

UNDERWRITING AUTOMATION AND THE UNDERWRITER ROLE



Kristin Ringland, FALU
Vice President and Deputy Chief Underwriting Officer
SCOR Global Life Americas
Leawood, KS
kringland@scor.com

The ALU Survey Group completed its fourth survey in 2016: Underwriting Automation and the Underwriter Role. If we were forced to draw one major finding from the survey, we would conclude that our industry is in the middle of a period of transformative change. Companies recognize underwriting automation can produce value, more efficient processes, consistent decision-making and improved turn-around time of applications. However, the value side may be superseded by market demands from a customer- and producer-base that is much more attuned to the “Amazon experience” – identify what you want, make the purchase and receive the goods in real time.

Underwriting Automation and the Underwriter Role provides timely and pertinent information about automated systems and how chief underwriters in the US and Canada see the underwriter’s role changing. This article first explains the purpose of the survey and participating parties. We then detail the results of the survey, provide insights into how companies currently use automation, and suggest new skill sets and training that may be necessary for underwriters of the future.

Past important survey topics have included Underwriting Audits, Underwriter Training and Education, and an Underwriter Census in 2014. The Underwriter Census provided valuable insight into the makeup of the underwriters working in the US and Canada. We plan on conducting another Underwriter Census in 2017, and will compare the information from the previous census to identify changes that our profession is experiencing. We encourage you to log in to the ALU website to review past surveys.

The survey questions appear in bold. All other comments were gleaned through either open-ended comment fields or survey response analysis.

Executive Summary *The ALU Survey Group recently conducted a survey to determine how companies are using automated systems, what requirements and products are being evaluated by automated systems, and how automation will impact the underwriter role. The survey was sent to chief underwriters at direct carriers, reinsurers and retrocessionaires. This article details the survey results, provides insights into how companies are currently using automation, and highlights skill sets and training which may be necessary for future underwriters.*

ALU Survey on Underwriting Automation and the Underwriting Role

The ALU survey had three goals:

- Determine if and how companies are using automated systems.
- Identify the requirements and products currently evaluated by an automated system.
- Further industry insights into the changes that underwriting automation could have on the underwriter role.

The ALU Survey Group created and conducted the survey with input from the ALU Executive team. Survey Group members:

- Kristin Ringland, SCOR Global Life Americas
- Carol Flanagan, John Hancock
- Roberta Scott, Woodmen Life
- John Sherman, AIG

Survey Participants

We updated the ALU Marketing and Survey Groups’ chief underwriter contact list with the support of the MIB. The survey was sent to over 200 companies in the US and Canada, and included direct carriers, reinsurers and retrocessionaires. We received responses

from 96 of the companies contacted, resulting in a 48% response rate.

Company type:

- Direct Carrier 93%
- Reinsurer 7%
- Retrocessionaire 0%

Number of life underwriters in the underwriting departments of the companies who responded:

- < 10 45%
- 11-25 25%
- 26-50 15%
- 51-75 5%
- 76-100 4%
- 101-150 2%
- >150 3%

What underwriting requirements do you currently receive via electronic data feed? (select all that apply)

- Application 55%
- Exam 44%
- IR 29%
- Labs 71%
- MIB 82%
- MVR 61%
- Rx 56%
- None 11%
- Other 17%

Eleven of 96 respondents indicated they receive requirements via an electronic data feed.

All companies (nine) that have more than 76 underwriters receive data via an electronic feed.

Size of companies (number of underwriters) that answered "None":

- < 10 7
- 11-25 3
- 51-75 1

Of those that receive requirements via an electronic data feed, "Other" electronic requirement options specifically mentioned by at least one respondent included: identity checks; electronic IR; e-application; criminal record check; predictive underwriting scoring; APS.

Which of the underwriting requirements that you receive via an electronic data feed directly populate your underwriting system? (select all that apply)

- Application 42%
- Exam 16%

- IR 6%
- Labs 32%
- MIB 47%
- MVR 30%
- Rx 28%
- None 38%
- Not Applicable 4%
- Other 9%

Requirements directly populate the underwriting systems of 40 of the companies that receive requirements via an electronic data feed. Thirty-six out of 40 companies with <50 underwriters do not have requirements that directly populate their underwriting system. All companies with >51 underwriters that responded to the survey have requirements that directly populate their underwriting system.

Which underwriting requirements that directly populate your underwriting system have a risk assessment completed by that system? (select all that apply; ranges following in parentheses indicate number of underwriters in responding companies)

- Application 2 (11-25 and 26-50)
- Exam 1 (26-50)
- IR 0
- Labs 1 (26-50)
- MIB 1 (26-50)
- MVR 2 (11-25 and 26-50)
- Rx 2 (11-25 and 26-50)
- None 37
- Other 3

Only one company responding "Other" provided detail: only Simplified Issue.

Does your underwriting system provide a final underwriting decision or does it provide a recommendation to your underwriter?

- Fully automated decision 7
(1-10, 26-50, 76-100 and 150+)
- Recommendation to underwriter 11
(1-10, 11-25, 51-75, 76-100)
- Both of the above 23
(all categories except 51-75)
- None of the above 27
- Not applicable 27

Of 95 respondents, 41 indicated that they have a system that provides at least a decision recommendation to the underwriter.

If you do not currently have an automated underwriting system, do you have plans to acquire/develop one? If so, please provide a time frame.

Of the 54 responding companies that do not currently have an automated underwriting system, 23 do not plan to acquire/develop one in the future. Of these companies, 18 have <10 underwriters, four have 11-25 underwriters, and one has 26-50 underwriters.

The remaining 31 carriers plan to acquire/develop one in the following time frame:

- 0 – 1 year 6
- 2 – 3 years 18
- 4 – 5 years 7

Respondents planning to acquire/develop an automated underwriting system are composed of 16 companies with <10 underwriters, nine companies with 11-25 underwriters, five companies with 26-50 underwriters, and one company with more than 150 underwriters.

If you have a fully automated underwriting system, does it process all products?

There were 30 responses to this question, with 14 answering “Yes” and 16 answering “No”.

	Yes	No
• 1-10	1	6
• 11-25	3	6
• 26-50	5	2
• 51-75	0	0
• 76-100	2	1
• 101-150	2	0
• 150+	1	1

If no, which products are processed through your fully automated underwriting system? (select all that apply)

• Term	14
• Permanent Products	10
• Accident and Health	1
• Accelerated Benefit	0
• Other	6

Sixteen respondents replied. The six “Other” responses consisted of the following: Final Expense; Critical Illness; Simplified Issue; Simplified Issue with clear responses and normal MIB (cases not approved by the system are reviewed by an underwriter).

Do you use an automated underwriting system for Simplified Issue/Guaranteed Issue?

- Yes 22
- No 6
- No, we do not have a Simplified Issue/Guaranteed Issue product 11
- No, we do not have an automated underwriting system 1

Based on the answers, six companies use underwriters to review their Simplified Issue/Guaranteed Issue cases, and one company with 150+ underwriters does not have a Simplified Issue/Guaranteed Issue product. The majority of companies with a Simplified Issue/Guaranteed Issue product use an automated system: <10 underwriters = 5, 11-25 underwriters = 9 and companies with 26-50 underwriters = 4.

Do you limit automated underwriting to Simplified Issue/Guaranteed Issue?

Eleven respondents replied that their company's automated underwriting is limited to Simplified Issue/Guaranteed Issue. Of those companies, all have 100 or fewer underwriters and the majority have 25 or fewer underwriters.

Twenty-eight companies use their automated underwriting system for more products than Simplified Issue/Guaranteed Issue. All of the different size underwriting shops are represented in this group.

Do you limit availability of automated underwriting decision-making based on a face amount threshold or on the age of the proposed insured?

- Yes, by age 0
- Yes, by amount 5
- Yes, by age and amount 23
- No 12

How did you develop or acquire your automated underwriting system? (select all that apply)

- Developed within your company 14
- Purchased from a third party 12
- Partnered with a reinsurer 10
- Partnered with a vendor 10

Forty carriers use an automated system and they seem to be pretty evenly split on the path they took to acquiring/developing their automated system. Based on the results, underwriting staff size does not seem to be a factor.

How has adopting an automated underwriting platform affected your underwriting staffing?

- No changes 21
- Additions to staff—underwriters 0
- Additions to staff—non-underwriters 1
- Reduction in overall staff up to 10% 5
- Reduction in overall staff >10% 2
- Other 10

The “Other” responses are varied. Several companies indicated the automated system is fairly new to their company; however, they have seen increased application activity with the same number of underwriting staff. A few companies indicated they didn’t need to replace underwriters leaving due to normal attrition, and there wasn’t a need to use contract underwriters. Some companies anticipate that once their system is fully operational, staffing needs may change.

Reduction in staff has come from the companies with <25 underwriters, and the only company to add staff (non-underwriter) has <10 underwriters.

A number of the open-field responses indicate the automated systems being used are new to their company or still in the testing/implementation stage.

As a result of implementing an automated underwriting system, has your company experienced any of the following? (select all that apply)

- Cost savings 17
- Cost increase 1
- Improvement in time service 31
- Delay in time service 0
- Improved policy placement rates 8
- Worse policy placement rates 1
- Mortality improvement 4
- Increase in mortality 0
- Increased complex case reviews 0
- Fewer simple case reviews 20
- Increased underwriter time availability (for projects, communication, etc.) 15
- Decreased underwriting time availability (for projects, communication, etc.) 0
- None of the above 1
- No changes noted 2
- Other

Most of the “Other” responses indicated the automated system is too new to be able to measure the effects. One company indicated it noticed “dramatically improved decision consistency” and another indicated “reduced SLAs.”

The top four responses: improvement in time service; cost savings; fewer simple case reviews; and increased

underwriter time availability (for projects, communication, etc.). These responsibilities reflect closely the motivations for moving to automated underwriting.

The only really negative comments: cost increase and worse placement rates. One of the “Other” responses addressed cost increase: “We have had cost increase initially; however, do feel we will see cost savings in the future.”

Who manages your automated underwriting system? (select all that apply)

- Underwriters 23
- IT department resources 23
- Outside consultants 2
- Project Manager 7
- Actuary 3
- Other 10

“Other” responses were: Business Analysts; Medical Director; Chief UW with a team of various personnel; underwriters with vendor representative; underwriting and IT staff; Chief Actuary and two underwriters; underwriting research team; and business specialist in the operations area.

If your automated underwriting system is managed by an underwriter, what training or skills were required for this underwriter to fulfill the role? (select all that apply)

- Data analytics 10
- Statistical analytics 2
- Process design 11
- Research 12
- Advanced Microsoft Office program skills/training 3
- Systems background 5
- Technical writing/documentation 8
- Management 5
- Project Management 9
- None of the above 14
- Other 5

“Other” responses included: 1) it’s managed by a team—so the individuals involved would have all the above skills; 2) most are prior underwriters who have developed skills in project work and systems enhancements—IT department makes all the coding changes; 3) strong technical underwriting skill to ensure deployed capabilities and underlying rules will drive expected mortality performance; and 4) desire to learn systems vs. develop technical underwriting expertise—desire to work in the automated underwriting vs. production environment.

The interesting answer to this question is “None of the above.” It would seem that introducing any new technology that could fundamentally alter the underwriting process—even on select product lines—would require some orientation and/or additional training.

As a result of implementing an automated underwriting system, have your underwriters experienced a change in underwriting duties? (select all that apply)

- More data entry/documentation required 4
- Less data entry/documentation required 13
- More requirements ordered 0
- Fewer requirements ordered 9
- More communication with the field 5
- Less communication with the field 1
- None of the above 12
- Other (please specify) 6

“Other” responses included: system is too new to tell; underwriters have more complex cases to review since the easier cases are processed by the rules engine—more challenging work; other changes in process could explain changes—not necessarily automation; we’ve had an underwriting engine since the 1980s and it’s embedded in our culture.

As a result of implementing an automated underwriting system, have you experienced a change in culture within your underwriting staff? (select all that apply)

- Improved morale 7
- Reduced morale 0
- Requests for more opportunity outside of case underwriting 1
- Requests for additional training 6
- Job security concerns 2
- Increased underwriter attrition 1
- Decreased underwriter attrition 0
- None of the above 17
- Other 8

“Other” responses included a few companies that report that they are too early in the implementation process to have experienced a change in culture. On the other hand, two companies have had their system for >10 years and they feel it’s part of the culture. One company indicated initially job security was a concern, but after the implementation >4 years ago, that concern has faded away. One interesting comment was that underwriters like automation, but at the same time it can lead to a reliance on the system and can create a “rules mentality” rather than a more holistic view of the case.

Has implementing an automated underwriting system created additional opportunities for the underwriter career path?

- Yes 19
- No 19
- Not applicable 0

If yes, which of the following? (select all that apply)

- Research 10
- Programming 2
- Auditing 9
- Quality Assurance 6
- Subject matter experts in automation 14
- Claims evaluation 2
- Automation development 14
- Other 2

“Other” responses: rule book governance; analysis of the data/decisions and recommendations to rules.

What additional training do underwriters need to prepare for the future? (select all that apply)

- Database management 21
- Statistical analysis 31
- Data analysis 56
- Advanced medical 59
- Advanced financial 53
- Basic Microsoft Office or similar programs (Excel, Access, Word, etc.) 23
- Advanced Microsoft Office or similar programs (Excel, Access, Word, etc.) 22
- None 4
- Other 8

The “Other” answers contained much of the information above, as well as: mortality analysis; claims analysis; marketing demographics; advanced medical/financial cases because most of the easy cases are “straight through”; verbal and written communication; credit scores; knowledge of big data—fitbits, etc. One answer was extremely specific: “Advanced Business Rules management, Advanced Forensic Underwriting and Auditing, Advanced Anti-Selection and Anti-Fraud Training, Advanced Customer Service Training, in-depth understanding of non-traditional underwriting tools and their effect on mortality/morbidity.”

What will the desirable requirements be for a future new or trainee underwriter? (select all that apply)

- Associate degree 13
- Bachelor degree 66
- Mathematics specialty 12
- Medical specialty 47
- Nursing specialty 32
- IT specialty 13
- Actuarial specialty 9
- Other 11

There were 86 responses on this question and 66 of them indicated a bachelor's degree is a desirable requirement. Overall the answers indicate solid medical training is necessary to excel in underwriting. "Other" responses were very good, including: data analytics; customer service skills; someone who adapts to change, is adaptable, assertive and able to multitask.

What do you think the requirements will be for a future chief underwriter? (check 5 most important)

The top five answers were: proven underwriting experience; management experience; advanced analytics; FALU; and project management.

The "Other" responses were insightful: experience is key and it's important to be well rounded without losing sight of the main goal—risk assessment, technology understanding and knowledge; and how an individual fits in with the company's culture, philosophy and goals, and can work to support and achieve them, is more important.

How are you planning for the changing underwriting role in the future?

This was an open-ended question and our goal was to obtain insight into how chief underwriters are planning for all the changes on the horizon in underwriting. There were 55 responses to this question and some of the answers are combined/summarized below.

- ✓ Increased training and coaching.
- ✓ Increasing the professionalism of the underwriter—cases they handle will be complex.
- ✓ Internal development of top staff and succession planning.
- ✓ More focus on underwriting data, big data analytics, innovation and product design.
- ✓ No planning initiated yet.
- ✓ There is a gap in the industry [underwriter attrition] and no one is paying attention to the gap—senior management is not aware of the gap, but they feel IT will replace underwriters.

- ✓ Screening new candidates for competence in math, statistics and analytical competencies.
- ✓ Keep abreast of industry changes through trade journals, industry literature, educational courses and industry conferences.
- ✓ Embrace new technologies.
- ✓ The next generation of underwriter will be tasked with mastering medical underwriting, financial and technological skills/computer aptitude.
- ✓ Keeping up with current trends in underwriting and technology.
- ✓ Focusing on enhancing underwriters' critical thinking skills and improving their soft communication skills.
- ✓ Fundamentally the role won't change. The complexity of the cases reviewed will increase. The resources underwriters leverage, their work processes, quality objective, etc., will remain the same.
- ✓ Provide medical training for underwriters and encourage them to take ALU and LOMA courses.
- ✓ Waiting to see what other companies are doing.
- ✓ Simplified underwriting without blood/exam—more straight-through processing and less need for experienced medical underwriters.
- ✓ Adding a data scientist and business analyst to the department.
- ✓ Providing different career path options for underwriters, getting them involved in more than production work.
- ✓ Retiring in less than 10 years and hope to find replacement.
- ✓ Outsourcing in-house underwriting.
- ✓ Automating underwriting.
- ✓ Retiring.

Based on the responses outlined above, many companies are in the process of planning, some are not planning ("wait and see") and some are even retiring. Lucky people! For the most part, it appears people anticipate more training and education for their underwriters in the medical and financial areas. This makes sense with the survey responses indicating that as more cases are processed through underwriting engines, the more difficult cases will kick out and require review by an underwriter. Training and education is an important part of planning for the future of their underwriting department.

The 2015 ALU survey on Underwriter Training and Education is available on the ALU website. The article on the results of that survey may provide some guidance on how to get the most out of your training program and the training materials companies are currently using.

Conclusion

As we mentioned in the conclusion of the 2015 survey, if this survey's responses are representative of the life insurance industry as a whole, the profession is entering a changing of the guard. In 2016 the theme seems to have shifted to indicate an industry that is in an exciting period of change. Companies recognize the value that underwriting automation can bring, the efficiencies it can provide, the consistency in decision-making and improved turnaround time of applications. One thing often mentioned about the "Millennial" generation is they want everything, "quicker, faster, better and cheaper." The industry as a whole is reporting increased application numbers and specifically in the younger and formerly elusive middle market. Hopefully, consumers are noticing that the insurance industry is changing along with consumer interests in the US and Canada.

Based on the responses to the question on the effects automation has had on underwriters, it appears underwriters are a resilient group. People are adapting to new workplace demands and learning new skills. Ten years ago, how many of us used the term "big data"? Now most underwriters are well aware of the potential impact that the capture, mining and analysis of data can have on the underwriting profession. Half

of the responses in the survey indicate automation has created new career opportunities for underwriters. Many people are taking advantage of these opportunities to learn on their own, to participate in projects, be part of the change and—as a result—make themselves more valuable employees and team members.

The survey indicates many people still value the same requirements for a new underwriter: a college degree, someone who adapts to change, has good customer service skills and is a multi-tasker. A medical background or at least an interest in the medical field is still a positive in an underwriting candidate. Despite all the changes going on in the industry, a number of companies indicate they do not find the role changing much in the immediate future. Time will tell.

In 2017 the Survey Committee will conduct another Underwriter Census. Will another year and an update on the 2014 survey provide more insights for planning the future of our underwriting departments? We on the ALU Survey Group hope so. As with the past survey, we will rely on the assistance of all the underwriters in the industry to make sure everyone completes the survey. Look for information on the ALU website this fall. The census will be distributed in early 2017.

About the Author

Kristin Ringland is the Vice President and Deputy Chief Underwriting Officer with SCOR Global Life Americas. She began her underwriting career at Lincoln Benefit Life and most recently worked for Empire General as an Assistant Vice President. Kristin is Coordinator of the Survey Group - part of the Academy of Life Underwriting, Past President of the Kansas City Risk Selectors Group, and she was a member of the 2007-2008 AHOU Planning Committee. Kristin has a Bachelor of Arts degree from the University of Nebraska, as well as her FLMI and FALU designations.