Managing a Reserving Project Effectively – Consultant's View

Casualty Loss Reserve Seminar

San Diego, CA

Commitment Beyond Numbers

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ACTUARIAL RESOURCES, INC.

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Agenda

- What is Project Management
- Initiating Project
- Planning Project
- Executing Project
- Monitoring & Controlling Project
- Closing Project
- Conclusion

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What is Project Management

"Project management is the application of knowledge, skills and techniques to execute projects effectively and efficiently. It's a strategic competency for organizations, enabling them to tie project results to business goals – and thus better compete in their markets."

Source: Project Management Institute website

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What is Project Management

- Manages expectations of project team and client
- Allocates activities to the right person at the right time
- Acts as gatekeeper
- Communication

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Initiating

Activities

- Identify scope
- High level project plan
- Estimate costs
- Submit proposal

Pitfalls

- Underestimating scope
- Not fully understanding goals
- Underestimating time

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Initiating – Identify Scope

- Review prior report
- What data will be delivered
- Has scope changed
- How many hours were expended previously
- Include parameters to limit scope creep

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Initiating – High Level Project Plan

- Kickoff meeting
- Collection & review of data
- Development of reserve analysis exhibits
- Technical review of exhibits
- Analysis/selections
- Peer review of exhibits/analysis/selections
- Draft report
- Peer review of draft report
- Presentation of draft report
- Changes to draft report
- Presentation of final report

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Initiating – Estimate Costs

- How will data be delivered
- What data will be delivered
- Has scope changed
- How many hours were expended previously

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Initiating – Submit Proposal

- Internal peer review
- Clearly describe project plan
- Include project deliverables

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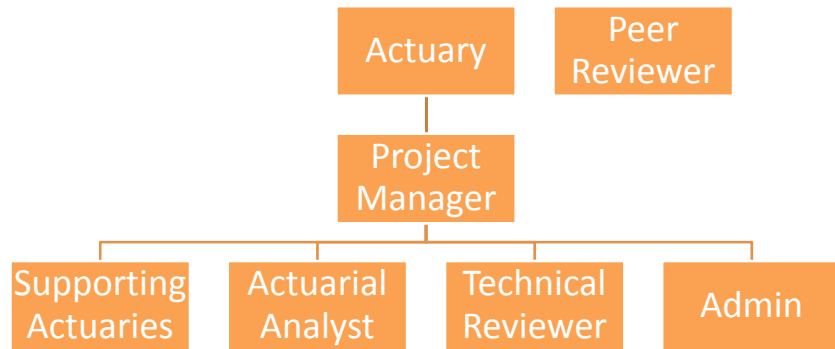ACTUARIAL RESOURCES, INC.

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Planning

Activities

- Identify team
- Allocate responsibilities
- Allocate tasks
- Establish timelines
- Communication channels

Pitfalls

- Poor communication
- Lack of clarity in responsibilities
- Unrealistic resource allocation
- Coordination of resources with other projects

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Planning – Identify Team

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                    ┌──────────┐   ┌──────────┐
                    │  Actuary │   │   Peer   │
                    │          │   │ Reviewer │
                    └────┬─────┘   └──────────┘
                         │
                    ┌──────────┐
                    │ Project  │
                    │ Manager  │
                    └────┬─────┘
        ┌────────────┬───┴────┬────────────┐
   ┌─────────┐ ┌─────────┐ ┌─────────┐ ┌─────────┐
   │Supporting│ │Actuarial│ │Technical│ │  Admin  │
   │Actuaries │ │ Analyst │ │Reviewer │ │         │
   └─────────┘ └─────────┘ └─────────┘ └─────────┘
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Planning – Allocate Tasks and Responsibilities

Key Steps	Actuary	Project Manager	Peer Reviewer	Actuarial Analyst	Technical Reviewer	Admin Staff
Kickoff meeting	X	X	X	X		
Data	X	X		X		
Exhibits	X	X		X		
Tech review					X	
Analysis	X	X				
Peer review analysis			X			
Write report	X	X		X		X
Peer review report			X			
Deliver report	X					X

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Planning – Establish Timeline (Gantt Chart)

Project Planner

Plan | Actual | % Complete | Actual | % Complete

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
Kickoff Meeting	1	1			0%
Collection and Review of Data	5	10			0%
Development of Reserve Analysis Exhibits	15	7			0%
Technical Review of Exhibits	22	1			0%
Analysis/Selections	24	2			0%
Peer Review of Analysis	26	1			0%
Write Reserve Report	24	5			0%
Peer Review of Report	29	2			0%
Presentation of Final Report	31	1			0%

Excel® Gantt Project Planner

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Planning – Establish Timeline (PERT Chart)

Project Evaluation and Review Technique

- Events
  - PERT event
  - Predecessor event
  - Successor event
- PERT activity
- Times
  - Optimistic
  - Pessimistic
  - Most likely
  - Expected = (optimistic + 4 x most likely + pessimistic) / 6
- Float
- Critical path

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Planning – Communication Channels

- Status reports
- Internal meetings
- External meetings

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Executing

Activities

- Project Kick-off
- Data review & organization
- Exhibit development
- Analysis
- Report writing

Pitfalls

- Data
- Lack of communication
- Competing projects
- Lack of experience/expertise

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Executing – Project Kickoff

External	Internal
• Program history • Operational changes • Scope of project • Expectations • Deadlines • Available data and format • Data dictionary	• Assign roles • Discuss items from external meeting • Set deadlines

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Executing – Project Kickoff

ASOP 23

Source of data

Statement of Principles

Data organization homogeneity	Aggregate limits change in contracts	Reinsurance commutations	Pools & associations discounting	Operational changes External influences

ASOP 43

Type of unpaid claim expense	Type of claims	Risks posing significant/material effect	Consideration of external factors	Consideration of significant changes

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Executing – Data Review

- Reconciliation with financial statements
- Reconciliation with prior analysis
- Paid data - calendar year or inception to date
- Limited or full value claims
- Gross or net of salvage/subrogation
- Treatment of DCC

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Executing – Data Checklist (ASOP 23)

- Source of data
- Review of data and any resulting limitations
- Extent of reliance on data supplied by others
- Any material judgmental adjustments or assumptions
- Any limitations on the actuarial work product
- Any unresolved concerns
- Existence of results that are highly uncertain
- Conflicts arising from complying with applicable law, regulation or other binding authority

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Executing – Exhibit Development

- Development methods based on available data
- Easy to update
- Well documented
- Footnotes
- Technical review of data input and formulas

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Executing – Analysis

- Review diagnostics
- Loss development patterns
- Expected loss ratios (costs)
- Supplement with industry benchmarks
- Loss & DCC methods
- AOE method(s)
- Selection of ultimates
- Central estimate or range of estimates
- Nominal or discounted basis
- Risk margins

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Executing – Analysis Checklist

- Data organization
- Homogeneity
- Credibility
- Data availability
- Emergence patterns
- Settlement patterns
- Development patterns
- Frequency & severity
- Reopened claims potential
- Claims-made
- Aggregate limits
- Salvage, subrogation and collateral sources
- GAAP

- Reinsurance
- Portfolio transfers, commutations, structured settlements
- Pools and associations
- Operational changes
- Changes in contracts
- External influences
- Discounting
- Provision for uncertainty
- Reasonableness
- Loss related balance sheet items
- Loss reserving methods
- Standards of practice

(Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves, May 1988)

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Executing – Report Writing

ASOP 20	• Discounting of property/casualty unpaid claims estimates
ASOP 23	• Data quality
ASOP 38	• Using models outside the actuary's area of expertise (property and casualty)
ASOP 41	• Actuarial communications
ASOP 43	• Property/casualty unpaid claim estimates

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Executing – Report Checklist (ASOP 41)

- Form & content are appropriate
- Clarity of report
- Actuarial findings clearly stated
- Methods, procedures, assumptions, data sources
- Allow appraisal by another actuary
- Do circumstances constrain content
- Material differences from prior report
- Identification of responsible actuary
- Acknowledgment of qualification

- Identification of actuarial documents
- Identification of intended users
- Cautions regarding risk & uncertainty
- Limitations on use
- Data/information date
- Subsequent events
- Assumptions/methods prescribed by law
- Responsibility for assumptions/methods
- Conflicts of interest
- Deviation from standard

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Executing – Report Checklist (ASOP 43)

- Identification of principal
- Identification of purpose
- Acknowledgement of constraints
- Identification of type of measure
- Type of unpaid claim expense
- Type of claims
- Risks posing significant/material effect
- Methods/models clearly documented
- Rationale for use of one method
- Assumptions are appropriate

- Reliance on principal's assumptions
- Sensitivity to alternate assumptions
- Consideration of external factors
- Consideration of significant changes
- Consideration of uncertainty
- Consideration of independence/correlation between components
- Identification of relevant dates
- Changes in methods and assumptions
- Deviation from standard

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Monitoring & Controlling

Activities

- Hit deadlines
- Quality control
- Budget control

Pitfalls

- Scope creep
- Expecting to catch up
- Too much/too little instruction
- Too frequent/infrequent status checks

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Monitoring & Controlling – Hit Deadlines

Project Planner

Legend: Plan | Actual | % Complete | Actual | % Complete

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
Kickoff Meeting	1	1	1	1	100%
Collection and Review of Data	5	10	7	10	100%
Development of Reserve Analysis Exhibits	15	7	17	5	100%
Technical Review of Exhibits	22	1	22	4	100%
Analysis/Selections	24	2	26		25%
Peer Review of Analysis	26	1			0%
Write Reserve Report	24	5			0%
Peer Review of Report	29	2			0%
Presentation of Final Report	31	1			0%

PERIODS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Excel® Gantt Project Planner

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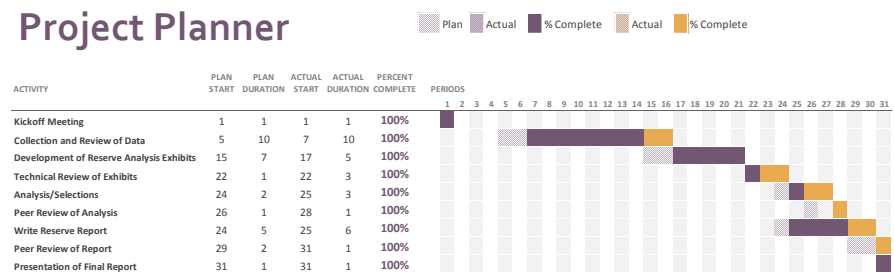ACTUARIAL RESOURCES, INC.

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Monitoring & Controlling

- Review expended hours
- Status reports from within project team
- Working while on the road
- Raise red flags
- Status reports to client

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Closing

- Communication of final results to support staff
- Estimated time versus actual time
- Lessons learned
- Educational/mentoring opportunity
- File documentation
- File retention
- Celebrate success

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Closing – Gantt Chart

Project Planner

| | Plan | Actual | % Complete | Actual | % Complete |

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
Kickoff Meeting	1	1	1	1	100%
Collection and Review of Data	5	10	7	10	100%
Development of Reserve Analysis Exhibits	15	7	17	5	100%
Technical Review of Exhibits	22	1	22	3	100%
Analysis/Selections	24	2	25	3	100%
Peer Review of Analysis	26	1	28	1	100%
Write Reserve Report	24	5	25	6	100%
Peer Review of Report	29	2	31	1	100%
Presentation of Final Report	31	1	31	1	100%

Excel® Gantt Project Planner

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Conclusion

- A Good project manager
  - Understands the issues
  - Works well in teams
  - Focuses on delivery
  - Communicates

- A Good project team
  - Right mixture of skills and experience
  - Clear, shared and understood goal
  - Clear communication of progress, issues and expectations

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Thank You for Your Attention

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