | 1.014         | 1.017 | 1.012 | 1.006 | 1.008 | 1.011 | 1.011 | 1.018 | 1.017 | 1.014 | 1.018 | 1.017 | 1.015 | 1.014 | 1.013 | 1.011 | 1.014 |       |       |       |       |  |
| 60/57  | 1.013         | 1.014 | 1.007 | 1.005 | 1.008 | 1.009 | 1.011 | 1.013 | 1.019 | 1.016 | 1.013 | 1.015 | 1.012 | 1.014 | 1.012 | 1.012 | 1.011 |       |       |       |       |  |
| 63/60  | 1.012         | 1.012 | 1.007 | 1.007 | 1.008 | 1.008 | 1.010 | 1.014 | 1.013 | 1.015 | 1.011 | 1.014 | 1.014 | 1.009 | 1.012 | 1.009 | 1.010 |       |       |       |       |  |
| 66/63  | 1.014         | 1.009 | 1.005 | 1.006 | 1.011 | 1.008 | 1.010 | 1.013 | 1.016 | 1.014 | 1.015 | 1.013 | 1.013 | 1.009 | 1.010 | 1.009 |       |       |       |       |       |  |
| 69/66  | 1.010         | 1.007 | 1.003 | 1.005 | 1.008 | 1.007 | 1.011 | 1.012 | 1.011 | 1.010 | 1.009 | 1.012 | 1.007 | 1.010 | 1.010 | 1.007 |       |       |       |       |       |  |
| 72/69  | 1.009         | 1.006 | 1.005 | 1.005 | 1.005 | 1.009 | 1.009 | 1.013 | 1.011 | 1.009 | 1.009 | 1.009 | 1.010 | 1.008 | 1.007 | 1.006 |       |       |       |       |       |  |
| 75/72  | 1.006         | 1.004 | 1.004 | 1.005 | 1.003 | 1.005 | 1.007 | 1.010 | 1.011 | 1.010 | 1.010 | 1.008 | 1.007 | 1.004 | 1.006 | 1.007 |       |       |       |       |       |  |
| 78/75  | 1.007         | 1.004 | 1.003 | 1.007 | 1.005 | 1.006 | 1.006 | 1.012 | 1.009 | 1.010 | 1.006 | 1.006 | 1.006 | 1.006 | 1.005 |       |       |       |       |       |       |  |
| 81/78  | 1.005         | 1.002 | 1.003 | 1.004 | 1.004 | 1.005 | 1.006 | 1.010 | 1.009 | 1.007 | 1.007 | 1.006 | 1.006 | 1.007 | 1.005 |       |       |       |       |       |       |  |
| 84/81  | 1.003         | 1.003 | 1.005 | 1.003 | 1.006 | 1.006 | 1.007 | 1.008 | 1.005 | 1.009 | 1.006 | 1.004 | 1.007 | 1.004 | 1.007 |       |       |       |       |       |       |  |
| 87/84  | 1.003         | 1.003 | 1.002 | 1.003 | 1.004 | 1.002 | 1.007 | 1.010 | 1.007 | 1.004 | 1.005 | 1.006 | 1.004 | 1.006 | 1.005 |       |       |       |       |       |       |  |
| 90/87  | 1.001         | 1.003 | 1.003 | 1.003 | 1.003 | 1.004 | 1.008 | 1.008 | 1.008 | 1.008 | 1.004 | 1.005 | 1.005 | 1.005 |       |       |       |       |       |       |       |  |
| 93/90  | 1.001         | 1.002 | 1.004 | 1.003 | 1.002 | 1.005 | 1.006 | 1.008 | 1.006 | 1.007 | 1.006 | 1.003 | 1.004 | 1.005 |       |       |       |       |       |       |       |  |
| 96/93  | 1.002         | 1.003 | 1.001 | 1.004 | 1.002 | 1.006 | 1.006 | 1.003 | 1.002 | 1.003 | 1.004 | 1.004 | 1.003 | 1.003 |       |       |       |       |       |       |       |  |

Source: WCIRB accident year experience calls

Quarterly Incurred Medical Loss Development Factors \*  
Through March 31, 2019

| Age in | Accident Year |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Months | 1998          | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 6/3    |               |       |       |       |       |       |       |       | 2.584 | 2.662 | 2.782 | 2.892 | 2.992 | 2.757 | 2.853 | 2.843 | 2.921 | 2.863 | 3.019 | 3.199 | 2.891 |
| 9/6    |               |       |       |       |       |       |       |       | 1.650 | 1.744 | 1.717 | 1.807 | 1.800 | 1.827 | 1.833 | 1.819 | 1.840 | 1.884 | 1.755 | 1.741 | 1.821 |
| 12/9   |               |       |       |       |       |       |       |       | 1.453 | 1.443 | 1.466 | 1.454 | 1.488 | 1.521 | 1.484 | 1.500 | 1.482 | 1.451 | 1.487 | 1.448 | 1.459 |
| 15/12  | 1.144         | 1.168 | 1.201 | 1.207 | 1.203 | 1.197 | 1.132 | 1.145 | 1.138 | 1.182 | 1.167 | 1.199 | 1.206 | 1.228 | 1.211 | 1.207 | 1.199 | 1.206 | 1.215 | 1.185 | 1.191 |
| 18/15  | 1.093         | 1.116 | 1.123 | 1.144 | 1.151 | 1.126 | 1.086 | 1.087 | 1.103 | 1.106 | 1.126 | 1.135 | 1.129 | 1.141 | 1.136 | 1.117 | 1.114 | 1.094 | 1.095 | 1.087 |       |
| 21/18  | 1.078         | 1.086 | 1.101 | 1.122 | 1.116 | 1.093 | 1.055 | 1.061 | 1.073 | 1.081 | 1.090 | 1.097 | 1.101 | 1.103 | 1.085 | 1.088 | 1.077 | 1.082 | 1.069 | 1.069 |       |
| 24/21  | 1.074         | 1.072 | 1.080 | 1.083 | 1.082 | 1.060 | 1.040 | 1.052 | 1.070 | 1.074 | 1.067 | 1.074 | 1.080 | 1.080 | 1.067 | 1.064 | 1.055 | 1.059 | 1.057 | 1.047 |       |
| 27/24  | 1.044         | 1.061 | 1.070 | 1.080 | 1.075 | 1.042 | 1.034 | 1.048 | 1.055 | 1.058 | 1.053 | 1.071 | 1.066 | 1.072 | 1.058 | 1.048 | 1.046 | 1.048 | 1.041 | 1.036 |       |
| 30/27  | 1.044         | 1.052 | 1.058 | 1.070 | 1.051 | 1.038 | 1.039 | 1.049 | 1.046 | 1.054 | 1.057 | 1.048 | 1.063 | 1.052 | 1.046 | 1.037 | 1.044 | 1.037 | 1.032 |       |       |
| 33/30  | 1.035         | 1.047 | 1.051 | 1.059 | 1.035 | 1.018 | 1.032 | 1.030 | 1.041 | 1.045 | 1.045 | 1.051 | 1.055 | 1.045 | 1.046 | 1.031 | 1.033 | 1.033 | 1.027 |       |       |
| 36/33  | 1.037         | 1.042 | 1.035 | 1.040 | 1.029 | 1.016 | 1.024 | 1.034 | 1.042 | 1.033 | 1.042 | 1.040 | 1.041 | 1.037 | 1.028 | 1.026 | 1.027 | 1.021 | 1.021 |       |       |
| 39/36  | 1.029         | 1.032 | 1.034 | 1.037 | 1.018 | 1.012 | 1.028 | 1.025 | 1.027 | 1.029 | 1.033 | 1.031 | 1.040 | 1.039 | 1.027 | 1.021 | 1.023 | 1.022 | 1.011 |       |       |
| 42/39  | 1.025         | 1.031 | 1.036 | 1.026 | 1.019 | 1.013 | 1.017 | 1.020 | 1.025 | 1.035 | 1.036 | 1.037 | 1.037 | 1.031 | 1.022 | 1.026 | 1.022 | 1.017 |       |       |       |
| 45/42  | 1.025         | 1.033 | 1.032 | 1.023 | 1.012 | 1.019 | 1.033 | 1.021 | 1.025 | 1.029 | 1.026 | 1.030 | 1.028 | 1.027 | 1.021 | 1.018 | 1.017 | 1.015 |       |       |       |
| 48/45  | 1.028         | 1.023 | 1.026 | 1.017 | 1.008 | 1.013 | 1.025 | 1.018 | 1.022 | 1.025 | 1.029 | 1.034 | 1.022 | 1.023 | 1.020 | 1.018 | 1.014 | 1.008 |       |       |       |
| 51/48  | 1.019         | 1.020 | 1.024 | 1.014 | 1.009 | 1.013 | 1.018 | 1.015 | 1.020 | 1.021 | 1.021 | 1.026 | 1.024 | 1.019 | 1.014 | 1.013 | 1.010 | 1.008 |       |       |       |
| 54/51  | 1.025         | 1.027 | 1.017 | 1.016 | 1.010 | 1.012 | 1.021 | 1.019 | 1.022 | 1.022 | 1.027 | 1.023 | 1.019 | 1.018 | 1.015 | 1.011 | 1.009 |       |       |       |       |
| 57/54  | 1.027         | 1.024 | 1.014 | 1.007 | 1.011 | 1.017 | 1.020 | 1.018 | 1.019 | 1.019 | 1.023 | 1.020 | 1.017 | 1.018 | 1.013 | 1.007 | 1.009 |       |       |       |       |
| 60/57  | 1.021         | 1.021 | 1.015 | 1.009 | 1.008 | 1.014 | 1.020 | 1.019 | 1.018 | 1.017 | 1.019 | 1.016 | 1.015 | 1.014 | 1.012 | 1.007 | 1.007 |       |       |       |       |
| 63/60  | 1.014         | 1.020 | 1.013 | 1.012 | 1.008 | 1.016 | 1.015 | 1.021 | 1.015 | 1.018 | 1.016 | 1.020 | 1.015 | 1.009 | 1.009 | 1.005 | 1.008 |       |       |       |       |
| 66/63  | 1.023         | 1.016 | 1.010 | 1.012 | 1.015 | 1.013 | 1.015 | 1.022 | 1.019 | 1.018 | 1.017 | 1.015 | 1.010 | 1.008 | 1.008 | 1.006 |       |       |       |       |       |
| 69/66  | 1.025         | 1.013 | 1.006 | 1.008 | 1.016 | 1.018 | 1.015 | 1.023 | 1.017 | 1.017 | 1.015 | 1.014 | 1.010 | 1.008 | 1.008 | 1.005 |       |       |       |       |       |
| 72/69  | 1.020         | 1.009 | 1.007 | 1.009 | 1.015 | 1.010 | 1.014 | 1.015 | 1.013 | 1.014 | 1.012 | 1.011 | 1.010 | 1.007 | 1.005 | 1.005 |       |       |       |       |       |
| 75/72  | 1.015         | 1.008 | 1.006 | 1.008 | 1.010 | 1.009 | 1.012 | 1.012 | 1.011 | 1.018 | 1.013 | 1.008 | 1.006 | 1.001 | 1.003 | 1.006 |       |       |       |       |       |
| 78/75  | 1.012         | 1.012 | 1.008 | 1.012 | 1.010 | 1.011 | 1.018 | 1.013 | 1.012 | 1.012 | 1.010 | 1.008 | 1.008 | 1.006 | 1.005 |       |       |       |       |       |       |
| 81/78  | 1.006         | 1.006 | 1.006 | 1.009 | 1.010 | 1.014 | 1.018 | 1.017 | 1.016 | 1.009 | 1.009 | 1.005 | 1.006 | 1.006 | 1.005 |       |       |       |       |       |       |
| 84/81  | 1.008         | 1.006 | 1.009 | 1.014 | 1.009 | 1.007 | 1.012 | 1.011 | 1.008 | 1.010 | 1.008 | 1.007 | 1.005 | 1.001 | 1.003 |       |       |       |       |       |       |
| 87/84  | 1.005         | 1.008 | 1.008 | 1.010 | 1.009 | 1.010 | 1.012 | 1.014 | 1.012 | 1.008 | 1.007 | 1.004 | 1.003 | 1.001 | 1.002 |       |       |       |       |       |       |
| 90/87  | 1.002         | 1.005 | 1.008 | 1.008 | 1.009 | 1.012 | 1.009 | 1.009 | 1.013 | 1.008 | 1.006 | 1.006 | 1.003 | 1.006 |       |       |       |       |       |       |       |
| 93/90  | 1.006         | 1.007 | 1.015 | 1.009 | 1.011 | 1.010 | 1.011 | 1.012 | 1.009 | 1.009 | 1.007 | 1.002 | 1.003 | 1.002 |       |       |       |       |       |       |       |
| 96/93  | 1.007         | 1.007 | 1.010 | 1.012 | 1.008 | 1.010 | 1.011 | 1.009 | 1.005 | 1.006 | 1.005 | 1.003 | 1.002 | 1.001 |       |       |       |       |       |       |       |

Source: WCIRB accident year experience calls

\* Incurred medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Quarterly Paid Indemnity Loss Development Factors  
Through March 31, 2019

| Age in | Accident Year |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|--------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Months | 1998          | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |  |
| 6/3    |               |       |       |       |       |       |       |       | 4.376 | 4.495 | 4.553 | 4.807 | 4.911 | 4.722 | 4.854 | 5.099 | 5.076 | 5.056 | 5.087 | 5.060 | 4.987 |  |
| 9/6    |               |       |       |       |       |       |       |       | 2.259 | 2.375 | 2.377 | 2.398 | 2.452 | 2.432 | 2.484 | 2.462 | 2.462 | 2.484 | 2.456 | 2.445 | 2.538 |  |
| 12/9   |               |       |       |       |       |       |       |       | 1.812 | 1.834 | 1.810 | 1.825 | 1.861 | 1.869 | 1.877 | 1.866 | 1.879 | 1.910 | 1.882 | 1.892 | 1.891 |  |
| 15/12  | 1.499         | 1.536 | 1.538 | 1.552 | 1.550 | 1.516 | 1.491 | 1.456 | 1.482 | 1.488 | 1.481 | 1.507 | 1.532 | 1.539 | 1.506 | 1.539 | 1.540 | 1.559 | 1.571 | 1.544 | 1.529 |  |
| 18/15  | 1.380         | 1.399 | 1.395 | 1.401 | 1.403 | 1.379 | 1.331 | 1.306 | 1.306 | 1.327 | 1.332 | 1.343 | 1.355 | 1.361 | 1.361 | 1.353 | 1.364 | 1.372 | 1.366 | 1.358 |       |  |
| 21/18  | 1.323         | 1.298 | 1.303 | 1.303 | 1.311 | 1.297 | 1.241 | 1.217 | 1.233 | 1.235 | 1.243 | 1.259 | 1.257 | 1.261 | 1.261 | 1.263 | 1.267 | 1.264 | 1.256 | 1.260 |       |  |
| 24/21  | 1.259         | 1.257 | 1.256 | 1.258 | 1.260 | 1.244 | 1.183 | 1.181 | 1.195 | 1.191 | 1.194 | 1.206 | 1.209 | 1.215 | 1.213 | 1.204 | 1.216 | 1.211 | 1.206 | 1.205 |       |  |
| 27/24  | 1.186         | 1.199 | 1.203 | 1.200 | 1.205 | 1.186 | 1.140 | 1.142 | 1.151 | 1.149 | 1.153 | 1.162 | 1.165 | 1.168 | 1.164 | 1.159 | 1.170 | 1.176 | 1.161 | 1.159 |       |  |
| 30/27  | 1.157         | 1.161 | 1.165 | 1.175 | 1.172 | 1.161 | 1.122 | 1.117 | 1.126 | 1.129 | 1.130 | 1.141 | 1.141 | 1.137 | 1.134 | 1.141 | 1.147 | 1.142 | 1.137 |       |       |  |
| 33/30  | 1.118         | 1.125 | 1.130 | 1.142 | 1.136 | 1.123 | 1.097 | 1.096 | 1.100 | 1.101 | 1.108 | 1.114 | 1.116 | 1.112 | 1.111 | 1.111 | 1.115 | 1.107 | 1.104 |       |       |  |
| 36/33  | 1.102         | 1.103 | 1.103 | 1.115 | 1.111 | 1.097 | 1.085 | 1.081 | 1.080 | 1.084 | 1.092 | 1.094 | 1.098 | 1.091 | 1.091 | 1.096 | 1.092 | 1.089 | 1.088 |       |       |  |
| 39/36  | 1.074         | 1.081 | 1.081 | 1.092 | 1.087 | 1.072 | 1.070 | 1.066 | 1.064 | 1.067 | 1.074 | 1.078 | 1.077 | 1.073 | 1.075 | 1.074 | 1.075 | 1.071 | 1.069 |       |       |  |
| 42/39  | 1.067         | 1.071 | 1.077 | 1.080 | 1.073 | 1.063 | 1.059 | 1.058 | 1.058 | 1.062 | 1.067 | 1.067 | 1.071 | 1.070 | 1.065 | 1.064 | 1.066 | 1.062 |       |       |       |  |
| 45/42  | 1.057         | 1.054 | 1.063 | 1.064 | 1.056 | 1.049 | 1.047 | 1.049 | 1.047 | 1.051 | 1.058 | 1.059 | 1.057 | 1.055 | 1.054 | 1.052 | 1.050 | 1.050 |       |       |       |  |
| 48/45  | 1.049         | 1.050 | 1.055 | 1.053 | 1.046 | 1.044 | 1.041 | 1.044 | 1.043 | 1.047 | 1.049 | 1.051 | 1.050 | 1.048 | 1.048 | 1.048 | 1.045 | 1.041 |       |       |       |  |
| 51/48  | 1.039         | 1.038 | 1.043 | 1.044 | 1.036 | 1.035 | 1.033 | 1.036 | 1.036 | 1.037 | 1.042 | 1.042 | 1.043 | 1.039 | 1.038 | 1.038 | 1.039 | 1.036 |       |       |       |  |
| 54/51  | 1.035         | 1.038 | 1.036 | 1.037 | 1.034 | 1.035 | 1.030 | 1.028 | 1.035 | 1.036 | 1.038 | 1.041 | 1.038 | 1.036 | 1.036 | 1.033 | 1.032 |       |       |       |       |  |
| 57/54  | 1.029         | 1.033 | 1.037 | 1.030 | 1.028 | 1.026 | 1.025 | 1.028 | 1.030 | 1.032 | 1.033 | 1.033 | 1.032 | 1.033 | 1.028 | 1.027 | 1.028 |       |       |       |       |  |
| 60/57  | 1.025         | 1.030 | 1.027 | 1.026 | 1.024 | 1.024 | 1.024 | 1.024 | 1.028 | 1.029 | 1.029 | 1.032 | 1.027 | 1.030 | 1.028 | 1.025 | 1.025 |       |       |       |       |  |
| 63/60  | 1.023         | 1.026 | 1.024 | 1.021 | 1.022 | 1.019 | 1.019 | 1.021 | 1.023 | 1.025 | 1.025 | 1.024 | 1.026 | 1.025 | 1.025 | 1.021 | 1.021 |       |       |       |       |  |
| 66/63  | 1.023         | 1.023 | 1.023 | 1.021 | 1.019 | 1.019 | 1.019 | 1.020 | 1.025 | 1.025 | 1.025 | 1.025 | 1.023 | 1.022 | 1.022 | 1.018 |       |       |       |       |       |  |
| 69/66  | 1.019         | 1.021 | 1.020 | 1.017 | 1.016 | 1.017 | 1.016 | 1.021 | 1.020 | 1.020 | 1.020 | 1.022 | 1.020 | 1.019 | 1.022 | 1.017 |       |       |       |       |       |  |
| 72/69  | 1.018         | 1.016 | 1.018 | 1.016 | 1.016 | 1.015 | 1.017 | 1.015 | 1.020 | 1.019 | 1.019 | 1.019 | 1.019 | 1.019 | 1.016 | 1.014 |       |       |       |       |       |  |
| 75/72  | 1.015         | 1.016 | 1.015 | 1.014 | 1.012 | 1.012 | 1.013 | 1.015 | 1.019 | 1.018 | 1.016 | 1.016 | 1.017 | 1.015 | 1.014 | 1.012 |       |       |       |       |       |  |
| 78/75  | 1.014         | 1.014 | 1.012 | 1.013 | 1.012 | 1.011 | 1.012 | 1.015 | 1.017 | 1.016 | 1.015 | 1.016 | 1.016 | 1.015 | 1.013 |       |       |       |       |       |       |  |
| 81/78  | 1.013         | 1.013 | 1.011 | 1.012 | 1.011 | 1.010 | 1.012 | 1.015 | 1.015 | 1.016 | 1.015 | 1.015 | 1.013 | 1.012 | 1.011 |       |       |       |       |       |       |  |
| 84/81  | 1.011         | 1.011 | 1.013 | 1.010 | 1.010 | 1.009 | 1.011 | 1.013 | 1.015 | 1.014 | 1.013 | 1.012 | 1.013 | 1.013 | 1.011 |       |       |       |       |       |       |  |
| 87/84  | 1.012         | 1.010 | 1.008 | 1.010 | 1.009 | 1.008 | 1.009 | 1.012 | 1.014 | 1.013 | 1.010 | 1.012 | 1.010 | 1.011 | 1.010 |       |       |       |       |       |       |  |
| 90/87  | 1.008         | 1.009 | 1.010 | 1.009 | 1.008 | 1.008 | 1.011 | 1.012 | 1.013 | 1.012 | 1.011 | 1.010 | 1.010 | 1.010 |       |       |       |       |       |       |       |  |
| 93/90  | 1.009         | 1.009 | 1.008 | 1.008 | 1.007 | 1.008 | 1.012 | 1.011 | 1.011 | 1.012 | 1.010 | 1.010 | 1.009 | 1.009 |       |       |       |       |       |       |       |  |
| 96/93  | 1.008         | 1.009 | 1.006 | 1.007 | 1.007 | 1.007 | 1.008 | 1.011 | 1.011 | 1.008 | 1.010 | 1.010 | 1.009 | 1.010 |       |       |       |       |       |       |       |  |

Source: WCIRB accident year experience calls

Quarterly Paid Medical Loss Development Factors \*  
Through March 31, 2019

| Age in | Accident Year |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Months | 1998          | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 6/3    |               |       |       |       |       |       |       |       | 5.308 | 5.615 | 6.579 | 6.101 | 6.048 | 5.854 | 5.989 | 6.284 | 5.604 | 5.720 | 5.897 | 5.238 | 5.462 |
| 9/6    |               |       |       |       |       |       |       |       | 2.348 | 2.381 | 2.348 | 2.375 | 2.361 | 2.327 | 2.398 | 2.498 | 2.428 | 2.287 | 2.326 | 2.249 | 2.351 |
| 12/9   |               |       |       |       |       |       |       |       | 1.716 | 1.765 | 1.731 | 1.723 | 1.756 | 1.746 | 1.763 | 1.736 | 1.750 | 1.705 | 1.752 | 1.737 | 1.719 |
| 15/12  | 1.453         | 1.490 | 1.514 | 1.547 | 1.554 | 1.510 | 1.437 | 1.423 | 1.429 | 1.444 | 1.413 | 1.429 | 1.445 | 1.472 | 1.446 | 1.443 | 1.460 | 1.454 | 1.479 | 1.434 | 1.425 |
| 18/15  | 1.241         | 1.267 | 1.286 | 1.310 | 1.330 | 1.295 | 1.243 | 1.230 | 1.227 | 1.259 | 1.243 | 1.259 | 1.268 | 1.282 | 1.284 | 1.263 | 1.265 | 1.278 | 1.262 | 1.250 |       |
| 21/18  | 1.164         | 1.168 | 1.192 | 1.219 | 1.211 | 1.179 | 1.153 | 1.151 | 1.163 | 1.173 | 1.170 | 1.178 | 1.182 | 1.187 | 1.192 | 1.193 | 1.192 | 1.189 | 1.173 | 1.170 |       |
| 24/21  | 1.132         | 1.124 | 1.149 | 1.159 | 1.154 | 1.125 | 1.115 | 1.118 | 1.127 | 1.133 | 1.132 | 1.137 | 1.144 | 1.153 | 1.154 | 1.148 | 1.146 | 1.146 | 1.141 | 1.131 |       |
| 27/24  | 1.096         | 1.108 | 1.121 | 1.128 | 1.123 | 1.093 | 1.090 | 1.093 | 1.106 | 1.107 | 1.110 | 1.112 | 1.119 | 1.120 | 1.123 | 1.122 | 1.122 | 1.124 | 1.111 | 1.111 |       |
| 30/27  | 1.077         | 1.088 | 1.101 | 1.108 | 1.103 | 1.077 | 1.084 | 1.087 | 1.097 | 1.100 | 1.100 | 1.106 | 1.107 | 1.111 | 1.109 | 1.111 | 1.111 | 1.105 | 1.100 |       |       |
| 33/30  | 1.065         | 1.072 | 1.086 | 1.089 | 1.077 | 1.063 | 1.071 | 1.065 | 1.081 | 1.083 | 1.086 | 1.092 | 1.094 | 1.093 | 1.094 | 1.090 | 1.089 | 1.082 | 1.082 |       |       |
| 36/33  | 1.055         | 1.066 | 1.069 | 1.076 | 1.061 | 1.055 | 1.062 | 1.062 | 1.071 | 1.072 | 1.072 | 1.077 | 1.083 | 1.082 | 1.078 | 1.080 | 1.076 | 1.071 | 1.067 |       |       |
| 39/36  | 1.051         | 1.059 | 1.060 | 1.061 | 1.049 | 1.044 | 1.053 | 1.056 | 1.057 | 1.059 | 1.061 | 1.066 | 1.071 | 1.066 | 1.069 | 1.065 | 1.064 | 1.061 | 1.055 |       |       |
| 42/39  | 1.044         | 1.049 | 1.055 | 1.054 | 1.041 | 1.044 | 1.049 | 1.054 | 1.055 | 1.058 | 1.059 | 1.061 | 1.068 | 1.063 | 1.062 | 1.057 | 1.059 | 1.057 |       |       |       |
| 45/42  | 1.039         | 1.045 | 1.047 | 1.044 | 1.036 | 1.037 | 1.040 | 1.047 | 1.048 | 1.049 | 1.054 | 1.053 | 1.056 | 1.056 | 1.053 | 1.051 | 1.045 | 1.044 |       |       |       |
| 48/45  | 1.035         | 1.039 | 1.044 | 1.037 | 1.032 | 1.035 | 1.037 | 1.043 | 1.043 | 1.046 | 1.047 | 1.050 | 1.051 | 1.046 | 1.045 | 1.046 | 1.041 | 1.040 |       |       |       |
| 51/48  | 1.030         | 1.035 | 1.037 | 1.034 | 1.031 | 1.030 | 1.033 | 1.037 | 1.036 | 1.036 | 1.039 | 1.041 | 1.043 | 1.040 | 1.039 | 1.038 | 1.037 | 1.032 |       |       |       |
| 54/51  | 1.031         | 1.036 | 1.032 | 1.027 | 1.030 | 1.029 | 1.034 | 1.034 | 1.035 | 1.035 | 1.036 | 1.042 | 1.038 | 1.035 | 1.035 | 1.034 | 1.032 |       |       |       |       |
| 57/54  | 1.026         | 1.030 | 1.027 | 1.024 | 1.024 | 1.024 | 1.029 | 1.031 | 1.034 | 1.031 | 1.033 | 1.038 | 1.034 | 1.034 | 1.031 | 1.028 | 1.026 |       |       |       |       |
| 60/57  | 1.026         | 1.028 | 1.026 | 1.021 | 1.023 | 1.026 | 1.028 | 1.029 | 1.028 | 1.032 | 1.032 | 1.035 | 1.030 | 1.030 | 1.030 | 1.023 | 1.022 |       |       |       |       |
| 63/60  | 1.023         | 1.025 | 1.022 | 1.019 | 1.019 | 1.020 | 1.024 | 1.024 | 1.024 | 1.024 | 1.027 | 1.027 | 1.026 | 1.027 | 1.025 | 1.022 | 1.022 |       |       |       |       |
| 66/63  | 1.026         | 1.021 | 1.020 | 1.020 | 1.018 | 1.021 | 1.023 | 1.024 | 1.026 | 1.026 | 1.029 | 1.029 | 1.024 | 1.028 | 1.023 | 1.021 |       |       |       |       |       |
| 69/66  | 1.021         | 1.022 | 1.019 | 1.018 | 1.016 | 1.019 | 1.021 | 1.023 | 1.023 | 1.021 | 1.024 | 1.024 | 1.022 | 1.020 | 1.020 | 1.017 |       |       |       |       |       |
| 72/69  | 1.022         | 1.018 | 1.016 | 1.017 | 1.018 | 1.016 | 1.021 | 1.021 | 1.022 | 1.022 | 1.023 | 1.021 | 1.020 | 1.019 | 1.016 | 1.015 |       |       |       |       |       |
| 75/72  | 1.017         | 1.016 | 1.014 | 1.015 | 1.015 | 1.014 | 1.018 | 1.020 | 1.019 | 1.019 | 1.018 | 1.018 | 1.018 | 1.015 | 1.015 | 1.013 |       |       |       |       |       |
| 78/75  | 1.018         | 1.015 | 1.014 | 1.015 | 1.016 | 1.015 | 1.016 | 1.018 | 1.017 | 1.022 | 1.019 | 1.018 | 1.017 | 1.016 | 1.015 |       |       |       |       |       |       |
| 81/78  | 1.015         | 1.014 | 1.013 | 1.014 | 1.013 | 1.014 | 1.018 | 1.018 | 1.015 | 1.019 | 1.018 | 1.015 | 1.015 | 1.013 | 1.012 |       |       |       |       |       |       |
| 84/81  | 1.013         | 1.012 | 1.013 | 1.012 | 1.012 | 1.013 | 1.016 | 1.016 | 1.015 | 1.018 | 1.015 | 1.015 | 1.015 | 1.013 | 1.013 |       |       |       |       |       |       |
| 87/84  | 1.013         | 1.011 | 1.010 | 1.012 | 1.012 | 1.012 | 1.014 | 1.013 | 1.015 | 1.017 | 1.013 | 1.013 | 1.011 | 1.012 | 1.010 |       |       |       |       |       |       |
| 90/87  | 1.013         | 1.012 | 1.011 | 1.013 | 1.012 | 1.013 | 1.015 | 1.013 | 1.015 | 1.013 | 1.013 | 1.012 | 1.011 | 1.012 |       |       |       |       |       |       |       |
| 93/90  | 1.011         | 1.010 | 1.011 | 1.012 | 1.011 | 1.013 | 1.013 | 1.012 | 1.014 | 1.014 | 1.013 | 1.011 | 1.010 | 1.009 |       |       |       |       |       |       |       |
| 96/93  | 1.010         | 1.010 | 1.008 | 1.010 | 1.010 | 1.009 | 1.013 | 1.015 | 1.016 | 1.011 | 1.012 | 1.010 | 1.009 | 1.009 |       |       |       |       |       |       |       |

Source: WCIRB accident year experience calls

\* Paid medical loss development factors include the paid cost of medical cost containment programs for accident years 2011 and prior.

Reported Indemnity Claim Count Development

| Accident        | Development |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
|-----------------|-------------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|
| Year            | 3-15        | 15-27 | 27-39 | 39-51 | 51-63 | 63-75 | 75-87 | 87-99 | 99-111 | 111-123 | 123-135 | 135-147 | 147-159 | 159-171 | 171-183 | 183-195 |
| 1994            |             |       |       |       |       |       |       |       |        |         |         |         |         |         |         | 1.000   |
| 1995            |             |       |       |       |       |       |       |       |        |         |         |         |         |         | 1.001   | 1.001   |
| 1996            |             |       |       |       |       |       |       |       |        |         |         |         |         | 1.000   | 1.000   | 1.000   |
| 1997            |             |       |       |       |       |       |       |       |        |         |         |         | 1.000   | 1.000   | 1.000   | 1.000   |
| 1998            |             |       |       |       |       |       |       |       |        |         |         | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| 1999            |             |       |       |       |       |       |       |       |        |         | 1.000   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   |
| 2000            |             |       |       |       |       |       |       |       |        | 1.000   | 1.000   | 1.000   | 1.001   | 1.001   | 1.000   | 1.000   |
| 2001            |             |       |       |       |       |       |       |       | 0.999  | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| 2002            |             |       |       |       |       |       |       | 0.999 | 1.000  | 0.999   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| 2003            |             |       |       |       |       |       | 0.999 | 0.999 | 0.999  | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| 2004            |             |       |       |       |       | 0.999 | 0.999 | 0.999 | 1.000  | 0.999   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |         |
| 2005            |             |       |       |       | 1.001 | 1.000 | 1.001 | 1.000 | 1.000  | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |         |         |
| 2006            |             |       |       | 1.004 | 1.002 | 1.001 | 1.001 | 1.000 | 1.001  | 1.001   | 1.000   | 1.000   | 1.000   |         |         |         |
| 2007            |             |       | 1.011 | 1.006 | 1.003 | 1.002 | 1.000 | 1.000 | 1.001  | 1.000   | 1.000   | 1.000   |         |         |         |         |
| 2008            |             | 1.059 | 1.017 | 1.009 | 1.004 | 1.003 | 1.001 | 1.001 | 1.001  | 1.000   | 1.001   |         |         |         |         |         |
| 2009            | 6.968       | 1.080 | 1.022 | 1.008 | 1.005 | 1.003 | 1.002 | 1.002 | 1.000  | 1.001   |         |         |         |         |         |         |
| 2010            | 7.382       | 1.089 | 1.021 | 1.010 | 1.006 | 1.003 | 1.002 | 1.001 | 1.000  |         |         |         |         |         |         |         |
| 2011            | 7.502       | 1.100 | 1.026 | 1.011 | 1.005 | 1.003 | 1.002 | 1.001 |        |         |         |         |         |         |         |         |
| 2012            | 7.678       | 1.120 | 1.026 | 1.009 | 1.006 | 1.003 | 1.001 |       |        |         |         |         |         |         |         |         |
| 2013            | 8.155       | 1.101 | 1.024 | 1.009 | 1.005 | 1.002 |       |       |        |         |         |         |         |         |         |         |
| 2014            | 7.706       | 1.105 | 1.023 | 1.010 | 1.005 |       |       |       |        |         |         |         |         |         |         |         |
| 2015            | 8.019       | 1.106 | 1.020 | 1.006 |       |       |       |       |        |         |         |         |         |         |         |         |
| 2016            | 7.723       | 1.110 | 1.023 |       |       |       |       |       |        |         |         |         |         |         |         |         |
| 2017            | 7.812       | 1.098 |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
| 2018            | 7.846       |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
|                 | Latest Year |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
| Age-to-Age      |             |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
| 7.846           | 1.098       | 1.023 | 1.006 | 1.005 | 1.002 | 1.001 | 1.001 | 1.000 | 1.001  | 1.001   | 1.001   | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| Age-to-Ultimate |             |       |       |       |       |       |       |       |        |         |         |         |         |         |         |         |
| 8.978           | 1.144       | 1.042 | 1.019 | 1.013 | 1.008 | 1.006 | 1.005 | 1.004 | 1.004  | 1.003   | 1.002   | 1.002   | 1.002   | 1.002   | 1.002   | 1.002   |

Quarterly Reported Indemnity Claim Count Development Factors

| Accident | Development |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Year     | 3-6         | 6-9   | 9-12  | 12-15 | 15-18 | 18-21 | 21-24 | 24-27 | 27-30 | 30-33 | 33-36 | 36-39 | 39-42 | 42-45 | 45-48 |
| 2008     | 2.539       | 1.651 | 1.336 | 1.093 | 1.025 | 1.015 | 1.010 | 1.008 | 1.006 | 1.004 | 1.003 | 1.003 | 1.002 | 1.003 | 1.002 |
| 2009     | 2.681       | 1.683 | 1.382 | 1.109 | 1.036 | 1.021 | 1.012 | 1.009 | 1.007 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 1.002 |
| 2010     | 2.688       | 1.708 | 1.407 | 1.124 | 1.037 | 1.021 | 1.015 | 1.011 | 1.008 | 1.005 | 1.005 | 1.003 | 1.004 | 1.003 | 1.001 |
| 2011     | 2.691       | 1.738 | 1.424 | 1.123 | 1.041 | 1.026 | 1.018 | 1.010 | 1.010 | 1.006 | 1.005 | 1.004 | 1.004 | 1.003 | 1.002 |
| 2012     | 2.749       | 1.727 | 1.420 | 1.123 | 1.050 | 1.028 | 1.018 | 1.012 | 1.010 | 1.007 | 1.004 | 1.004 | 1.003 | 1.003 | 1.002 |
| 2013     | 2.821       | 1.739 | 1.421 | 1.138 | 1.045 | 1.027 | 1.016 | 1.010 | 1.009 | 1.007 | 1.004 | 1.004 | 1.003 | 1.002 | 1.002 |
| 2014     | 2.778       | 1.723 | 1.421 | 1.130 | 1.045 | 1.025 | 1.017 | 1.012 | 1.010 | 1.005 | 1.004 | 1.004 | 1.003 | 1.002 | 1.002 |
| 2015     | 2.794       | 1.744 | 1.414 | 1.136 | 1.047 | 1.024 | 1.016 | 1.013 | 1.008 | 1.005 | 1.003 | 1.003 | 1.002 | 1.001 | 1.001 |
| 2016     | 2.731       | 1.720 | 1.412 | 1.141 | 1.046 | 1.027 | 1.017 | 1.013 | 1.010 | 1.005 | 1.004 | 1.003 |       |       |       |
| 2017     | 2.824       | 1.691 | 1.414 | 1.130 | 1.043 | 1.025 | 1.014 | 1.009 |       |       |       |       |       |       |       |
| 2018     | 2.812       | 1.736 | 1.416 | 1.136 |       |       |       |       |       |       |       |       |       |       |       |

Reported Indemnity Claim Settlement Ratios

| Accident | Evaluated as of (in months): |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Year     | 3                            | 15    | 27    | 39    | 51    | 63    | 75    | 87    | 99    | 111   | 123   | 135   | 147   | 159   | 171   | 183   | 195   |
| 1994     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 98.8% |
| 1995     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 98.4% | 98.6% |
| 1996     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       | 98.1% | 98.3% | 98.5% |
| 1997     |                              |       |       |       |       |       |       |       |       |       |       |       |       | 97.5% | 97.8% | 98.0% | 98.2% |
| 1998     |                              |       |       |       |       |       |       |       |       |       |       |       | 96.8% | 97.2% | 97.5% | 97.8% | 98.1% |
| 1999     |                              |       |       |       |       |       |       |       |       |       |       | 96.2% | 96.7% | 97.1% | 97.4% | 97.8% | 98.0% |
| 2000     |                              |       |       |       |       |       |       |       |       |       | 94.9% | 95.7% | 96.3% | 96.8% | 97.3% | 97.6% | 97.9% |
| 2001     |                              |       |       |       |       |       |       |       |       | 92.6% | 93.8% | 94.7% | 95.4% | 96.2% | 96.7% | 97.1% | 97.5% |
| 2002     |                              |       |       |       |       |       |       |       | 91.2% | 92.7% | 94.0% | 95.0% | 96.0% | 96.5% | 97.1% | 97.5% | 97.8% |
| 2003     |                              |       |       |       |       |       |       | 88.9% | 91.0% | 92.7% | 94.1% | 95.4% | 96.0% | 96.6% | 97.2% | 97.6% | 98.0% |
| 2004     |                              |       |       |       |       |       | 86.0% | 88.8% | 91.1% | 92.8% | 94.6% | 95.6% | 96.3% | 97.0% | 97.5% | 97.9% |       |
| 2005     |                              |       |       |       |       | 82.3% | 86.3% | 89.1% | 91.3% | 93.5% | 94.8% | 95.8% | 96.6% | 97.2% | 97.7% |       |       |
| 2006     |                              |       |       |       | 76.0% | 82.2% | 86.0% | 89.0% | 91.7% | 93.4% | 94.7% | 95.8% | 96.6% | 97.3% |       |       |       |
| 2007     |                              |       |       | 66.2% | 75.4% | 81.3% | 85.5% | 89.5% | 91.9% | 93.8% | 95.2% | 96.2% | 97.0% |       |       |       |       |
| 2008     |                              |       | 51.4% | 64.5% | 73.9% | 80.5% | 86.0% | 89.6% | 92.3% | 94.1% | 95.4% | 96.5% |       |       |       |       |       |
| 2009     |                              | 33.2% | 49.6% | 62.7% | 72.7% | 80.5% | 85.7% | 89.7% | 92.3% | 94.2% | 95.7% |       |       |       |       |       |       |
| 2010     | 5.6%                         | 33.6% | 50.2% | 63.5% | 74.7% | 82.0% | 87.3% | 91.0% | 93.4% | 95.2% |       |       |       |       |       |       |       |
| 2011     | 7.2%                         | 34.0% | 50.7% | 65.3% | 76.0% | 83.4% | 88.4% | 91.8% | 94.2% |       |       |       |       |       |       |       |       |
| 2012     | 7.2%                         | 34.0% | 51.8% | 66.7% | 77.4% | 84.6% | 89.5% | 92.8% |       |       |       |       |       |       |       |       |       |
| 2013     | 8.4%                         | 33.4% | 52.8% | 68.1% | 79.1% | 86.4% | 90.9% |       |       |       |       |       |       |       |       |       |       |
| 2014     | 6.6%                         | 33.8% | 54.0% | 69.5% | 80.7% | 87.6% |       |       |       |       |       |       |       |       |       |       |       |
| 2015     | 7.5%                         | 34.5% | 55.7% | 72.1% | 83.0% |       |       |       |       |       |       |       |       |       |       |       |       |
| 2016     | 7.3%                         | 36.3% | 58.4% | 74.8% |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2017     | 7.4%                         | 38.7% | 61.4% |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2018     | 8.5%                         | 39.4% |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2019     | 8.7%                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |



Estimated Ultimate Indemnity Claim Settlement Ratios

| Accident | Evaluated as of (in months): |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Year     | 3                            | 15    | 27    | 39    | 51    | 63    | 75    | 87    | 99    | 111   | 123   | 135   | 147   | 159   | 171   | 183   | 195   |
| 1994     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 98.5% |
| 1995     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 98.1% | 98.3% |
| 1996     |                              |       |       |       |       |       |       |       |       |       |       |       |       |       | 97.8% | 98.0% | 98.2% |
| 1997     |                              |       |       |       |       |       |       |       |       |       |       |       |       | 97.2% | 97.5% | 97.7% | 98.0% |
| 1998     |                              |       |       |       |       |       |       |       |       |       |       |       | 96.5% | 96.9% | 97.3% | 97.6% | 97.9% |
| 1999     |                              |       |       |       |       |       |       |       |       |       |       | 95.9% | 96.4% | 96.8% | 97.1% | 97.6% | 97.8% |
| 2000     |                              |       |       |       |       |       |       |       |       |       | 94.5% | 95.3% | 95.9% | 96.5% | 97.1% | 97.4% | 97.7% |
| 2001     |                              |       |       |       |       |       |       |       |       | 92.3% | 93.5% | 94.4% | 95.2% | 95.9% | 96.4% | 96.9% | 97.2% |
| 2002     |                              |       |       |       |       |       |       |       | 91.1% | 92.6% | 93.8% | 94.8% | 95.8% | 96.4% | 96.9% | 97.3% | 97.6% |
| 2003     |                              |       |       |       |       |       |       | 89.0% | 91.0% | 92.6% | 93.9% | 95.2% | 95.8% | 96.5% | 97.0% | 97.4% | 97.8% |
| 2004     |                              |       |       |       |       |       | 86.0% | 88.9% | 91.0% | 92.7% | 94.4% | 95.4% | 96.2% | 96.8% | 97.3% | 97.7% |       |
| 2005     |                              |       |       |       |       | 82.0% | 86.0% | 89.0% | 91.1% | 93.3% | 94.6% | 95.7% | 96.4% | 97.0% | 97.5% |       |       |
| 2006     |                              |       |       |       | 75.5% | 81.7% | 85.7% | 88.6% | 91.4% | 93.2% | 94.5% | 95.7% | 96.4% | 97.1% |       |       |       |
| 2007     |                              |       |       | 65.2% | 74.6% | 80.7% | 85.1% | 89.1% | 91.5% | 93.5% | 94.9% | 96.0% | 96.8% |       |       |       |       |
| 2008     |                              |       | 49.4% | 63.1% | 72.8% | 79.7% | 85.4% | 89.1% | 91.9% | 93.8% | 95.1% | 96.2% |       |       |       |       |       |
| 2009     |                              | 29.4% | 47.3% | 61.3% | 71.6% | 79.7% | 85.1% | 89.2% | 92.0% | 93.9% | 95.4% |       |       |       |       |       |       |
| 2010     | 0.7%                         | 29.5% | 47.9% | 62.0% | 73.6% | 81.2% | 86.7% | 90.5% | 93.1% | 94.8% |       |       |       |       |       |       |       |
| 2011     | 0.8%                         | 29.4% | 48.2% | 63.7% | 74.9% | 82.6% | 87.8% | 91.3% | 93.8% |       |       |       |       |       |       |       |       |
| 2012     | 0.8%                         | 28.9% | 49.3% | 65.1% | 76.3% | 83.8% | 89.0% | 92.4% |       |       |       |       |       |       |       |       |       |
| 2013     | 0.9%                         | 29.0% | 50.5% | 66.6% | 78.1% | 85.7% | 90.3% |       |       |       |       |       |       |       |       |       |       |
| 2014     | 0.7%                         | 29.3% | 51.6% | 67.9% | 79.7% | 86.9% |       |       |       |       |       |       |       |       |       |       |       |
| 2015     | 0.8%                         | 30.0% | 53.6% | 70.7% | 81.9% |       |       |       |       |       |       |       |       |       |       |       |       |
| 2016     | 0.8%                         | 31.4% | 56.1% | 73.4% |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2017     | 0.8%                         | 33.8% | 58.9% |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2018     | 1.0%                         | 34.5% |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2019     | 1.0%                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

Quarterly Ultimate Settlement Ratios

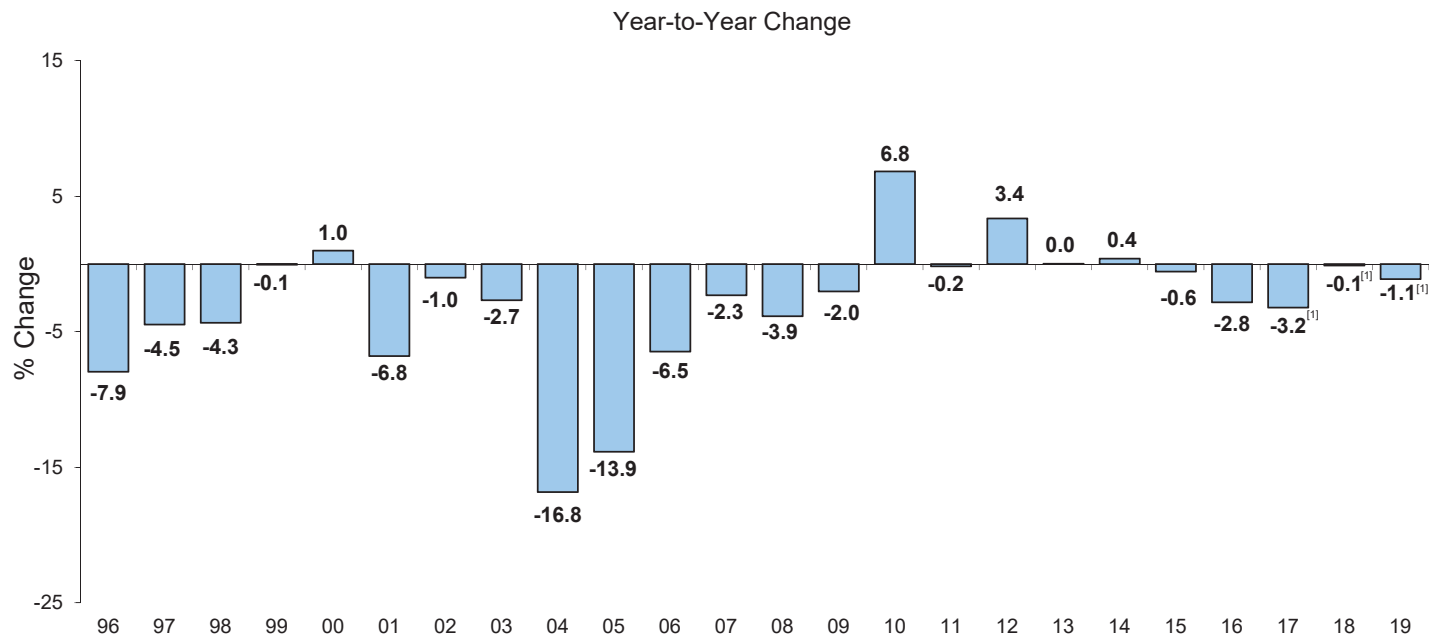
| Accident<br>Year | Evaluated as of (in months): |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |
|------------------|------------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  | <u>3</u>                     | <u>6</u> | <u>9</u> | <u>12</u> | <u>15</u> | <u>18</u> | <u>21</u> | <u>24</u> | <u>27</u> | <u>30</u> | <u>33</u> | <u>36</u> | <u>39</u> | <u>42</u> | <u>45</u> | <u>48</u> |
| 2010             | 0.6%                         | 4.7%     | 11.9%    | 21.1%     | 29.9%     | 35.9%     | 40.2%     | 44.5%     | 48.3%     | 52.2%     | 55.8%     | 59.3%     | 62.5%     | 65.9%     | 68.9%     | 71.8%     |
| 2011             | 0.8%                         | 5.1%     | 12.0%    | 21.3%     | 29.7%     | 35.8%     | 40.3%     | 44.7%     | 48.6%     | 52.9%     | 56.8%     | 60.8%     | 64.1%     | 67.1%     | 70.2%     | 72.9%     |
| 2012             | 0.8%                         | 5.1%     | 12.1%    | 21.2%     | 29.5%     | 35.9%     | 40.7%     | 45.6%     | 49.7%     | 54.1%     | 58.3%     | 62.2%     | 65.5%     | 68.7%     | 71.7%     | 74.4%     |
| 2013             | 0.9%                         | 5.1%     | 11.8%    | 20.9%     | 29.4%     | 36.0%     | 41.4%     | 46.4%     | 51.0%     | 55.5%     | 59.6%     | 63.5%     | 67.1%     | 70.5%     | 73.4%     | 76.1%     |
| 2014             | 0.8%                         | 4.8%     | 11.7%    | 20.8%     | 29.6%     | 36.3%     | 42.1%     | 47.2%     | 52.0%     | 56.5%     | 60.7%     | 64.8%     | 68.1%     | 71.7%     | 74.6%     | 77.4%     |
| 2015             | 0.8%                         | 4.8%     | 12.2%    | 21.2%     | 30.4%     | 37.8%     | 43.4%     | 48.8%     | 53.9%     | 59.0%     | 63.3%     | 67.4%     | 71.0%     | 74.4%     | 77.3%     | 79.9%     |
| 2016             | 0.8%                         | 5.1%     | 12.3%    | 21.9%     | 31.7%     | 39.5%     | 45.4%     | 51.3%     | 56.3%     | 61.5%     | 65.8%     | 70.0%     | 73.7%     |           |           |           |
| 2017             | 0.9%                         | 5.6%     | 13.5%    | 24.2%     | 34.1%     | 42.0%     | 48.2%     | 54.1%     | 59.1%     |           |           |           |           |           |           |           |
| 2018             | 0.9%                         | 5.8%     | 13.8%    | 24.6%     | 34.7%     |           |           |           |           |           |           |           |           |           |           |           |
| 2019             | 1.0%                         |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |

| Accident | Quarterly Incremental Change |            |             |              |              |              |              |              |              |              |              |              |              |              |              |
|----------|------------------------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Year     | <u>3-6</u>                   | <u>6-9</u> | <u>9-12</u> | <u>12-15</u> | <u>15-18</u> | <u>18-21</u> | <u>21-24</u> | <u>24-27</u> | <u>27-30</u> | <u>30-33</u> | <u>33-36</u> | <u>36-39</u> | <u>39-42</u> | <u>42-45</u> | <u>45-48</u> |
| 2010     | 4.1%                         | 7.2%       | 9.2%        | 8.8%         | 6.0%         | 4.3%         | 4.3%         | 3.8%         | 3.9%         | 3.5%         | 3.5%         | 3.2%         | 3.4%         | 3.0%         | 2.9%         |
| 2011     | 4.3%                         | 6.9%       | 9.3%        | 8.4%         | 6.1%         | 4.5%         | 4.3%         | 3.9%         | 4.4%         | 3.9%         | 4.0%         | 3.3%         | 3.1%         | 3.0%         | 2.7%         |
| 2012     | 4.2%                         | 7.1%       | 9.1%        | 8.3%         | 6.4%         | 4.8%         | 4.9%         | 4.1%         | 4.3%         | 4.2%         | 3.9%         | 3.4%         | 3.2%         | 3.0%         | 2.7%         |
| 2013     | 4.2%                         | 6.7%       | 9.1%        | 8.4%         | 6.6%         | 5.4%         | 5.0%         | 4.5%         | 4.5%         | 4.1%         | 3.9%         | 3.6%         | 3.4%         | 2.9%         | 2.7%         |
| 2014     | 4.0%                         | 6.9%       | 9.0%        | 8.8%         | 6.7%         | 5.8%         | 5.1%         | 4.8%         | 4.5%         | 4.2%         | 4.0%         | 3.4%         | 3.5%         | 2.9%         | 2.8%         |
| 2015     | 4.0%                         | 7.4%       | 9.0%        | 9.2%         | 7.4%         | 5.7%         | 5.3%         | 5.1%         | 5.1%         | 4.4%         | 4.1%         | 3.6%         | 3.4%         | 2.9%         | 2.6%         |
| 2016     | 4.2%                         | 7.2%       | 9.6%        | 9.8%         | 7.8%         | 6.0%         | 5.8%         | 5.0%         | 5.2%         | 4.3%         | 4.3%         | 3.6%         |              |              |              |
| 2017     | 4.8%                         | 7.8%       | 10.7%       | 10.0%        | 7.9%         | 6.2%         | 5.9%         | 5.0%         |              |              |              |              |              |              |              |
| 2018     | 4.9%                         | 8.0%       | 10.7%       | 10.1%        |              |              |              |              |              |              |              |              |              |              |              |

Notes All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 86% to 100% of the total California workers' compensation insured market measured using 2018 earned premium levels).

Source: WCIRB quarterly calls for experience

# **California Workers' Compensation Estimated Indemnity Claim Frequency by Accident Year**



<sup>[1]</sup> The 2016-2017 estimate is based on partial year unit statistical data. The 2017-2018 and 2018-2019 estimates are based on comparison of claim counts based on WCIRB accident year experience as of March 31, 2019 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

Item AC19-06-02

1/1/2020 Regulatory Filing – Experience Rating Plan Values

An analysis of the indicated policy year 2020 experience rating off-balance factor and the factors used to generate proposed policy year 2020 expected loss rates will be presented at the meeting.

## Item AC19-06-03

### Impact of Pharmaceutical Cost Reductions on Loss Development

At the August 1, 2018 meeting, the Committee noted that, since the pharmaceutical share of medical payments varies significantly by maturity level, the sharp reductions in pharmaceutical costs since 2012 could significantly affect medical loss development projections. As a result, the Committee recommended that the WCIRB undertake an analysis of the impact of the recent reduction in pharmaceutical costs on medical loss development. Staff's initial analysis of the issue is summarized below.

#### *Distribution of Medical Services by Development Year*

Workers' compensation pharmaceutical costs have decreased significantly over the last several years. While Senate Bill No. 863 (SB 863) has resulted in a reduction in the utilization of most medical services, other factors may have also contributed to the sharp decrease in pharmaceutical costs such as greater attention to prescribing patterns resulting from the recent opioid crisis, Federal Government fee schedule changes impacting the California pharmaceutical fee schedule, anti-fraud efforts and the new drug formulary.

For each medical service category and development period, Exhibit 1.1 shows the proportion of the total medical paid in that development period attributable to that service based on WCIRB medical transaction data. Although the decrease in pharmaceutical costs is fairly consistent across development periods, pharmaceutical costs represent a relatively low share of medical payments in earlier periods. However, pharmaceutical costs represented approximately one-third of total medical payments made in the 11-to-20 development years in 2013, but only 13% for the same period in 2018. Exhibit 1.2 shows that the proportion of total medical paid for medical services excluding pharmaceutical payments is more consistent over time, which suggests that the decrease in the pharmaceutical proportion of total medical paid is not a result of change in the mix of medical services.

The change in pharmaceutical costs is significant and varies significantly by development period. As a result, if not adjusted for, the paid development factors based on historical accident years will be distorted as the denominator of the age-to-age factor represents a greater share of pharmaceutical costs than is emerging in more recent calendar years, particularly for more mature periods.

#### *Adjusting Historical Payments to Current Pharmaceutical Cost Level*

Staff explored alternative approaches to adjust paid medical loss development for the recent decreases in pharmaceutical payments. During other periods of reforms or other system changes significantly distorting paid development patterns, the WCIRB has in the past corrected for these distortions by adjusting historical paid losses to the current level and computing age-to-age factors based on the adjusted amounts. The application of this approach to adjust for the recent decreases in pharmaceutical costs is shown in Exhibits 2 and 3.

Exhibit 2.1, Item I shows the pharmaceutical cost proportion of total medical paid for calendar years 2013 to 2018 by development period and in total for the calendar year based on WCIRB medical transaction data. Exhibit 2.1, Item II shows the difference in the proportion by development period compared to that for calendar year 2018. For example, the total share of pharmaceutical payments for calendar year 2013 at 48 months was 10.6% higher than those for calendar year 2018 at 48 months (4.1% subtracted from 14.7%). Although the proportion of pharmaceutical payments continued to decline in 2018, the decline was much smaller compared to prior calendar years. In addition, pharmaceutical costs are in total a much lower share of payments in 2018. As a result, staff selected 2018 as the baseline "current level" for this approach.

The differences in the proportions shown in Exhibit 2.1, Item II increase gradually by maturity up through approximately 96 months. After 96 months, the differences are somewhat volatile in large part due to the relative sparsity of data. As a result, staff computed a weighted average of the differences after 96

months to use as the selected adjustment for maturities greater than 96 months. The selected differences by calendar year and maturity are shown in Exhibit 2.1, Item III. These differences form the basis for the adjustment to be applied to medical payments from these calendar years. For example, medical payments made in 2013 on losses at age 48 months will be adjusted by 0.894 (100% - 10.6%) to bring them to a 2018 pharmaceutical cost level for loss development purposes.

The process described in Items I through III of Exhibit 2.1 contemplates calendar years 2013 and forward—periods for which the WCIRB has collected medical transaction data. To adjust payments made in calendar years 2012 and prior, staff assumed the 2013 pharmaceutical payment pattern approximated that for the earlier periods. Although 2013 represented somewhat of a peak in total medical cost levels, staff reviewed calendar year paid costs to pharmacies based on aggregate financial data calls and found that the proportion of pharmacy payments were fairly consistent from 2005 through 2013.<sup>1</sup> Exhibit 2.2 shows the adjustment for earlier calendar years based on comparing the cumulative proportion of pharmaceutical costs for calendar year 2013 with calendar year 2018. For example, to adjust accident year 2010 losses paid in 2010 to 2012 (through 36 months) a factor of 0.931 (100% - 6.9%) is used (see Column C of Exhibit 2.2).

The approach to correct for the distortion in paid medical age-to-age factors is similar to the WCIRB's methodology used to adjust for prior reform periods (such as the 2002 through 2004 reforms and SB 863). Pre-2018 medical payments are adjusted to the 2018 level by calendar year and development period based on the information shown in Exhibit 2. Once adjusted, the paid medical age-to-age factors are recomputed on an adjusted basis. The impact of the adjustment on age-to-age and cumulative paid medical factors as of December 31, 2018 is shown in Exhibit 3. Since pharmaceutical costs have represented a significant proportion of later period development, the impact is significant on the cumulative development factor for more recent accident years.

In developing ultimate medical loss ratios for pure premium ratemaking, as with the methodology used in prior reform periods, the historical medical paid-to-date ratios should also be adjusted to the 2018 pharmaceutical cost level to ensure that the adjusted age-to-age factors are applied to the appropriate basis. Staff recommends adjusting the medical paid-to-date ratios in a similar manner to how the age-to-age factors are adjusted. In addition, staff plans to review the medical on-level factors once the adjustment is finalized to ensure the impact of the pharmaceutical cost reductions are not double counted in the on-level factors.

#### *Other Approaches Reviewed*

The approach described above adjusts the historical medical payments to a 2018 pharmaceutical cost level by calendar year and development period. Prior approaches to adjust for the impact of reforms in loss development have only been based on the full calendar year. Staff reviewed a similar approach to adjust for the recent pharmaceutical cost declines based only on a single factor for the calendar year pharmaceutical payments as a sensitivity test. Although the impact on each age-to-age factor was different under this approach (which doesn't reflect that pharmaceutical costs differ by maturity), the overall impact on the cumulative paid medical factors for recent accident years was similar.

Staff also reviewed incremental loss development approaches, which are not distorted by paid losses made in older calendar years since cumulative paid losses are not used. Overall, these approaches produced adjustments of similar magnitudes to staff's recommended approach. However, incremental loss development methods continue to show significant volatility in the incremental factors, which can be distorted by large settlement payments and general volatility in payment patterns for more mature periods. Staff is continuing to review the viability of incremental methods since they do have the advantage of not relying on cumulative payments made prior to reforms or other significant payment pattern shifts.

---

<sup>1</sup> See *Report on 2013 California Workers' Compensation Losses and Expenses*, WCIRB, June 26, 2014.

Share of Total Medical Services Paid by Age and Service Type

| Development<br>Age in Years | Pharmaceuticals |       |       |       |       |       | Physician Services - All |       |       |       |       |       |
|-----------------------------|-----------------|-------|-------|-------|-------|-------|--------------------------|-------|-------|-------|-------|-------|
|                             | 2013            | 2014  | 2015  | 2016  | 2017  | 2018  | 2013                     | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1                           | 5.8%            | 5.1%  | 4.1%  | 3.0%  | 2.3%  | 1.3%  | 62.9%                    | 64.7% | 63.3% | 63.4% | 61.9% | 63.3% |
| 2                           | 9.0%            | 8.8%  | 6.6%  | 4.1%  | 3.2%  | 1.8%  | 55.8%                    | 54.1% | 53.4% | 51.8% | 52.8% | 52.8% |
| 3                           | 12.3%           | 11.9% | 9.6%  | 6.2%  | 5.0%  | 3.0%  | 43.1%                    | 40.0% | 39.2% | 38.0% | 40.3% | 42.4% |
| 4 to 5                      | 15.3%           | 13.7% | 10.8% | 7.6%  | 6.1%  | 4.4%  | 35.6%                    | 31.7% | 30.5% | 29.5% | 31.5% | 33.1% |
| 6 to 10                     | 24.1%           | 20.4% | 16.4% | 11.9% | 9.4%  | 6.7%  | 29.0%                    | 26.5% | 25.5% | 25.6% | 26.4% | 27.2% |
| 11 to 20                    | 33.7%           | 30.6% | 25.9% | 19.1% | 15.1% | 12.9% | 22.7%                    | 21.9% | 22.5% | 25.0% | 24.7% | 25.7% |
| 21+                         | 36.4%           | 34.0% | 27.9% | 21.9% | 18.6% | 15.1% | 21.0%                    | 19.9% | 19.2% | 18.8% | 20.2% | 20.8% |
| All Years                   | 15.6%           | 14.0% | 11.1% | 7.6%  | 5.9%  | 4.1%  | 43.6%                    | 42.2% | 41.7% | 42.1% | 43.5% | 45.0% |

| Development<br>Age in Years | Physician Services: E&M, Physical Medicine, Acupuncture, Chiropractic |       |       |       |       |       | Physician Services: Anesthesia, Medicine, Radiology, Surgery, Other |       |       |       |       |       |
|-----------------------------|---|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|
|                             | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1                           | 36.0%   | 42.4% | 43.8% | 45.4% | 45.5% | 47.0% | 26.9%   | 22.3% | 19.5% | 18.0% | 16.4% | 16.3% |
| 2                           | 24.2%   | 27.0% | 30.0% | 30.8% | 32.3% | 33.2% | 31.6%   | 27.1% | 23.5% | 21.0% | 20.5% | 19.6% |
| 3                           | 15.3%   | 16.6% | 19.0% | 19.6% | 22.0% | 24.3% | 27.8%   | 23.4% | 20.3% | 18.3% | 18.3% | 18.1% |
| 4 to 5                      | 12.2%   | 12.3% | 13.7% | 14.4% | 16.4% | 18.3% | 23.4%   | 19.4% | 16.8% | 15.2% | 15.1% | 14.8% |
| 6 to 10                     | 10.0%   | 10.5% | 11.5% | 12.3% | 13.2% | 14.6% | 18.9%   | 16.1% | 13.9% | 13.3% | 13.2% | 12.7% |
| 11 to 20                    | 8.6%  | 9.5%  | 11.4% | 13.1% | 13.5% | 14.5% | 14.1%   | 12.5% | 11.0% | 11.8% | 11.2% | 11.2% |
| 21+                         | 8.1%  | 8.1%  | 8.9%  | 9.9%  | 11.2% | 11.5% | 12.9%   | 11.9% | 10.3% | 9.0%  | 9.0%  | 9.4%  |
|                             | 19.1%   | 21.4% | 23.5% | 25.2% | 27.1% | 29.0% | 24.5%   | 20.8% | 18.2% | 16.9% | 16.4% | 16.0% |

| Development<br>Age in Years | Hospital Services - Outpatient |       |       |       |       |       | Hospital Services - Inpatient |       |       |       |       |       |
|-----------------------------|--------------------------------|-------|-------|-------|-------|-------|-------------------------------|-------|-------|-------|-------|-------|
|                             | 2013                           | 2014  | 2015  | 2016  | 2017  | 2018  | 2013                          | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1                           | 9.8%                           | 9.6%  | 11.5% | 12.1% | 12.8% | 12.4% | 12.3%                         | 11.8% | 12.0% | 11.9% | 13.2% | 12.8% |
| 2                           | 10.4%                          | 9.7%  | 11.3% | 13.4% | 13.6% | 13.8% | 9.1%                          | 9.2%  | 9.3%  | 9.5%  | 9.3%  | 10.8% |
| 3                           | 8.0%                           | 7.4%  | 7.9%  | 10.4% | 11.1% | 10.1% | 8.6%                          | 7.4%  | 8.5%  | 7.8%  | 9.1%  | 8.6%  |
| 4 to 5                      | 7.4%                           | 6.8%  | 7.6%  | 7.9%  | 8.9%  | 8.8%  | 10.1%                         | 8.3%  | 8.7%  | 7.4%  | 8.0%  | 9.4%  |
| 6 to 10                     | 8.0%                           | 8.7%  | 9.0%  | 9.4%  | 8.8%  | 8.9%  | 10.5%                         | 8.6%  | 8.9%  | 8.4%  | 9.6%  | 10.0% |
| 11 to 20                    | 9.3%                           | 10.0% | 12.3% | 14.5% | 15.3% | 13.3% | 13.9%                         | 12.4% | 11.9% | 12.3% | 12.7% | 13.6% |
| 21+                         | 12.2%                          | 10.8% | 17.2% | 19.8% | 16.9% | 17.3% | 12.2%                         | 16.7% | 13.2% | 12.9% | 15.5% | 16.6% |
| All Years                   | 9.0%                           | 8.8%  | 10.2% | 11.5% | 12.0% | 11.7% | 10.7%                         | 9.8%  | 9.9%  | 9.6%  | 10.5% | 11.1% |

| Development<br>Age in Years | Medical Supplies and Equipment |       |       |       |       |       | Dental |      |      |      |      |      |
|-----------------------------|--------------------------------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
|                             | 2013                           | 2014  | 2015  | 2016  | 2017  | 2018  | 2013   | 2014 | 2015 | 2016 | 2017 | 2018 |
| 1                           | 7.6%                           | 6.9%  | 7.3%  | 7.3%  | 7.8%  | 8.2%  | 0.6%   | 0.8% | 0.6% | 0.7% | 0.6% | 0.7% |
| 2                           | 6.9%                           | 7.3%  | 7.5%  | 7.5%  | 8.9%  | 8.9%  | 0.6%   | 0.7% | 0.7% | 0.7% | 0.8% | 0.9% |
| 3                           | 6.5%                           | 6.1%  | 7.1%  | 6.9%  | 7.9%  | 9.6%  | 0.3%   | 0.4% | 0.3% | 0.7% | 0.5% | 0.7% |
| 4 to 5                      | 6.3%                           | 6.0%  | 6.3%  | 6.2%  | 7.2%  | 8.0%  | 0.2%   | 0.3% | 0.3% | 0.3% | 0.6% | 0.8% |
| 6 to 10                     | 9.2%                           | 8.1%  | 7.9%  | 8.3%  | 10.4% | 10.8% | 0.6%   | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% |
| 11 to 20                    | 12.0%                          | 12.8% | 13.4% | 13.6% | 18.0% | 19.1% | 0.8%   | 1.3% | 1.4% | 2.2% | 1.9% | 1.8% |
| 21+                         | 12.8%                          | 12.5% | 17.0% | 20.3% | 24.1% | 25.1% | 0.5%   | 1.5% | 1.4% | 1.3% | 1.4% | 1.2% |
| All Years                   | 8.0%                           | 7.7%  | 8.1%  | 8.2%  | 9.6%  | 10.3% | 0.5%   | 0.7% | 0.6% | 0.8% | 0.8% | 0.9% |

| Development<br>Age in Years | Med-Legal |       |       |       |       |       | Liens |       |       |       |       |       |
|-----------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                             | 2013      | 2014  | 2015  | 2016  | 2017  | 2018  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1                           | 0.8%      | 0.9%  | 1.1%  | 1.6%  | 1.3%  | 1.3%  | ---   | 0.1%  | 0.1%  | 0.1%  | 0.0%  | 0.0%  |
| 2                           | 6.9%      | 8.4%  | 9.6%  | 11.7% | 10.8% | 10.5% | ---   | 1.8%  | 1.6%  | 1.3%  | 0.6%  | 0.5%  |
| 3                           | 17.1%     | 19.1% | 18.9% | 22.0% | 20.3% | 20.9% | ---   | 7.6%  | 8.4%  | 8.1%  | 5.8%  | 4.7%  |
| 4 to 5                      | 18.3%     | 19.6% | 19.2% | 20.6% | 18.5% | 18.5% | ---   | 13.7% | 16.6% | 20.4% | 19.2% | 17.0% |
| 6 to 10                     | 13.1%     | 14.6% | 15.7% | 18.1% | 16.7% | 15.9% | ---   | 12.5% | 15.9% | 17.6% | 18.2% | 19.8% |
| 11 to 20                    | 5.6%      | 5.9%  | 6.8%  | 7.6%  | 6.9%  | 7.2%  | ---   | 5.0%  | 5.8%  | 5.9%  | 5.4%  | 6.4%  |
| 21+                         | 3.8%      | 3.3%  | 3.0%  | 2.8%  | 2.5%  | 2.5%  | ---   | 1.3%  | 1.0%  | 2.2%  | 0.8%  | 1.4%  |
| All Years                   | 9.6%      | 10.8% | 11.2% | 12.6% | 11.1% | 10.7% | ---   | 6.1%  | 7.2%  | 7.6%  | 6.6%  | 6.1%  |

Source: WCIRB medical transaction data

Share of Total Medical Services Paid by Age and Service Type - Excluding Pharmaceuticals

| Development  | Physician Services - All |       |       |       |       |       |
|--------------|--------------------------|-------|-------|-------|-------|-------|
| Age in Years | 2013                     | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 66.8%                    | 68.2% | 66.0% | 65.3% | 63.4% | 64.1% |
| 2            | 61.3%                    | 59.3% | 57.2% | 54.0% | 54.5% | 53.8% |
| 3            | 49.2%                    | 45.4% | 43.4% | 40.5% | 42.4% | 43.7% |
| 4 to 5       | 42.0%                    | 36.7% | 34.2% | 32.0% | 33.6% | 34.7% |
| 6 to 10      | 38.2%                    | 33.4% | 30.5% | 29.1% | 29.1% | 29.2% |
| 11 to 20     | 34.2%                    | 31.6% | 30.3% | 30.9% | 29.1% | 29.5% |
| 21+          | 33.1%                    | 30.2% | 26.7% | 24.1% | 24.8% | 24.5% |
| All Years    | 51.6%                    | 49.1% | 46.9% | 45.5% | 46.2% | 47.0% |

| Development  | Physician Services: E&M, Physical Medicine, Acupuncture, Chiropractic |       |       |       |       |       |
|--------------|---|-------|-------|-------|-------|-------|
| Age in Years | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 38.2%   | 44.6% | 45.7% | 46.8% | 46.6% | 47.6% |
| 2            | 26.6%   | 29.6% | 32.1% | 32.1% | 33.4% | 33.8% |
| 3            | 17.4%   | 18.8% | 21.0% | 20.9% | 23.2% | 25.0% |
| 4 to 5       | 14.4%   | 14.2% | 15.4% | 15.6% | 17.4% | 19.2% |
| 6 to 10      | 13.2%   | 13.1% | 13.8% | 14.0% | 14.5% | 15.6% |
| 11 to 20     | 13.0%   | 13.6% | 15.4% | 16.2% | 15.9% | 16.7% |
| 21+          | 12.8%   | 12.2% | 12.4% | 12.7% | 13.8% | 13.5% |
|              | 22.6%   | 24.9% | 26.5% | 27.3% | 28.8% | 30.2% |

| Development  | Physician Services: Anesthesia, Medicine, Radiology, Surgery, Other |       |       |       |       |       |
|--------------|---|-------|-------|-------|-------|-------|
| Age in Years | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 28.6%   | 23.5% | 20.3% | 18.5% | 16.8% | 16.5% |
| 2            | 34.7%   | 29.7% | 25.1% | 21.9% | 21.2% | 20.0% |
| 3            | 31.8%   | 26.6% | 22.4% | 19.5% | 19.2% | 18.7% |
| 4 to 5       | 27.6%   | 22.5% | 18.8% | 16.4% | 16.1% | 15.5% |
| 6 to 10      | 25.0%   | 20.2% | 16.7% | 15.1% | 14.6% | 13.6% |
| 11 to 20     | 21.2%   | 18.0% | 14.9% | 14.6% | 13.2% | 12.9% |
| 21+          | 20.3%   | 18.0% | 14.3% | 11.5% | 11.0% | 11.0% |
|              | 29.1%   | 24.2% | 20.4% | 18.3% | 17.4% | 16.7% |

| Development  | Hospital Services - Outpatient |       |       |       |       |       |
|--------------|--------------------------------|-------|-------|-------|-------|-------|
| Age in Years | 2013                           | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 10.4%                          | 10.1% | 12.0% | 12.4% | 13.1% | 12.5% |
| 2            | 11.4%                          | 10.7% | 12.1% | 14.0% | 14.0% | 14.1% |
| 3            | 9.2%                           | 8.4%  | 8.8%  | 11.0% | 11.7% | 10.4% |
| 4 to 5       | 8.7%                           | 7.8%  | 8.5%  | 8.5%  | 9.5%  | 9.2%  |
| 6 to 10      | 10.5%                          | 10.9% | 10.8% | 10.7% | 9.7%  | 9.6%  |
| 11 to 20     | 14.1%                          | 14.3% | 16.6% | 17.9% | 18.0% | 15.3% |
| 21+          | 19.1%                          | 16.4% | 23.9% | 25.3% | 20.8% | 20.3% |
| All Years    | 10.7%                          | 10.2% | 11.4% | 12.5% | 12.7% | 12.2% |

| Development  | Hospital Services - Inpatient |       |       |       |       |       |
|--------------|-------------------------------|-------|-------|-------|-------|-------|
| Age in Years | 2013                          | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 13.1%                         | 12.5% | 12.5% | 12.3% | 13.5% | 13.0% |
| 2            | 10.0%                         | 10.1% | 10.0% | 9.9%  | 9.6%  | 11.0% |
| 3            | 9.9%                          | 8.4%  | 9.4%  | 8.3%  | 9.6%  | 8.9%  |
| 4 to 5       | 11.9%                         | 9.6%  | 9.7%  | 8.0%  | 8.5%  | 9.9%  |
| 6 to 10      | 13.8%                         | 10.8% | 10.7% | 9.5%  | 10.6% | 10.7% |
| 11 to 20     | 21.0%                         | 17.9% | 16.1% | 15.2% | 14.9% | 15.6% |
| 21+          | 19.2%                         | 25.3% | 18.3% | 16.6% | 19.0% | 19.5% |
|              | 12.7%                         | 11.3% | 11.2% | 10.4% | 11.2% | 11.6% |

| Development  | Medical Supplies and Equipment |       |       |       |       |       |
|--------------|--------------------------------|-------|-------|-------|-------|-------|
| Age in Years | 2013                           | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 8.1%                           | 7.3%  | 7.6%  | 7.5%  | 8.0%  | 8.3%  |
| 2            | 7.6%                           | 8.0%  | 8.0%  | 7.8%  | 9.2%  | 9.1%  |
| 3            | 7.4%                           | 6.9%  | 7.9%  | 7.4%  | 8.3%  | 9.9%  |
| 4 to 5       | 7.4%                           | 7.0%  | 7.0%  | 6.8%  | 7.7%  | 8.4%  |
| 6 to 10      | 12.1%                          | 10.1% | 9.4%  | 9.5%  | 11.5% | 11.6% |
| 11 to 20     | 18.1%                          | 18.4% | 18.1% | 16.8% | 21.2% | 21.9% |
| 21+          | 20.2%                          | 18.9% | 23.6% | 26.0% | 29.6% | 29.5% |
| All Years    | 9.4%                           | 8.9%  | 9.1%  | 8.8%  | 10.2% | 10.7% |

| Development  | Dental |      |      |      |      |      |
|--------------|--------|------|------|------|------|------|
| Age in Years | 2013   | 2014 | 2015 | 2016 | 2017 | 2018 |
| 1            | 0.7%   | 0.9% | 0.6% | 0.7% | 0.6% | 0.7% |
| 2            | 0.7%   | 0.8% | 0.8% | 0.8% | 0.9% | 0.9% |
| 3            | 0.4%   | 0.4% | 0.4% | 0.7% | 0.6% | 0.7% |
| 4 to 5       | 0.3%   | 0.3% | 0.3% | 0.4% | 0.6% | 0.8% |
| 6 to 10      | 0.8%   | 0.8% | 0.7% | 0.7% | 0.7% | 0.6% |
| 11 to 20     | 1.2%   | 1.9% | 1.8% | 2.7% | 2.3% | 2.1% |
| 21+          | 0.8%   | 2.3% | 2.0% | 1.7% | 1.7% | 1.5% |
|              | 0.7%   | 0.8% | 0.7% | 0.8% | 0.8% | 0.9% |

| Development  | Med-Legal |       |       |       |       |       |
|--------------|-----------|-------|-------|-------|-------|-------|
| Age in Years | 2013      | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | 0.9%      | 1.0%  | 1.1%  | 1.6%  | 1.3%  | 1.3%  |
| 2            | 7.6%      | 9.2%  | 10.3% | 12.2% | 11.1% | 10.7% |
| 3            | 19.5%     | 21.7% | 20.9% | 23.4% | 21.4% | 21.5% |
| 4 to 5       | 21.7%     | 22.7% | 21.6% | 22.3% | 19.7% | 19.3% |
| 6 to 10      | 17.2%     | 18.4% | 18.7% | 20.5% | 18.4% | 17.0% |
| 11 to 20     | 8.4%      | 8.5%  | 9.2%  | 9.4%  | 8.2%  | 8.3%  |
| 21+          | 6.0%      | 5.0%  | 4.2%  | 3.6%  | 3.1%  | 3.0%  |
| All Years    | 11.4%     | 12.5% | 12.6% | 13.6% | 11.8% | 11.2% |

| Development  | Liens |       |       |       |       |       |
|--------------|-------|-------|-------|-------|-------|-------|
| Age in Years | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
| 1            | ---   | 0.1%  | 0.1%  | 0.1%  | 0.0%  | 0.0%  |
| 2            | ---   | 1.9%  | 1.7%  | 1.3%  | 0.6%  | 0.5%  |
| 3            | ---   | 8.7%  | 9.3%  | 8.6%  | 6.1%  | 4.9%  |
| 4 to 5       | ---   | 15.9% | 18.6% | 22.1% | 20.5% | 17.8% |
| 6 to 10      | ---   | 15.7% | 19.1% | 20.0% | 20.1% | 21.2% |
| 11 to 20     | ---   | 7.2%  | 7.8%  | 7.2%  | 6.3%  | 7.4%  |
| 21+          | ---   | 2.0%  | 1.4%  | 2.8%  | 0.9%  | 1.7%  |
|              | ---   | 7.1%  | 8.1%  | 8.3%  | 7.0%  | 6.4%  |

Source: WCIRB medical transaction data



### III. Percent Change in Medical Payments - Fix Percentage for 108-Months & Prior

[illegible]

IV-C-5  
WCIRB California®

**Pecent Change in Medical Payments for Calendar Years 2012 and Prior  
Compare to Calendar Year 2018**

| <u>Development Age</u> | (A)<br><u>CY2012&amp;Prior<sup>[1]</sup></u> | (B)<br><u>CY2018<sup>[2]</sup></u> | (C)<br><u>Change</u> |
|------------------------|--|------------------------------------|----------------------|
| 0-12                   | 5.8%   | 1.3%                               | 4.5%                 |
| 0 - 24                 | 7.5%   | 1.5%                               | 6.0%                 |
| 0 - 36                 | 8.7%   | 1.8%                               | 6.9%                 |
| 0 - 48                 | 9.5%   | 2.1%                               | 7.4%                 |
| 0 - 60                 | 10.1%  | 2.3%                               | 7.8%                 |
| 0 - 72                 | 10.7%  | 2.4%                               | 8.3%                 |
| 0 - 84                 | 11.3%  | 2.5%                               | 8.7%                 |
| 0 - 96                 | 11.7%  | 2.7%                               | 9.1%                 |
| 0 - 108                | 12.2%  | 2.8%                               | 9.3%                 |
| 0 - 120                | 12.6%  | 2.9%                               | 9.7%                 |
| 0 - 132                | 13.1%  | 3.0%                               | 10.0%                |
| 0 - 144                | 13.5%  | 3.1%                               | 10.4%                |
| 0 - 156                | 14.0%  | 3.2%                               | 10.7%                |
| 0 - 168                | 14.3%  | 3.4%                               | 10.9%                |
| 0 - 180                | 14.5%  | 3.5%                               | 11.1%                |
| 0 - 192                | 14.7%  | 3.5%                               | 11.2%                |
| 0 - 204                | 14.9%  | 3.6%                               | 11.3%                |
| 0 - 216                | 15.0%  | 3.7%                               | 11.3%                |
| 0 - 228                | 15.1%  | 3.8%                               | 11.3%                |
| 0 - 240                | 15.2%  | 3.8%                               | 11.3%                |
| 0 - 252                | 15.3%  | 3.9%                               | 11.4%                |
| 0 - 264                | 15.3%  | 3.9%                               | 11.4%                |
| 0 - 276                | 15.4%  | 4.0%                               | 11.4%                |
| 0 - 288                | 15.5%  | 4.0%                               | 11.5%                |
| 0 - 300                | 15.5%  | 4.0%                               | 11.5%                |
| 0 - 312                | 15.5%  | 4.0%                               | 11.5%                |
| 0 - 324                | 15.5%  | 4.1%                               | 11.5%                |
| 0 - 336                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 348                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 360                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 372                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 384                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 396                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 408                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 420                | 15.6%  | 4.1%                               | 11.5%                |
| 0 - 432                | 15.6%  | 4.1%                               | 11.5%                |

Notes:

<sup>[1]</sup> Based on calendar year 2013 from Exhibit 2.1, Item I.

<sup>[2]</sup> Based on calendar year 2018 from Exhibit 2.1, Item I.

Paid Medical Age-to-Age Development Factors - Adjusted for Impact of Decreasing Pharmaceutical Share

| Age-to-Age | 2018<br>Unadjusted <sup>[1]</sup> | 2018<br>Adjusted <sup>[2]</sup> | % Change | Age-to-360 | 2018<br>Unadjusted | 2018<br>Adjusted | % Change |
|------------|-----------------------------------|---------------------------------|----------|------------|--------------------|------------------|----------|
| 12-24      | 2.372                             | 2.386                           | 0.6%     | 12-360     | 6.808              | 7.180            | 5.5%     |
| 24-36      | 1.410                             | 1.416                           | 0.4%     | 24-360     | 2.870              | 3.009            | 4.9%     |
| 36-48      | 1.217                             | 1.223                           | 0.4%     | 36-360     | 2.036              | 2.125            | 4.4%     |
| 48-60      | 1.121                             | 1.125                           | 0.4%     | 48-360     | 1.672              | 1.738            | 4.0%     |
| 60-72      | 1.077                             | 1.081                           | 0.4%     | 60-360     | 1.492              | 1.545            | 3.5%     |
| 72-84      | 1.056                             | 1.060                           | 0.3%     | 72-360     | 1.385              | 1.429            | 3.1%     |
| 84-96      | 1.041                             | 1.044                           | 0.3%     | 84-360     | 1.311              | 1.348            | 2.8%     |
| 96-108     | 1.030                             | 1.032                           | 0.2%     | 96-360     | 1.259              | 1.291            | 2.5%     |
| 108-120    | 1.024                             | 1.026                           | 0.2%     | 108-360    | 1.223              | 1.250            | 2.2%     |
| 120-132    | 1.018                             | 1.020                           | 0.2%     | 120-360    | 1.195              | 1.219            | 2.0%     |
| 132-144    | 1.020                             | 1.022                           | 0.2%     | 132-360    | 1.173              | 1.195            | 1.9%     |
| 144-156    | 1.015                             | 1.016                           | 0.2%     | 144-360    | 1.151              | 1.170            | 1.7%     |
| 156-168    | 1.014                             | 1.016                           | 0.2%     | 156-360    | 1.134              | 1.151            | 1.5%     |
| 168-180    | 1.012                             | 1.013                           | 0.1%     | 168-360    | 1.118              | 1.133            | 1.4%     |
| 180-192    | 1.012                             | 1.013                           | 0.1%     | 180-360    | 1.105              | 1.119            | 1.2%     |
| 192-204    | 1.010                             | 1.011                           | 0.1%     | 192-360    | 1.092              | 1.104            | 1.1%     |
| 204-216    | 1.010                             | 1.012                           | 0.1%     | 204-360    | 1.082              | 1.093            | 1.0%     |
| 216-228    | 1.008                             | 1.009                           | 0.1%     | 216-360    | 1.071              | 1.080            | 0.9%     |
| 228-240    | 1.009                             | 1.010                           | 0.1%     | 228-360    | 1.062              | 1.070            | 0.8%     |
| 240-252    | 1.008                             | 1.009                           | 0.1%     | 240-360    | 1.053              | 1.060            | 0.7%     |
| 252-264    | 1.007                             | 1.008                           | 0.1%     | 252-360    | 1.045              | 1.050            | 0.6%     |
| 264-276    | 1.009                             | 1.010                           | 0.1%     | 264-360    | 1.037              | 1.042            | 0.5%     |
| 276-288    | 1.007                             | 1.008                           | 0.1%     | 276-360    | 1.028              | 1.032            | 0.4%     |
| 288-300    | 1.004                             | 1.005                           | 0.1%     | 288-360    | 1.022              | 1.024            | 0.3%     |
| 300-312    | 1.005                             | 1.005                           | 0.1%     | 300-360    | 1.017              | 1.020            | 0.2%     |
| 312-324    | 1.004                             | 1.004                           | 0.1%     | 312-360    | 1.013              | 1.014            | 0.2%     |
| 324-336    | 1.003                             | 1.004                           | 0.0%     | 324-360    | 1.009              | 1.010            | 0.1%     |
| 336-348    | 1.002                             | 1.002                           | 0.0%     | 336-360    | 1.006              | 1.006            | 0.1%     |
| 348-360    | 1.003                             | 1.004                           | 0.0%     | 348-360    | 1.003              | 1.004            | 0.0%     |

<sup>[1]</sup> Based on WCIRB quarterly experience calls.

<sup>[2]</sup> Paid medical loss development factors adjusted to the to the 2018 level with calendar years 2013 to 2017 payments reduced by the correspondent percentage shown on Exhibit 2, Item III, payments made prior to calendar year 2013 is reduced by the percentage shown on Exhibit 2.2, Column (C). For example, the adjusted 24-to-36 factor of 1.416 from accident year 2016 is calculated by :

$$\frac{\text{Payments}_{[\text{at } 36]} + \text{Payments}_{[\text{at } 24]} \times (1.0 - 1.3\%) + \text{Payments}_{[\text{at } 12]} \times (1.0 - 1.7\%)}{\text{Payments}_{[\text{at } 24]} \times (1.0 - 1.3\%) + \text{Payments}_{[\text{at } 12]} \times (1.0 - 1.7\%)}$$