
Contents

	Introduction	xv			
1	An Overview of Insurance Information Systems	1			
	Insurance Information Systems	2			
	Management Information	5			
	Uses of Information	9			
	Summary	34			
2	Data and Information Flows	37			
	Data Flows	38			
	The Accounting Cycle	41			
	The Information Processing Cycle	52			
	Summary	63			
	Appendix	65			
3	System Planning	71			
	Strategic Planning	72			
	Strategic Planning and Information Systems Planning	79			
	System Development	83			
	Software Engineering Methodologies and Tools	93			
	Project Management	105			
	Summary	117			
4	Data Administration	119			
	Data Administration Objectives	119			
				Data Files	120
				Data Dictionaries	132
				Databases	137
				Summary	150
5	Insurance Activity Cycles I: Premiums	153			
	The Cycle Concept	153			
	Premium Cycle	155			
	Summary	187			
6	Insurance Activity Cycles II: Losses, Reserves, and Reinsurance	189			
	Loss and Loss Adjustment Expense Cycle	189			
	Reserve Reporting Cycle	204			
	Reinsurance Cycle	217			
	Summary	226			
7	Insurance Activity Cycles III: Treasury, Investment, Payroll, and Nonpayroll Expenditure	229			
	Treasury Cycle	229			
	Investment Cycle	238			
	Payroll Cycle	252			
	Nonpayroll Expenditure Cycle	260			
	Summary	269			

8	Budgeting	271		
	Purposes of a Budget	273		
	Essentials of Budgeting and Reporting System Design	275		
	Budgeting	280		
	Capital Planning	299		
	Summary	299		
9	Management Reporting	303		
	Regular Management Reports	304		
	Responsibility Accounting	323		
	Decision Support	329		
	Knowledge-Based Systems	330		
	Neural Networks	335		
	Online Analytical Processing Tools	335		
	Summary	336		
10	Statistical Reporting	339		
	Data and Ratemaking	340		
	Major Statistical Organizations	353		
	Statistical Reporting Requirements	368		
	Data Quality	374		
	Summary	380		
11	Data Security and Integrity	383		
	Security in Computer-Based Systems	383		
	Security and Integrity With a DBMS	395		
	Security and Integrity in Computer Networks	398		
	Evaluating Security and Integrity	407		
	Summary	422		
12	System Controls	425		
	The Nature of Internal Control	425		
	Application Controls	436		
	General Controls	437		
	Compliance Tests of Controls Over Conversion to New Systems	448		
	The Effect of General Control Weakness	450		
	Computer Abuse	451		
	Implementation of Controls	455		
	Control Reviews	457		
	Summary	461		
13	Auditing	463		
	The Audit Process	464		
	Compliance Tests and Reviews in Information Systems	476		
	Substantive Tests or Procedures	488		
	Information Systems Testing Techniques	494		
	Summary	503		
	Index	505		