



BEST'S REVIEW®

ISSUES & ANSWERS:

CAPTIVE SERVICES & DOMICILES

Domiciles, reinsurers, captive managers, brokers and service providers explain how they are helping risk managers and insurance organizations host their risk in a captive insurance organization.



Interviewed Inside:



Aaron Hillebrandt
Pinnacle Actuarial Resources Inc.

View past Issues & Answers sections at
www.bestreview.com/issuesanswersarchive.asp



Insurance is complicated.
 But it **doesn't** have to
 be difficult to understand.

$$E(C_{ij+1} | C_{ij}) = f_j C_{ij} \quad \sqrt{E(d_{ij})}$$

$$\text{Var}(Y) = E(\text{Var}(Y^2 | Z)) + E(E(Y | Z)^2) - (E(Y))^2$$

$$\text{Var}(f_j) = \sigma_j^2 / \sum_i C_{ij} \quad F_{ij} = C_{ij+1} / C_{ij}$$

Insurance isn't a particularly intuitive concept, whether you're figuring out how to price risk, design a risk classification plan or set aside the right amount to pay future claims. **We get that.**

That's why at Pinnacle, we'll walk through our actuarial findings with you, explain those findings in plain English and ensure **you know exactly what's driving the results.** You'll come away not only understanding how the numbers impact your organization's long-term viability, but equipped to make better business decisions.

Commitment Beyond Numbers



- Alternative Markets
- Enterprise Risk Management
- Legislative Costing
- Litigation Support
- Loss Reserving
- Predictive Analytics
- Pricing and Product Management
- Reinsurance

Captive Actuarial Value

Aaron Hillebrandt, director and consulting actuary with Pinnacle Actuarial Resources Inc., said he enjoys educating captive boards and owners about the actuarial process and core actuarial judgments. “The goal is to help create an environment between the actuary and the client where they understand some of our assumptions and they’re comfortable asking questions and challenging some of the judgments that we’ve made,” he said. The following are excerpts from an interview.

How well does the captive market understand actuarial capabilities?

Among captive owners and managers, there is a good understanding of basic actuarial services. For example, any prospective captive will need an actuarial funding analysis and pro forma financial statements to incorporate into the captives feasibility study. For an established captive, it will need an actuarial renewal funding analysis on an annual basis and a loss reserve analysis, at least on an annual basis.

Does the captive manager handle the pro forma portion of the feasibility study?

Oftentimes, they do. Sometimes, we are asked to help with the pro forma financial statements. Perhaps this is an area where the captive could get more value from their actuary. The captive may be considering multiple reinsurance options, and we can help optimize that process. If you think about projected loss ratios, surplus accumulation, leverage ratios, all those things are going to depend on the expected losses as modeled by the actuary under the various options. Our table (see graphic) shows various reinsurance scenarios as rows, and it shows different numerical values in the columns. Under the “no reinsurance” scenario, you see a net expected loss ratio of 55%. After the first year, you see accumulated surplus of \$1.15 million and a premium to surplus ratio of 2.69. Now, in the subsequent rows, you see the effects of several reinsurance options (assuming no excess claims).

Does client level education ever go beyond actuarial assumptions?

Absolutely. Anytime that data’s involved, the actuary can add value. For example, with presenting data graphically. There are a lot of defaults out there that can unintentionally muddy the story that the data is trying to tell.



Aaron Hillebrandt

Director and Consulting Actuary
Pinnacle Actuarial Resources Inc.



“The actuary can help optimize [the reinsurance decision] process, and help lead the captive to making better business decisions.”

Go to the Issues & Answers section at bestreview.com to watch an interview with Aaron Hillebrandt.

SAMPLE NUMBERS			
Reinsurance	Net Expected Loss Ratio	Surplus after 1 Year	Premium to Surplus Ratio after 1 Year
None	55%	\$1,150,000	2.69
20% Quota Share	55%	\$880,000	2.82
Excess of \$1 million per occ.	59%	\$940,000	3.07
Excess of \$500,000 per occ.	64%	\$720,000	3.68
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