

ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672  
5388 SLAB SB 322 (file 10) - (file 11)

966

States	workers' voc. rehab. provisions	legislature's policy statement	prereq. to eligibility	comp. during voc. rehab.	voc. rehab. benefits	maintenance
Vt.	Vt. Stat. Ann. tit. 21, § 641 (Supp. 1985)		EE unable to perform work for which he has prior training or experience. VR as reasonably necessary to restore him to suitable employment.	Temporary disability benefits end once recovery process ends or worker has achieved max possible restoration of his earning power. At that point, worker has reached end result of healing process. <i>Bishop v. Town of Barre</i> , 140 Vt. 564, 442 A 2d 50 (Vt 1982).	ER provided VR services, including retraining and job placement; reasonable cost of books, tools, basic materials.	
Va.	Va. Code § 65.1-88 (Supp. 1985)		ER furnishes VR at direction of Indus. Comm'n.	Comp. for temporary disability ceases upon maximum medical recovery. <i>County of Spotsylvania v. Har.</i> , 218 Va. 565, 238 S.E.2d 813 (Va. 1977).	ER furnishes reasonable and necessary VR services.	
Wash.	Wash. Rev. Code §§ 51.32.095, .110, .250 (Supp. 1986)	Primary purpose of workers' comp. title is restoration of injured worker to gainful employment.	VR necessary and likely to restore EE to gainful employment after evaluation and before permanent disability rating. Supervisor of Indus. Ins. makes determination.	TTD. Wash. Rev. Code § 51.32.095 (Supp. 1986).	ER or Indus. Ins. pays for VR, books, tuition, fees, supplies, equipment, transportation, and necessary expenses up to \$3000 in any 52 week period.	
W. Va.	W. Va. Code § 23-4-9 (1985)		Workmen's Comp. Comm'n. determines that EE has sustained or is likely to sustain permanent disability. EE susceptible to VR and can be returned to remunerative employment.	TTD available during VR. W. Va. Code § 23-4-9 (1985).	State Fund pays amount as may be necessary for VR up to \$10,000.	

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or is likely to sustain  
permanent disability.  
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remunerative  
employment.

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insurance up to \$10,000.

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States	workers' voc. rehab. provisions	legislature's policy statement	prereq. to eligibility	comp. during voc. rehab.	voc. rehab. benefits	maintenance
Wis.	Wis. Stat. Ann. §§ 102.42(9), .43(3), .61 (West Supp. 1985)	One of primary purposes of workers' comp. chapter is restoration of injured EE to gainful employment.	EE must undertake VR within 60 days of date he has sufficiently recovered to do so, or as soon thereafter as officer or agency in charge of VR permits him to do so.	TTD or TPD available during VR. When EE is temporarily disabled on account of receiving VR and not otherwise from his injury, TTD limited to 40 weeks. But 40-week limitation does not apply if Dep't of Indus., Labor, and Human Relations determines that additional training is warranted. Wisc. Stat. Ann. § 102.43(5) (Supp. 1985).	ER pays actual and necessary expenses of travel.	
Wyo.	none			TTD ceases "[a]s soon as the recovery is so complete that the earning power of the employee at a gainful occupation for which he is reasonably suited by experience or training, is substantially restored..." Wyo. Stat. § 27-12-402(b) (1983). See <i>In re Hles</i> , 56 Wyo. 443, 110 P.2d 826 (1941).		
FECWIA	5 U.S.C. §§ 8104, 8111(b) (1982)		Sec. of Labor may direct permanently disabled individual to undergo VR.	TTD and augmented comp. for dependents available during rehabilitation, less any earnings during rehabilitation other than earnings from employment undertaken pursuant to VR. 5 U.S.C. § 8104(b) (1982).	Sec. provides VR services with funds from ER's Comp. Fund.	Sec. may pay up to \$200/month.

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VOCATIONAL REHABILITATION

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States	workers' voc. rehab. provisions	legislature's policy statement	prereq. to eligibility	comp. during voc. rehab.	voc. rehab. benefit	maintenance
LHWCA	33 U.S.C. §§ 908, 939(c), 944 (1982)		EE is or may be expected to be totally or partially incapacitated.		Sec. of Labor pays for VR services and prostheses from § 944 Special Fund	Sec. pays \$25/week from § 944 Special Fund.

**APPENDIX B:  
AN OVERVIEW OF WORKERS' COMPENSATION, VOCATIONAL REHABILITATION, CONTINUED**

States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
Ala.	Reasonable charges for necessary board, lodging, and travel.				Loss of comp. for each week of refusal; loss of right to receive a permanent and total disability rating.	ER may petition to revise award of permanent total disability comp. if EE no longer suffers permanent and total disability due to VR.
Alaska	Reasonable cost of board, lodging, and travel.		37 weeks. Rehab. Administrator may extend VR for another 37 weeks if special circumstances exist.		Forfeit comp. during period of refusal to participate in evaluation or plan. May recover 25% upon successful completion of VR.	Statute establishes order among VR plans and meaning of return to suitable gainful employment. Alaska Stat. § 23.30.041(3) (Supp. 1983).
Ariz.	See maintenance					

ER = employer  
 EE = employee  
 TD = temporary disability  
 PD = permanent disability  
 TPD = temporary partial disability  
 TTD = temporary total disability  
 PPD = permanent partial disability  
 PTD = permanent total disability

States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
Ark.	Additional cost of room and board. <i>Gray v. Armour &amp; Co.</i> , 598 S.W.2d 434, 435 (Ark. Ct. App. 1980). ER pays reasonable expense of travel.	None. See <i>Gray v. Armour &amp; Co.</i> , 598 S.W.2d 434 (Ark. Ct. App. 1980).	60 weeks		Workers' Comp. Comm'n may consider whether VR would diminish permanent disability. <i>Smelser v. S.H. &amp; H. Drilling Corp.</i> , 593 S.W.2d 61, 62 (Ark. Ct. App. 1980).	EE, if not working or receiving other weekly benefits, is entitled to payment at his regular weekly benefit rate for a period of 6 weeks commencing on date of request for VR while parties explore VR potential.
Cal.	See maintenance					ER may not petition to decrease or terminate temporary disability benefits during VR. See generally <i>Shasta Convalescent Hospital v. Workers' Compensation Appeals Bd.</i> , 132 Cal. App. 3d 997, 183 Cal. Rptr. 602 (Cal. App. 1982).
Colo. --	ER pays transportation		26 weeks. Dir. of Indus. Comm'n may extend VR services for additional 26 weeks.	If ER or ins. carrier does not provide VR, Dir. may refer EE to qualified physician or facility for VR evaluation. If VR reasonably necessary, ER must pay costs.	If EE withdraws from VR program, PPD is calculated as though he successfully completed VR.	Div. of Labor to cooperate with Dep't of Soc. Services regarding VR.

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(Cal. App. 1982)

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Conn.						Conn. Gen. Stat. § 31-283a (Supp. 1985) establishes a div. of workers' rehab. within workers' comp. comm'n.
Del.	ER pays reasonable cost of board, lodging, and travel. See <i>Mosely v. Delaware</i> , 372 A.2d 178 (Del. 1977).				Loss of comp. for each week of refusal to accept lkl ordered VR. <i>Wilmington Hous. Auth. v. Gonzales</i> , - 333 A.2d 172 (Del. Super. Ct. 1975).	
D.C.					Suspension of comp. during period of refusal.	Mayor monitors VR.
Fla.	Reasonable cost of board, lodging, and travel.		26 weeks. Dep. Comm'n'er, upon finding it necessary and proper, may extend for additional 26 weeks.		Refusal to accept rehab. results in 50% reduction in weekly comp.	Dep. Comm'n'er must determine whether there is a reasonable probability that EE can be rehabilitated before adjudication of permanent and total disability.
Ga.	ER pays reasonable costs of board, lodging, and travel.		26 weeks. Workers' Comp Bd. may extend for additional period if required and likely to restore EE to suitable employment.		Bd. in its discretion may suspend, reduce, or limit comp.	

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States	benefits available when EE is required to reside away from customary residence	benefits available to//or family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
Hawaii				Dir. of Labor & Indus. Rel. makes referrals to Dep't of Soc. services and Housing and private VR providers.		Dir. adopts rules regarding additional living expenses and VR costs.
Idaho	ER pays reasonable travel expenses to and from facility. If EE outpatient, ER pays daily subsistence as ordered by the Comm'n to cover reasonable expenses of board, lodging and transportation.		52 weeks. Indus. Comm'n may extend for additional 52 weeks if it finds extension advisable after application and hearing.			Rehab. Div. established within Indus. Comm'n.
Ill.	Sec maintenance					
Ind.						
Iowa			13 weeks. Indus. Comm'n may extend for additional 13 weeks if circumstances indicate continuation will accomplish VR.			
Kan.	If ER furnishes VR, reasonable costs of board, lodging and travel not to exceed \$2000 for any 26-week period. Dir. may require ER to pay additional \$1000. Such costs may be borne by Federal, State or other public agency.		26 weeks if VR at ER's expense. After hearing, in extremely unusual case, Dir. may extend for additional 26 weeks.	Dir. of Div. of Worker's Comp. may refer EE to federal, state, or public agency which may provide services at no cost to ERs.	Suspension of compensation. If refusal exists beyond 90 days, Dir. must cancel comp.	Statute provides for rehab. administrator.

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Ky.	ER pays reasonable cost of board, lodging, and travel.		52 weeks. Bd. may extend period after hearing in unusual cases.	Workers' Comp Bd. may refer EE to physician of facility for evaluation of suitability of VR, and based on response, order that VR be provided.	50% loss of comp. for each week of refusal.	Statute creates rehab. panel.
La.	ER pays reasonable cost of board, lodging, and travel.		26 weeks. Dir. or court may extend 26 weeks if necessary and proper.	Upon application of ER, EE or Insurer, Dir. may refer EE to physician or facility for purpose of evaluating EE's need of VR and the scope of VR necessary to restore EE to suitable gainful employment. Based on evaluation, Dir. may order VR.	Weekly comp. reduced by 50% during period of refusal.	<i>See Hughes v. Webster Parish Police Jury</i> , 414 So.2d 1353 (La. Ct. App. 1982).

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States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
Mass.	ER pays necessary expenses for travel, room and board.			Div. of Indus. Accidents and Rehab. Bd. refer EE to an impartial Rehab. examiner. ER required to provide Rehab. Bd. name of any EE receiving comp. for 6 months		EE not required to accept VR.
Mich.	See maintenance		52 weeks. Dir., after review, by special order may extend additional 52 weeks, or portion thereof.	Dir. of Bureau of Workers' refers EE to bureau-approved facility for evaluation.	Dir. determines loss or reduction of comp for each week of the period of refusal except comp. for partial disability.	
Minn.	ER pays reasonable costs of board and lodging.	Rehab. Serv. Sec. of Workers' Comp. Div. may provide VR to a dependent spouse who is in need of VR to become self-supporting	156 weeks	Generally, ER to provide rehab. consultation w/in 3 days after EE has 60 days of lost work. If not, comm'r will do so.	Comp. may be suspended, terminated or altered if EE uncooperative.	Statute creates Rehab. Review panel to hear appeals, study rehab., recommend rehab. rules.
Miss.			52 weeks			



N.J.

housing, and travel.

Commission may extend period as may be reasonable and necessary to accomplish successful results.

refusal.

within Winkler's Camp Div.

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States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
N.M.	see maintenance	see maintenance		Court refers all cases in need of VR to appropriate public or private agencies in NM or in any other state.	Refusal does not result in forfeiture or diminution of any award.	<i>Lane v. Strauss &amp; Co.</i> , 92 N.M. 504, 507, 590 P.2d 652, 654 (Ci. App. 1979), distinguishes rehab. from VR as the restoration of an individual to his greatest potential—physically, mentally, socially, and vocationally.
N.Y.					Refusal does not affect right to disability benefits. <i>Kulevas v. J. Li. Williams &amp; Co.</i> , 27 A.D.2d 22, 24, 275 N.Y.S.2d 546, 548-49 (1966).	VR constitutes care and treatment. Dep't of Labor cooperates with Dep't of Education in providing VR.
N.C.						

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VOCATIONAL REHABILITATION

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States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
N.D.			Rehab. contract establishes duration of program.		Discontinuance of lost-time benefits during period of refusal. If noncompliance continues for 6 months after final order discontinuing benefits, Bureau loses all jurisdiction to award further disability comp. benefits.	Bureau pays claimant's attorney's fees for purposes of effecting rehab. contract. Dir. of Rehab. Services responsible for program.
Ohio			Living maintenance payments not to exceed 6 months unless comm. decides claimant will benefit by an extension.	Indus. Comm'n refers to Rehab Serv. Comm'n all claimants with respect to whom it believes inquiry into VR should be made.		
Okla.	ER pays reasonable cost of board, lodging, travel, tuition, books, necessary equipment.		52 weeks. Court may extend for additional 52 weeks after affording interested parties an opportunity to be heard.	Judge of Workers' Comp. Court refers EE to qualified physician or facility.	Refusal to accept VR does not diminish benefits.	Court to cooperate with VR Sec. of Dep't of Human Services and Employment Service of Okla. Employment Security Comm'n.
Or.						
Pa.						

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States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
R.I.	Reasonable expenses for board, lodging, and travel.				Comp. suspended while injured EE willfully refuses to participate in approved VR program.	ERs or carriers must contribute to Donicy Rehab. Center for rehabilitation of injured workers.
S.C.	Reasonable cost of board, lodging, and travel.			52 weeks. Indus. Comm'n may extend for 26 weeks by special order after opportunity to be heard.	Loss of comp for each week during period of refusal.	
S.D.						
Tenn.				Div. of Workers' Comp. to refer all feasible cases for VR to Dep't of Education.		
Tex.				Indus. Accident Bd. refers EE to Rehab. Comm'n when VR is indicated.		If artificial appliances would improve EE's occupational opportunities, they must be furnished. Tex. Rev. Civ. Stat. Ann. art. 8306, § 7d (Vernon 1986).
Utah			ER's maximum liability is 6 years, after which second injury fund is used.	If EE tentatively has a PTD, Indus. Comm'n must refer him to Div. of VR.	Refusal results in loss of PTD comp. from Second Injury Fund once ER's liability for PTD ends (after 312 weeks).	

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Vt.	Reasonable cost of board, lodging, and travel.			Comm'n'r of Labor and Indus. may refer EE to qualified physician or facility for evaluation.	Loss of comp. for each week of refusal if Comm'n'r so directs.	
Va.					EE barred from further comp. until refusal ceases. No comp. shall be paid for period of suspension unless Indus. Comm'n finds refusal justified.	
Wash.	ER pays reasonable cost of board and lodging.	ER pays for child or dependent care.	52 weeks (\$3000 plus TTD); Supervisor may after review extend VR another 52 weeks.		Dep't of Labor may reduce, suspend, or deny comp. for refusal to participate after notice given.	Second Injury Fund pays ER up to \$5000 per worker per job modification to encourage ERs to hire workers with disability from work-related injury.

States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
W. Va.						Permanently disabled EE must prove by a preponderance of evidence that he can be vocationally rehabilitated and returned to remunerative employment. <i>Estes v. Workmen's Compensation Comm'r</i> , 150 W. Va. 492, 147 S.E.2d 400 (W. Va. 1966).
Wis.	ER pays actual and necessary costs of maintenance.			40 weeks. Limitation does not apply if Dep't finds additional VR is warranted.		
Wyo. FECWIA					Sec. may reduce prospectively the EE's monetary compensation in accordance with what probably would have been his wage-earning capacity in the absence of his failure to cooperate.	

States	benefits available when EE is required to reside away from customary residence	benefits available to/for family members	duration of benefits	referral provisions	EE penalties/responsibilities	miscellaneous
LHWCA				Sec. provides EEs receiving comp. or VR services and assists EEs in obtaining best services possible.		

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SB

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(FILE 11)

Blue Cross of Washington and Alaska

Alaska Experience  
(in millions)

<u>YEAR</u>	<u>PREMIUM</u>	<u>SUBSCRIBER BENEFITS</u>
1986	\$58.8	\$54.5
1985	57.5	48.4
1984	51.0	42.5
1983	45.7	37.4
1982	51.3	49.3

- NOTES:
1. Blue Cross Data comprised approximately by cause - 85% Illness and 15% Accident Related.
  2. Is all Non-occupational Coverage.
  3. Chiropractic Charges, currently represent approximately 4% ( $\pm 0.5\%$ ) of Total Charges; Washington and Alaska combined; Trend - appears that Chiropractic Charges are dropping as a percentage of Total Charges due to other components' increases (e.g., Hospital Charges).
  4. Blue Cross claims breakdown approximately as follows:
    - a. Facilities (e.g., hospital, skilled nursing) - 45%
    - b. Professional Providers (e.g., physician, D.O. Chiropractor, etc.) - 40%
    - c. All others (e.g., drugs, x-rays, test) - 15%
  5. Information in "NOTES" is from Staff Actuarial Personnel at Blue Cross.

1986 Paid Claims (000)

Group A&H	\$104,877
Collectively Renewable	239
All other Individual A&H	<u>2,902</u>
Sub total	\$108,018
Hospital or Medical Service Corporation*	55,507
	<u><u>          </u></u>
Total	\$163,525
Medicare (est.)	\$ 40,000
Medicaid (est.)	<u>66,000</u>
Total	\$106,000

NOTE: Missing are Self Insureds, Automobile Medical Payments, Medical Portions of Third Party Settlements, Indian Health Service, Public Health Service, Veterans, Military (and Dependents), API, Pioneer Homes, and General Relief Medical Assistance.

\* Blue Cross of Washington and Alaska, and Delta Dental

# HEALTH CARE EXPENDITURES IN THE UNITED STATES AND ALASKA

	TOTAL	PER CAPITA
UNITED STATES - 1986		
1986--Two Estimates		
A: Private	\$268.5 Billion	\$1,076
Federal	134.7	540
State & Local	55	221
Total	\$458.2 Billion	\$1,837

## ALASKA

1979--Bottelle Study

Private	\$264 Million	\$638
Federal	149	360
State & Local	67	162
Total	\$480 Million	\$1,160

1986--Two Estimates

A: Private	\$545 Million	\$1,010
Federal	307	569
State & Local	139	257
Total	\$991 Million	\$1,837
 B: Private	 \$820 Million	 \$1,520
Federal	462	857
State & Local	209	387
Total	\$1,491 Billion	\$2,763

Prepared By DHSS; Division of Planning

WORKERS' COMPENSATION CLAIMS FILED

(Ball Park Figures)

	<u>Purged</u>	<u>Total Claims</u>	<u>Total Claims(Adjusted)</u>	<u>(1 Day) Time Loss</u>	<u>(Est. 3 Days) Time Loss Adjusted</u>	<u>Fatalities</u>
1982	26,801	25,306	27,602	10,110	(x2/3)	45
1983	29,325	27,367	30,710	10,857		42
1984	29,725	28,408	31,468	10,296		44
1985	26,780	28,365	32,709	10,376		52
1986	16,500(est)	25,421	27,600	9,692		40
1987		24,078	26,500	8,904		45

*ES*  
 Elaine VanderSande, Admin. Officer  
 Workers' Compensation Division  
 465-2790

2/2/88

WORKERS' COMPENSATION RATE HISTORY  
CLASSIFICATIONS WITH MORE THAN  
\$10,000,000 FOR PERIOD 4/1/82 - 3/31/85  
BY INDUSTRY GROUP

Prepared by: ALASKA DIVISION OF INSURANCE  
November 25, 1987

MANUFACTURING CLASSIFICATIONS      †10.5%  
Rate Range from -14.0% to †36.0%

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
2003 Bakeries 18 32 70	8	7.40 †33.3%	5.55 †26.7%	4.38
2104 Seafood Processors 92 100 100	176.7	8.33 -4.3%	8.70 -12.0%	9.88
2111 Canneries 14 29 69	11.7	7.79 †16.9%	6.66 †25.4%	5.31
2802 Carpentry Shop Only 25 43 100	19.6	10.49 †25.2%	8.38 †27.0%	6.60
3632 Machine Shops 17 31 86	14.3	8.52 †11.0%	7.67 †27.0%	6.04
4207 Pulp Mfg Chemical Process 9 15 65	11.0	3.82 †35.9%	2.81 -7.6%	3.04
4299 Printing 12 23 52	16.7	4.29 †27.6	3.36 †21.3%	2.77
4304 Newspaper Publishing 16 31 65	19.2	5.74 †31.9%	4.35 †11.2%	3.91
4740 Oil Refining Petroleum 24 30 81	17.3	6.15 -14.0%	7.15 0.0%	7.15

CONTRACTING CLASSIFICATIONS +29.0%  
Rate Range from +4.0% to +54.0%

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
3365 Welding or Cutting NOC 41 64 100	28.6	11.20 +15.3%	9.71 +17.7%	8.25
3719 Oil Still Erection or Repair 38 80 100	23.3	15.53 +38.3%	11.95 +7.3%	11.14
3724 Millwright 71 47 100	38.3	21.77 +54.0%	14.14 +45.9%	9.69
5022 Masonry NOC 33 44 77	14.0	14.16 +8.3%	13.07 +12.8%	11.59
5057 Iron or Steel Erection or Repair 68 53 100	13.8	51.68 +46.7%	35.22 +42.5%	24.71
5183 Plumbing NOC 100 100 100	198.9	11.73 +28.4%	9.13 +21.6%	7.51
5190 Electrical Wiring in Buildings 100 100 100	241.2	8.73 +10.3	7.91 +37.6%	5.75
5213 Concrete Construction NOC 100 100 100	81.2	23.98 +29.5%	18.51 +37.1%	13.50
5221 Concrete Floor Driveways Sidewalks 31 50 84	24.2	9.41 +20.0%	7.84 +16.8%	6.71
5403 Carpentry NOC 100 100 100	250.6	17.51 +28.9%	13.58 +7.3%	12.66
5445 Wallboard Installation in Buildings 45 67 100	31.5	16.84 +36.1%	12.19 +41.6%	8.61
5474 Painting or Paper Hanging NOC 45 63 100	32.9	10.66 +4.0%	10.25 +13.9%	9.00
5479 Insulation Work 30 46 92	11.4	22.45 +38.6%	15.19 +30.3%	12.42
5506 Street or Road Paving Repaving 59 86 100	32.9	22.67 +39.6%	16.23 -4.0%	16.90

CONTRACTING CLASSIFICATIONS Continued

5507 Street or Road Construction 72 75 100	82.1	10.50 +54.0%	6.82 -4.0%	7.10
5538 Sheet Metal Work Erection NOC 75 96 100	64.9	17.44 +47.5	11.82 +46.0%	8.10
5551 Roofing All Kinds 61 64 100	18.7	36.21 +11.8%	32.36 +46.0%	22.17
5606 Contractors Executive Supervisors 66 92 100	102.9	6.91 +30.3%	5.30 +22.7%	4.32
5646 Carpentry Const Private Residence 100 100 100	100.8	17.66 +12.6%	15.67 +44.8%	10.82
5651 Carpentry Const Priv Res 3 Story 54 71 100	31.6	18.80 +30.4	14.41 +4.0%	13.85
6204 Drilling NOC 59 75 100	19.0	38.50 +53.1%	25.14 +9.9%	22.88
6217 Excavation NOC 100 100 100	150.1	12.67 +23.2%	10.28 +26.8%	8.11
6306 Sewer Construction 68 61 100	26.5	19.11 +4.0%	18.37 +14.4%	16.06
6319 Gas Mains or Connections Const 37 53 86	26.5	8.72 +4.0	8.38 +3.9%	8.72
6325 Conduit Construction 45 62 100	35.1	10.08 +19.8%	8.41 +4.6%	8.04
7538 Elec Light or Power Line Const 72 69 100	26.9	31.60 +42.6%	21.26 +27.6%	16.66
8227 Contractors Permanent Yard 83 95 100	100.2	11.67 +46.7%	7.95 -4.0%	3.28

OIL AND GAS CLASSIFICATIONS +43.0%  
Rate Range from +18.0% to +68.0%

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1985 Change	1987 Change	1986 Change
1320 Oil or Gas Lease Operators 100 100 100	286.7	7.17 +55.5%	4.61 -5.3%	4.67
6206 Oil or Gas Well Cementing 26 32 70	17.3	9.62 +18.0%	8.15 +6.9%	7.62
6216 Oil or Gas Lease Work by Contractor 100 100 100	133.8	24.19 +53.0%	15.81 +33.0%	11.89
6233 Oil or Gas Pipeline Construction 100 100 100	123.4	16.19 +68.0%	9.64 +19.5%	8.07
6235 Oil or Gas Wells Drilling/Redrilling 100 100 100	99.3	30.26 +18.0%	25.64 -6.1%	27.28
6237 Oil or Gas Wells Logging/Survey 36 34 88	20.5	15.15 +46.8%	10.32 +33.0%	7.76
7515 Oil or Gas Pipeline Operation 35 29 81	27.6	10.83 +51.8%	7.13 -4.8%	7.49

ALL OTHER CLASSIFICATIONS +17.6%  
Rate Range from -7.0% to +43.0%

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
1005 Coal Mining Surface 25 25 52	17.4	7.91 +6.8%	7.40 -9.3%	8.20
1165 Mining NOC Surface 34 40 100	24.0	9.27 +3.9%	8.92 +0.7%	8.86
4000 Sand or Gravel Digging 32 41 78	25.0	8.57 +22.0%	7.02 -7.9%	7.62
4361 Photographers 7 11 25	14.8	2.09 +33.1%	1.57 +13.8%	1.38
4511 Analytical Chemists 16 19 56	24.5	3.87 +28.5%	3.01 +33.2%	2.26
5191 Office Machine/Appliance Install. 18 25 69	48.1	2.21 +11.6%	1.98 +15.8%	1.71
7219 Truckmen NOC 100 100 100	87.4	20.60 +18.3%	17.41 +1.8%	17.10
7222 Truckmen Oil Field Equipment 65 53 100	21.5	20.60 +18.3%	17.41 +1.8%	17.10
7380 Drivers, Chauffeurs, & Helpers 42 54 100	60.4	10.12 +43.0%	7.08 +38.8%	5.10
7382 Bus or Taxicab Companies 34 30 100	19.0	10.87 -7.0%	11.68 +38.9%	8.41
7390 Beer or Ale Dealers 24 42 96	12.9	17.52 +43.0%	12.30 +39.0%	8.85
7405 Aircraft Scheduled Flying Crew 26 22 53	25.9	3.97 -7.0%	4.26 -42.1%	7.36
7414 Aircraft Ground Crew 44 95 100	118.7	4.52 +12.7%	4.01 +3.6%	3.87
7421 Aircraft Transportation of Employees 34 29 156	13.4	10.26 -7.0%	11.67 -11.0%	13.11

ALL OTHER CLASSIFICATIONS Continued

7422 Aircraft Air Taxi Flying Crew 61 44 100	35.4	17.60	18.92	16.31	-7.0% +16.0%
7431 Aircraft Commuter Flying Crew 26 30 62	15.2	11.78	8.24	14.23	+43.0% -42.1%
7502 Natural Gas Companies 21 23 80	18.1	7.67	6.47	4.86	+18.5 +38.8%
7520 Water Works Operation 12 18 38	11.4	5.89	4.12	3.96	+43.0% +4.0%
7539 Elec Light & Power Co NOC 22 26 73	31.4	5.42	3.88	3.61	+39.6% +7.4%
7540 Elec Light & Power Coops Rural 31 37 83	35.1	5.54	4.90	4.31	+13.0% +16.4%
7580 Sewerage Disposal Plant Operation 13 23 43	15.8	4.75	3.69	3.52	+28.7 +3.0%
7600 Telephone & Telegraph Cos. 31 49 100	62.0	3.80	3.24	2.51	+17.2% +29.1%
7605 Alarm Systems Install & Repair 10 19 54	13.5	4.41	3.57	2.72	+23.5% +31.2%
7610 Radio & Television Stations 76 70 100	139.8	5.30	4.33	3.12	+22.4% +38.8%
7704 Firemen 21 31 81	19.1	7.91	6.44	5.10	+22.8 +5.6%
7720 Policemen 74 74 100	90.5	6.60	6.43	6.13	+2.6% +4.9%
8006 Grocery Stores Retail No Fresh Meats 33 45 100	31.8	7.52	8.08	7.73	-7.0% +4.5%
8008 Clothing or Dry Goods Stores 16 31 73	68.3	1.67	1.41	1.40	+18.4% +0.7%
8010 Hardware Stores 26 39 100	61.5	4.25	3.71	2.67	+14.5% +39.0%
8013 Jewelry Stores 6 8 17	20.5	0.80	0.76	0.72	+5.2% +5.6%

ALL OTHER CLASSIFICATIONS Continued

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
8017 Store Risks NOC Retail 35 72 100	170.6	3.15 +32.3%	2.38 +3.5%	2.30
8018 Store Risks Wholesale 21 44 82	31.6	5.54 +32.8%	4.17 +8.0%	3.86
8033 Stores Meat Combined Grocery Retail 39 61 100	103.7	3.39 +4.6	3.24 +15.7%	2.80
8039 Department Stores Retail 12 26 60	30.0	2.55 +9.9%	2.32 +11.0%	2.09
8044 Furniture Stores 16 29 65	26.1	3.72 +10.7%	3.36 +6.0%	3.17
8046 Auto Accessories Stores Retail NOC 8 12 34	11.4	3.66 +26.6%	2.89 +26.2%	2.29
8058 Lumber Yard Store Employees 13 26 55	23.1	4.21 +42.7%	2.95 +24.4%	2.37
8107 Machinery Dealers NOC Store & Yard 46 58 100	54.4	6.93 +15.3%	6.01 +23.4%	4.87
8232 Lumber Yards All Other Employees 66 96 100	51.4	12.37 -4.9%	13.52 +39.0%	9.73
8292 Storage Warehouses General Merch. 31 58 87	35.0	5.36 -4.8%	5.63 -11.0%	6.32
8293 Storage Warehouses Furniture 46 72 100	22.8	18.64 +16.1	16.05 +19.1%	13.48
8530 Gasoline or Oil Dealers 34 39 100	33.0	9.59 +45.0%	6.71 +39.0%	4.83
8385 Bus or Taxicab Garage 15 24 49	12.7	6.21 +15.8%	5.36 +9.2%	4.91
8387 (*8380) Auto Accessories Servc Statns 36 62 100	54.9	8.33 +32.0%	5.48 +8.1%	5.07

\* Note: Codes 8387 & 8391 Discontinued. New Class Code is 8380.

ALL OTHER CLASSIFICATIONS Continued

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
8391 (*8380) Auto Garages & Repair Shops 100 100 100	152.4	8.33 +2.3%	8.14 +36.6%	5.96
8393 Auto Body Repairing 16 23 60	13.6	7.41 +24.5%	5.95 +24.7%	4.77
8601 Engineers or Architects Consulting 50 77 100	198.8	2.92 +24.2	2.35 -7.1%	2.53
8606 Geophysical Exploration Seismic 32 53 100	33.3	9.22 +23.5%	7.46 +37.1%	5.44
8607 Geophysical Exploration NOC 24 27 65	21.7	6.33 +18.0%	5.36 +35.4%	3.96
8742 Salesmen, Outside Messengers 60 73 100	594.0	1.11 +27.5%	0.87 +1.1%	0.86
8748 Automobile Salesmen 13 16 40	47.1	1.57 +43.0%	1.10 -1.8%	1.12
8755 Labor Unions 13 11 29	27.5	2.09 +39.3%	1.50 -5.7%	1.59
8803 Travelling Auditors, Accountants 5 7 17	43.4	0.47 +42.4%	0.33 +13.8%	0.29
8810 Clerical Office Employees 100 100 100	2330.0	0.68	0.68 0.0%	0.76 -10.6%
8820 Attorney 14 19 46	143.2	0.54 +28.5	0.42 -10.6%	0.47
8829 Nursing Homes 26 46 100	31.1	8.57 +9.1%	7.85 +38.9%	5.65
8832 Physicians 16 27 74	191.2	0.47 -6.0%	0.50 +4.2%	0.48
8833 Hospitals Professionals 42 58 100	224.5	2.25 +42.4%	1.58 +13.7%	1.39

\* Note: Codes 8387 & 8391 Discontinued. New Class Code is 8380.

ALL OTHER CLASSIFICATIONS Continued

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
8835 Public Health Nursing Assns 20 36 66	39.1	3.24 +16.5%	2.78 +0.7%	2.76
8868 Colleges, Schools, Professional 36 66 100	611.9	0.66 +1.5%	0.65	0.65 0.0%
8901 Telephone or Telegraph, Office Empl 13 14 40	45.6	1.11 +2.7	1.06 +33.3%	0.81
9014 Buildings Operation by Contractor 30 54 100	48.9	6.00 +42.8%	4.20 +13.5%	3.70
9015 Buildings Operation by Owner/Lessee 36 67 100	49.5	9.78 +43.0%	6.84 +34.4%	5.09
9033 Housing Authorities 12 24 48	17.2	4.28 +22.6%	3.49 +21.1%	2.88
9040 Hospital, All Other 38 61 100	44.6	11.34 +32.0%	8.59 +37.7%	6.24
9052 Hotels 44 69 100	86.3	6.06 +18.3%	5.12 +14.3%	4.48
9058 Hotel Restaurants 39 72 100	84.6	6.82 +43.0%	4.77 +23.9%	3.85
9061 Clubs NOC 10 20 55	17.8	4.14 +28.9%	3.21 +14.3%	2.81
9063 YMCA YWCA 6 15 35	13.1	2.77 +19.3	2.32 +9.4%	2.12
9078 Commissary 88 100 100	89.4	12.40 +31.0%	9.46 +38.9%	6.81
9079 Restaurants 64 100 100	317.6	4.82 +34.6%	3.58 +25.6%	2.85
9101 Colleges or Schools All Other 39 64 100	93.6	3.62 +6.7%	3.39 +11.5%	3.04

ALL OTHER CLASSIFICATIONS Continued

Code Classification Credibility	Payroll (millions)	Rates per \$100 Payroll		
		1988 Change	1987 Change	1986
9402 Street Cleaning 20 27 70	13.4	8.80 +12.1%	7.85 +13.3%	6.93
9403 Garbage Collectors 28 38 91	16.5	9.60 -4.0%	9.99 +9.2%	9.15
9410 Municipal or State Employees 20 41 100	21.3	8.03 +10.0%	7.30 +36.2%	5.36
9519 Electrical Appliance Install/Repair 15 22 45	17.1	4.29 +13.1%	3.79 +14.5%	3.31
9586 Barber Shops, Beauty Parlors 4 11 18	19.1	1.04 +40.5%	0.74 +5.7%	0.70

1910  
1911  
1912

1913  
1914  
1915

5

The table consists of numerous vertical columns and horizontal lines, forming a grid structure. The content within the cells is almost entirely obscured by heavy noise and dark artifacts, rendering the data unreadable. Only the structural elements of the table are visible.

# Preface

The objective of this booklet is to give a description of how workers' compensation insurance rates are determined. The ratemaking process—the pricing of workers' compensation coverage—is a technical function and, as such, has traditionally been the domain of specialized technicians called actuaries. Unfortunately, this has too often resulted in rate determination being regarded as mysterious, even within the insurance community itself. While ratemaking is complex, it is not mysterious. Rates are mathematically-based, producing an objective pricing system which is demonstrably sound and fair. As such, removing any mystique can play an important role in alleviating confusion and skepticism, thus improving the conception of workers' compensation insurance.

The material contained herein is not intended to popularize actuarial science. It reveals no profound secrets nor will it magically transform its readers into actuaries. The goal is simply to make the basic ideas utilized in pricing workers' compensation coverage more familiar and understandable. Towards that end, the emphasis is placed on concepts rather than on mathematical formulas. Once the basic ideas are understood, the merits of the methodology speak for themselves.

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## Ratemaking... The Pricing of Workers' Compensation Insurance

### What Is Workers' Compensation?

With the advent of the Industrial Revolution came a growing realization that the price for increased overall living comfort was being paid, in part, by the suffering of workers. Not only did the workplace become more distinctly removed from the home, but factories and mass employment introduced into the work environment a myriad of unforeseen dangers. In the late nineteenth century, courts began to make employers responsible for such injuries, giving rise to the need for employers' liability insurance. Because the worker had to sue to recover, and legal defenses were available to employers, the need was recognized for laws to protect workers as a result of injuries incurred in the course of their jobs. Beginning in 1911 with Wisconsin, other states rapidly adopted workmen's (now workers') compensation laws which automatically assured the injured worker partial indemnification without the need to prove fault. On-the-job injuries were recognized as part of the cost of producing goods and services, and workers' compensation insurance fairly allocates this cost to employers.

### What Is Workers' Compensation Coverage?

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1. Compensates for loss from work-related injury
2. Benefits are specified by state laws
3. Coverage is mandated by law

Today, all states have workers' compensation laws providing for complete medical expenses and a weekly indemnity (loss of earnings) benefit for the injured worker. The coverage now extends to almost all types of employment, to employers with one or more workers, and includes coverage for both injury and occupational disease. By law, employers must provide the benefits to their workers, and in most cases, this is done through the purchase of a workers' compensation policy under which the insurance carrier assumes the complete liability of the employer.

## Who Benefits?

Although, from an historical perspective, the introduction of workers' compensation benefits is a landmark in the social and economic progress of laborers, it is incorrect to regard this benefit system as being "one sided." This program is designed to protect the interests of both the worker and the employer. On the one hand, it assures that payment is made to injured workers without regard to who or what may have been at fault in causing the injury. On the other hand, in exchange for the security of guaranteed compensation, the worker relinquishes his right to file a damage suit against his employer in return for the benefits provided for in the statute. In making workers' compensation benefits the exclusive remedy, employers are provided a protection without which even sizable corporations would find doing business hazardous, and the owners of small businesses could be subjected to potential personal financial ruin from a single claim. The employer benefits by the substitution of a relatively small, known expense (premium) for the cost of the large, unbudgeted accident.

Finally, because the relative price charged is based upon the nature of the employer's business, each industry pays in relation to the likelihood of injury. This provides an incentive for work safety and accident prevention, with society, in general, enjoying a safer work environment.

## Who Pays?

The burden of funding the benefit system is placed on the business community through the insurance mechanism which charges employers an annual premium for this coverage. This appears fair, since employers are, in large part, responsible for the safety of their workers in plants and offices. One important consequence from this perspective is that this burden of premium enables the pricing methodology to introduce the element of accountability, thereby promoting job safety in an effort to reduce job-related injuries. A firm's payroll is an excellent measure of the occurrence of job-related injury.\* Accordingly, an employer's annual payroll, in \$100 units, is multiplied by a price or "manual rate" to determine his annual premium contribution to fund the benefit system. Where appropriate, the premium is adjusted or modified to reflect the occurrence of injuries in the applicable work activity and the individual employer's safety record.

## What Does The Price Cover?

Generally speaking, the price of any product must be sufficient to cover the cost of producing the item and the cost of delivering the product to the marketplace. Workers' compensation insurance is no different in this respect. The product to be delivered is dollars. It is dollars in the form of weekly benefits paid directly to the injured worker, and dollars in the form of payment to doctors, hospitals, and others for medical and rehabilitative services provided to the injured worker. These dollars represent the product costs to the insurance carrier.

Insurance, like any other enterprise, has certain costs of doing business. These costs are necessary to operate the benefit system. They encompass items such as expenses incurred in obtaining business, including commissions to producers; the

## Business Overhead = Expense Allowance

1. Acquisition
2. General
3. Premium Taxes
4. Claims Adjustment
5. Contingency and Profit

overhead or operating costs of an insurance company (e.g., rent, lighting, salaries, etc.); taxes (other than income); expenses incurred in the settlement of claims; and a provision for profit and contingencies.

Therefore, the rates for workers' compensation coverage must:

1. Provide sufficient funds for benefits, and
2. Provide sufficient funds to operate the system which will deliver these benefits.

A key question, therefore, becomes: What constitutes "sufficient" funds? To answer this, one must understand the nature of the funding mechanism itself.

## Workers' Compensation— A Pre-Funded System

The workers' compensation benefit system is pre-funded. This means that the premiums from policies written during a given year are intended to meet all future claim payments made under these policies. This is in direct contrast to programs such as Social Security which use a "pay-as-you-go" funding mechanism. Pre-funding is designed to provide the maximum security to workers so that benefits never will be prematurely terminated or reduced.

The notion of pre-funding and its implications on costs are difficult to convey to policyholders and to the public. The price paid for typical store produce reflects production and delivery costs at the time of purchase: It would be ludicrous for a grocer to demand an additional 10¢ per pound today for bananas sold last year. When dealing with a product such as workers' compensation insurance, it is difficult for the consumer-policyholder to appreciate that the current cost for coverage must suffice to pay all that year's claims, regardless of how far into the future benefit payments on these claims continue.

If the rates charged in the past were inadequate, as has been true, unfortunately, in recent years, there can be no going back to policyholders to recoup the shortfall. Nor can that loss be passed along to the next "generation" of policyholders. If it is lost, it is lost forever. By the same token, if there is more than enough premium, profits are not returned.

\*A complete discussion of the use of payroll as the basis of premium can be found in a booklet, "The Basis of Premium For Workers' Compensation Insurance," published by the NCCI.

## Risk Vs. Reward

Since there is no guarantee that premium collected will suffice to meet benefit claims and operating costs with no opportunity for recoupment, it follows that a very real risk is involved in the writing of workers' compensation insurance. Insurance is a business and, certainly, no business enterprise will knowingly assume a risk without an incentive to do so. Accordingly, it is necessary that the price for coverage provide such incentive. The price or rate envisions, as mentioned above, a profit and contingency provision (2.5% of premium) which is designed to provide a buffer to financial loss in the event of inadequate rates. The profit and contingency provision incorporated in the pricing of this line of insurance is very low and in and of itself does not present a reward nearly commensurate with the risk assumed. Use of this provision recognizes the fact that, consistent with the pre-funded nature of the system, premiums are paid "up front" while benefit payments are made over a period of years, thereby giving the carrier an interest-earning opportunity. It is this investment earning potential which provides the true incentive for writing this insurance and provides the reward for assuming the risk.

## What Is Meant By The Phrase, "Premium Level"?

After describing how the benefits and expense costs are to be funded, the next question which arises is: Does the current price charged in the state under review provide sufficient funds to cover future benefits and expenses? As was mentioned, the book price, or manual rate, is the cost of workers' compensation insurance per \$100 of payroll. Actually, a single price for a state does not exist but, rather, there is a specific price or rate for each of approximately 600 work classifications, with each class representing a specific type of activity.

For a given insured, multiplying his payroll by the current rate for his classification will produce a premium figure. The accumulation of premium for all insureds produces a total statewide premium at the current rate level. This premium figure is referred to as the state "level of premium" or "premium level."

The question which the ratemaker must address, therefore, becomes: Does the current premium level provide sufficient funds for future benefits and expenses?

## The Ratemaker's Dilemma

In addressing this question, it is important to realize that when pricing in the context of a pre-funded system, one must project benefit and expense costs in advance.

Consider the following example, keeping in mind that it is customary to set rates to be applicable for one year into the future. In April of 1982, a ratemaker may be asked to update rates for use in 1983. Well before the beginning of 1983, the ratemaker is required to address the question of what is the proper premium level for 1983. This answer must be based upon a knowledge of the number of dollars which will be needed to pay benefits and expense costs for policies issued during 1983. When will the total amount needed be known? Certainly, all claims incurred under 1983 policies must be closed before the *exact* amount can be determined. When, then, will all such claims be closed? Due to the nature of workers' compensation insurance, some claims may not be closed for many, many years.\* The ratemaker faces a difficult problem. He must decide in 1982 how many dollars will be needed for claims covered by policies written in 1983, despite the fact that the actual value of some of these claims will not be known for a number of years.

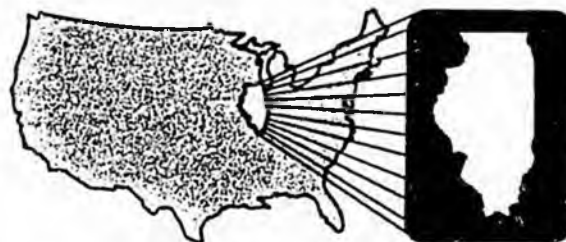
Obviously, he cannot wait to know precisely how many dollars will be necessary for 1983 claims. The ratemaker must, during 1982, estimate the value of these claims. In doing so, he makes it possible to decide upon the proper premium level for 1983.

It is fundamental that in order to make such an estimate, data from the most recent past must be used as the best indicator of what is expected for the period during which the rates will be in effect.

## What Data Are Available?

To begin the ratemaking process, data from the recent past must be collected. The National Council on Compensation Insurance (NCCI) is the licensed statistical agent for workers' compensation in most states. The NCCI collects data periodically from its member insurance companies. *For each individual state*, the data submitted take two forms: Financial Data and Unit Statistical Plan Data.

### Types of New Data



1. **Statewide Financial Data**—to determine what state average price level change is needed.

2. **"Unit Plan" or Policy-by-Policy Data**—to determine how the average price change should be distributed.

\*Workers' compensation coverage, in some instances, provides lifetime benefits for individuals permanently and totally incapacitated as a result of an industrial accident.

A state's financial data are used to determine the required overall change in the statewide premium level. This type of information is sent to the NCCI in response to periodic data requests. Similar information of a financial nature is sent to the State Insurance Departments as part of the Annual Statement and Insurance Expense Exhibit. These are sworn company documents, which must be filed annually, according to regulation. Financial reports include the carrier's overall premium and benefit cost experience, reported separately for each state.

On the other hand, the Unit Statistical Plan (USP) figures are detailed policy information. In fact, a USP report is required for each policy written. It includes individual employer payrolls, premiums, and details of all compensation claims. The information obtained from the USP plays no part in determining whether the overall level of premium in the state is too high or too low. Rather, once the financial data have been utilized to make this determination, the highly-detailed USP data are used to apportion the average price change among the various work classifications. The data are also used in adjusting the price of coverage for larger, qualifying employers by means of a mandatory experience rating program.

## Data Validation

Data are the lifeblood of any ratemaking process. NCCI, therefore, expends a considerable amount of effort making certain that the data it uses are accurate. The checks involved in validation must be completed before any conclusions are drawn from the data.

While the details of the validation routines are beyond the scope of this booklet, it may be interesting to simply describe the dimensions of the validation effort. The NCCI is licensed in 32 jurisdictions, and has approximately 600 member companies writing approximately 1,300,000 policies annually. Since each member is required to submit many reports for each state in which it does business, it is easy to see that the number of reports which must be reviewed is enormous. The NCCI employs approximately 100 individuals to review data submissions for quality.

While computers must be used to assist in this review and validation, every step is under the watchful eye of trained technicians and actuaries, who check the data to certify its validity. Anomalies are questioned and returned to the carriers for correction, if necessary.

## Financial Data

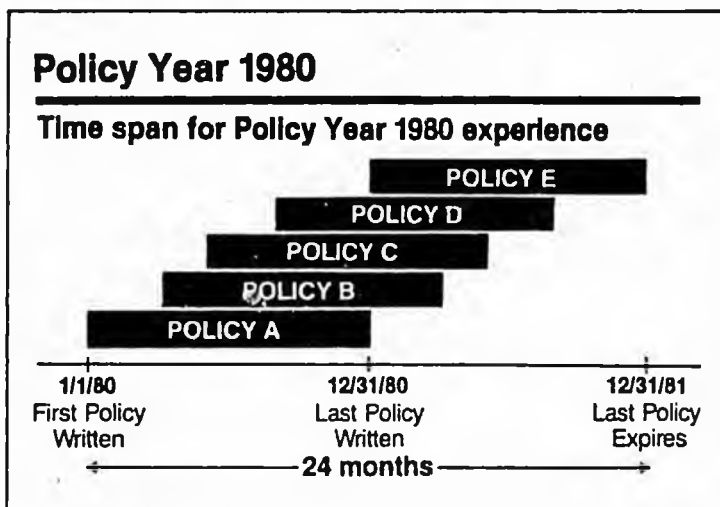
Returning to the need for determining whether the current premium level is proper, recall that it is the financial data which are relied upon to evaluate the propriety of the current premium level. It must be emphasized that when a premium level analysis is performed for a state, the only data used are that state's own premium income and claim cost experience. There are several types of financial data, including policy year, calendar year, and calendar/accident year.

## Policy Year Data

As can be inferred from the name, policy year data are organized according to the date upon which the policy becomes effective. For example, policy year 1980 refers to premium and benefit claim costs from all policies whose coverage began during 1980. Depicted below are the terms for several such policies, each providing standard, one-year coverage. The distinguishing characteristic is simply that the date when coverage begins falls in 1980.

<b>Policy Year 1980</b>		
<b>Sampling of policies from Policy Year 1980</b>		
Policy	Coverage Begins	Coverage Ends
A (first)	1/1/80	1/1/81
B	3/7/80	3/7/81
C	5/1/80	5/1/81
D	8/12/80	8/12/81
E (last)	12/31/80	12/31/81

This coverage can be represented in a more pictorial way.



Policy year 1980 illustrates that experience in a single policy year actually takes place over a 24-month time span, and that the final policy included in policy year 1980 does not terminate until the end of 1981. It follows that for a ratemaker performing an update during 1982, 1980 is the latest policy year available.

Policy year data are analogous to considering the income and outgo of funds on items manufactured during a single fixed year, regardless of when the items are sold. Policy year 1980, therefore, encompasses the input from all premiums and the outgo from all benefits resulting from policies becoming effective during 1980.

## Calendar Year Data

Calendar year data reflect another way of organizing information. It is done by organizing financial transactions according to the date on which they took place. Calendar year experience most nearly resembles the data one is accustomed to seeing in the financial reports of all types of businesses, whether or not they are related to insurance. Calendar year 1981 refers to premium and benefit claim costs from all financial transactions which occurred during 1981. Calendar year 1981 is available at year's end and is the most current information available during early 1982.

### Calendar Year 1981

#### Time span for Calendar Year 1981 experience



1/1/81  
First  
Transaction  
Occurs

12/31/81  
Last  
Transaction  
Occurs

For a business enterprise, calendar year data are analogous to considering the income and outgo of funds which occurred during a fixed year, regardless of when the items sold were manufactured. Actuaries are interested in calendar year results because they provide a meaningful report on the company's economic gains or losses for the year in much the same way as would an annual income statement prepared by an accountant.

## Calendar/Accident Year Data

Calendar/accident year refers to a third way of organizing financial data. The term "calendar" pertains to premiums being organized according to transaction date. The term "accident" pertains to benefit claim costs being organized according to the date on which the accident took place. For example, calendar/accident year 1981 refers, on the premium side, to 1981 calendar year premium, while the benefit claim costs would encompass claims from all accidents occurring during 1981.

Calendar/accident year data are not currently utilized in the pricing of workers' compensation insurance. Investigation is now underway to determine how this data might best be utilized. Currently, the financial data used in the overall premium level determination are policy year and calendar year.

Since policy year data match premiums and benefits from an identified collection of policies, it provides a very stable and natural base upon which to structure a premium level analysis. As is evident from the preceding narrative, however, the experience from a policy year spans a 24-month period. Calendar year data, on the other hand, encompass all transactions of the past year and, therefore, become available as of year's end. The use of calendar year data, therefore, enables the ratemaker to incorporate more recent information into the premium level analysis and thereby increases responsiveness of the pricing mechanism.

## Adjustments To Data

1980 policy year data and 1981 calendar year data have been described. These are historical accountings. They can reveal whether or not a proper rate level was used for a particular period in the past and, if not, what the rate level should have been. These data, however, *cannot* reveal what the proper rate level should be for a future period unless certain adjustments are made.

### Adjustments to Policy Year Data

#### Premium:

1. Effect of recent price changes
2. Additional premium development (e.g., from late audits)

#### Benefit Costs:

1. Recent statutory benefit changes
2. Additional benefit cost development

Taking policy year 1980, for example, the premium must be adjusted for two conditions. First, premium must be adjusted for the effect of any rate changes in the state under review, which have already taken place on or after January 1, 1980, the date when the first policy from policy year 1980 went into effect. The purpose of this adjustment is to determine what the premiums would have been if all the premiums had been earned under the latest approved prices which are, after all, the ones under analysis and the ones which are being updated. Actuaries call this "adjusting premium to current rate level."

The second adjustment is made to reflect what is called premium development. As mentioned earlier, the first step in determining how much premium an employer pays is to multiply the manual rate, or price, times the payroll in units of \$100. Of course, the final payroll earned under the policy often is not known until after the policy expires and is audited. The difference between the estimated premium and the premium based upon final audit is the major contributor to premium development. By tracking the premium movement in a state for earlier policy years, an estimate can be made of how much the preliminary report of the most recent policy year's premium will change when the final results are known.

Likewise, policy year 1980's benefit claim costs must also be adjusted in two ways. First, they must be adjusted to reflect the cost impact of statutory benefit changes which have become law subsequent to the start of the policy year. This is called "adjusting benefits to current law level."

Second, benefit costs, like premium, must also be adjusted by a development factor. This is best understood through an explanation of the components of benefit costs.

Policy year 1980's incurred benefit claim costs are the sum of what has been paid to date under claims arising from policies beginning in 1980, plus what the insurers still owe or still have to pay under those policies. The amount insurers still owe to injured workers is often called the "amount outstanding" or the "amount reserved." These terms are used interchangeably. Therefore, the incurred benefit costs can be expressed in any of the following three ways:

Incurred Benefit Costs = Amount Paid + Amount Still Owed  
 Incurred Benefit Costs = Amount Paid + Amount Outstanding  
 Incurred Benefit Costs = Amount Paid + Amount Reserved

Thus, loss reserves in the insurance business are analogous to accounts payable in other types of business. Of course, when the reserve is for lifetime weekly benefits or for future medical expenses, it is obvious that there must be some uncertainty regarding precisely how much money ultimately will be paid on any particular claim. Companies, using accepted actuarial principles, make their best estimate of how much should be set aside for future payments on cases which are still open. Of course, once every claim has been closed, then all of the incurred benefit costs are paid, and the outstanding costs, or reserves, for the policy year are zero. By tracking the difference between the first estimates of incurred benefit costs and final benefit costs for older policy years in a state, a "development factor" can be determined. This development factor adjusts benefit costs from those initially reported to their ultimate value according to the most recent pattern of how benefit costs have matured over time. This factor is applied to the latest policy year's incurred costs.

### Adjustments in Calendar Year Data

- Premium:**  
Effect of recent price changes
- Benefit Costs:**  
Recent statutory benefit changes

Calendar year premiums and benefit costs are also adjusted to reflect the latest rate level and benefit level, respectively. Unlike policy year data, calendar year data, by definition, reflect a specific collection of closed financial transactions and, therefore, do not require the adjustment known as "development."

Having obtained both premium and benefit costs which reflect the current conditions, a test is performed to see how well the current prices are functioning and to determine, on an overall basis, what changes, if any, are needed.

### The Test For Premium Level Adequacy

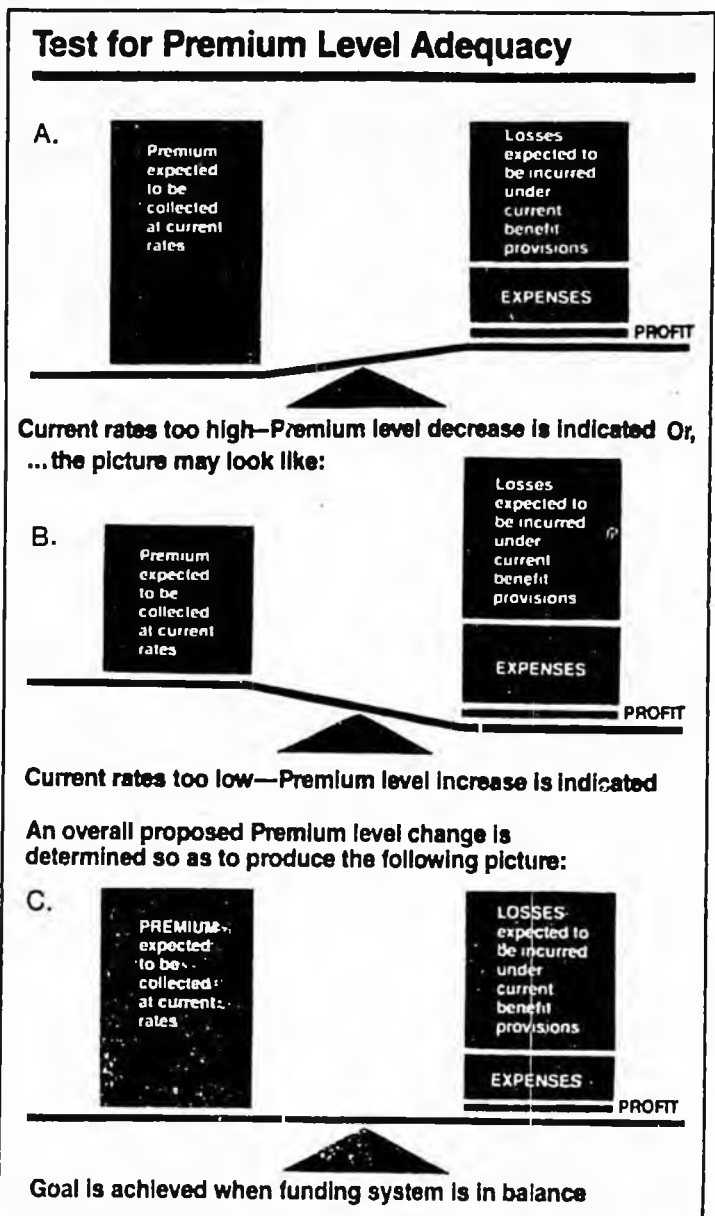
Now, two approaches to testing the current rate level for adequacy are presented. The first conceptually shows the intent in performing this test. The second is quantitative and works through a derivation of the necessary change in premium level.

#### Conceptual Approach

Conceptually, the test of adequacy may be viewed as placing income and outgo on a scale to see if the two are "in balance." This may be expressed in the illustration below, which depicts the process which yields the desired situation in which a proper rate level has been achieved.

It should be emphasized that this illustration uses data which have already been actuarially adjusted—the premium expected to be collected is based upon the *current* rate level, and the benefits expected to be incurred are based upon the *current* benefit level.

As illustrated below, the premium expected to be collected at the current rate level is larger than the costs expected to be incurred under current benefit provisions. In this example, since the current price of workers' compensation insurance generates funds more than sufficient to provide for benefits and expenses, the conclusion is that the current price is too high—a rate decrease is warranted. (A)



On the other hand, the premium level analysis may produce a picture illustrated above which displays a situation calling for a rate increase—the premium expected to be collected at the current rate level is insufficient to fund the benefit system. (B)

In each situation, the price is not proper. A price is sought which will provide just enough premium dollars to finance the benefits and the expenses. Therefore, each situation leads to a required change in the price to achieve the balanced picture depicted above. (C)

## Quantitative Approach

Now that the objective has been conceptually visualized, a hypothesized situation will be used to quantitatively determine a rate level change.

The first step in this calculation is the computation of a policy year and a calendar year "loss ratio." A "loss ratio" or "cost ratio" is simply the adjusted benefits divided by the adjusted premium and represents that portion, or percentage, of the premium dollar which is needed to finance benefit costs.

## Policy Year Cost Ratio

After the actuarial adjustments referred to earlier have been applied to policy year 1980 premium and benefit figures, the policy year cost ratio is computed. For simplicity, refer to the following hypothetical example.

Assume: Policy Year 1980's Adjusted Benefits = \$82,000,000  
 Policy Year 1980's Adjusted Premiums = \$100,000,000  
 Then: Policy Year 1980's Cost Ratio = .82 or 82%  
 (\$82,000,000/\$100,000,000)

This 82% cost ratio can be interpreted in the following manner: Based upon policy year 1980's experience, actuarially adjusted to be reflective of current conditions, \$82 of benefits can be expected to be incurred for each \$100 of premium.

## Calendar Year Cost Ratio

As with policy year data, calendar year experience is actuarially adjusted to current conditions. A comparison of adjusted benefits to premiums will then produce a cost ratio for calendar year 1981. For example:

Assume: Calendar Year 1981's Adjusted Benefits = \$80,000,000  
 Calendar Year 1981's Adjusted Premiums = \$100,000,000  
 Then: Calendar Year 1981's Cost Ratio = .80 or 80%  
 (\$80,000,000/\$100,000,000)

This hypothetical cost ratio can be interpreted in the following way: Based upon calendar year 1981's data, actuarially adjusted to be reflective of current conditions, \$80 of benefits can be expected to be incurred for each \$100 of premium.

## The Average Cost Ratio

Two estimates of how the current premium level compares with current benefit costs have been produced; one based upon 1980 policy year experience, and the other upon 1981 calendar year experience. The ratemaking procedure calls for a blending of these estimates. This is accomplished through an arithmetic average of the policy year and calendar year cost ratios.

- 1) Policy Year Cost Ratio .82
- 2) Calendar Year Cost Ratio .80
- 3) Average Cost Ratio .81

This value of .81 or 81%, means that, based upon experience, \$81 of benefits can be expected to be incurred for each \$100 of premium.

## Target Cost Ratio

In order to evaluate the significance of the average cost ratio, a standard against which it can be measured is required. This standard is referred to as the target, balance point, or permissible cost ratio. It is the portion of each premium dollar available to finance benefits.

### Balance Point Ratio



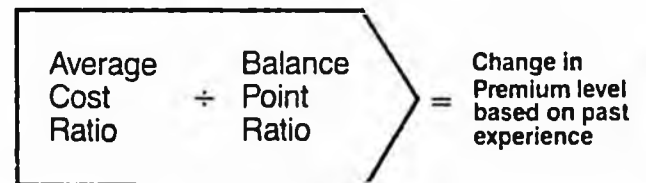
= the portion of each premium dollar available to finance benefits

As mentioned earlier, there are certain expenses which must be met in order to deliver workers' compensation benefits. If it is assumed that these costs account for 20% of each premium dollar, then it follows that 80% of each premium dollar will be available for financing the benefits themselves. Eighty percent then becomes the balance point or target cost ratio in the hypothetical example.

## Necessary Rate Level

In general terms, the next step in the ratemaking process is to compare the average cost ratio with the target cost ratio. If the average cost ratio is greater than the target cost ratio, an increase is indicated, while if the average cost ratio is less than the target cost ratio, a decrease is indicated.

$$.81 \div .80 = 1.013$$



Thus, in the example, 81¢ out of the premium dollar is currently needed for compensation benefits, but only 80¢ is now available. This means that the current price is not sufficient to fund the system. Indeed, by dividing the 81¢ needed by the 80¢ available, a factor of 1.013 is determined which is the necessary adjustment to bring the premium level up to current needs: in this example, a 1.3% increase. Had the cost ratio shown a current need of less than the 80¢ balance point, then a premium level decrease would have been indicated.

This estimate of the required adjustment is predicated upon the current rate level and the current statutory benefit provisions and is based upon historical data from policy year 1980 and calendar year 1981.

## Trend Factors

Since the objective is to produce rates to be used during 1983, it is important to consider whether the price level need for this future time will differ from the present. When the information available enables a projection of price level need, the ratemaking methodology incorporates this through the application of a "trend factor." One consideration which may cause future price level needs to change is *future* growth in payrolls. Other considerations such as changes in the frequency or severity of claims due to benefit utilization, inflation, etc. are also relevant. All of these considerations are incorporated to determine the trend factor.

### Trend Factor

#### Reflects:

##### Premium

- Changes in payrolls

##### Benefit Cost

- Changes in duration of claims
- Changes in the frequency of claims
- Inflation rate

The trend factor is based upon a *comparison* of movements in benefit costs with movements in payrolls. Suppose, for example, that an examination of data shows that payrolls are, indeed, increasing. Since premium is based upon payroll, even by maintaining the current rates, a greater amount of premium will be generated in 1983 than was previously available.

On the other hand, suppose the review also shows that benefit costs are rising as well. Higher costs for 1983 than was the case for either 1980 or 1981 are also anticipated. The trend factor accounts for these *anticipated* movements in payrolls and benefit costs and enables the premium level need for 1983 to be estimated more accurately. Should the trend analysis reveal that benefit costs are growing faster than payrolls, then the 1.3% increase, based on historical data adjusted to current conditions, would be inadequate, and a greater increase is indicated. On the other hand, if payrolls are growing faster than benefit costs, then the 1.3% increase overstates the premium need and is lowered accordingly.

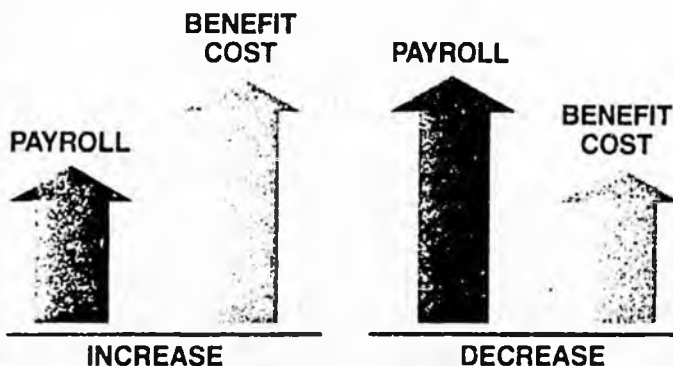
It should be understood that even in states in which application of a trend factor is not practicable, payroll growth is still reflected in the determination of rates. This is so because the most current premium figures are used which, in turn, reflect current payrolls.

To summarize, an overall adjustment has been determined which, when applied to the current rates, will produce a new set of rates. These updated rates will, when applied to 1983 payrolls, generate the premium required to pay 1983 claims. This represents the overall updating of rates based upon newly available data.

## Updating For Changes In Statutory Benefits

To this point, it has been assumed that 1983 claims will be compensated according to the current statutory benefit provisions. There is, however, a further source of information available to the ratemaker. Suppose, as is often the case, that the ratemaker is aware of a future adjustment to statutory provisions. Pursuing the hypothetical example one final step further, assume that a change in the benefit provisions will occur on January 1, 1983. Since rates for application during 1983 are being produced, it is appropriate that this benefit revision be accounted for in the proposed rates. To achieve this, a cost evaluation of the change is performed for each type of injury—death, permanent total disability, permanent partial disability, temporary disability, and medical. Based upon how the various injury types are distributed, a combined impact of the benefit change on benefit cost is determined. If the new benefits result in increased cost, the indicated premium level adjustment is increased accordingly and, if the new benefits produce a decrease in cost, the indicated premium level adjustment is lowered.

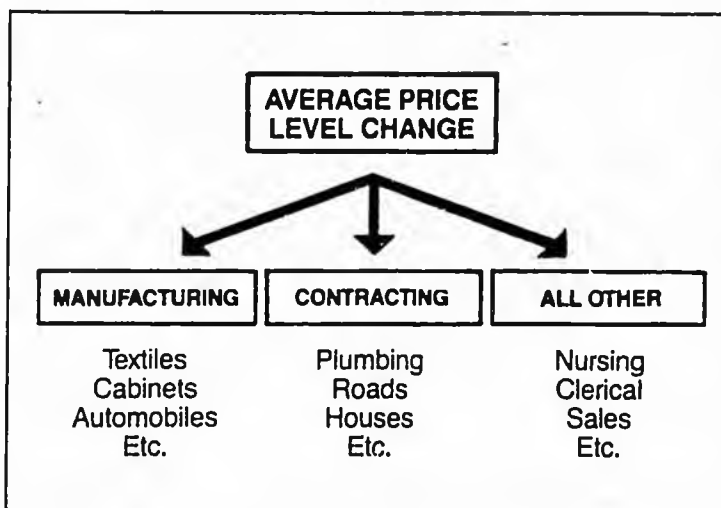
### Trend Factor



## Distribution Of Overall Rate Level Change To Individual Classifications

The fact that the overall level of premium in a state may need to be changed does not mean that the rates for each and every classification should be adjusted by the same amount. The overall indicated change is simply the average change which is necessary to generate the proper premium for the entire state. As mentioned before, there are about 600 work activity classifications. How, then, should the average change be distributed to these classifications? The process is accomplished in two steps. The first step is to calculate the needed change by "Industry Group."

Each classification is assigned to one of three broad categories based upon the work activity which that classification describes. These categories include manufacturing, contracting, and all other classifications. These three divisions are referred to as "Industry Groups."



If, for instance, the premium and benefit experience of the Manufacturing Industry Group was better than the overall experience, then that group's change will be less than the statewide change (less of an increase or more of a decrease). However, if an industry group had experience which was worse than the statewide experience, then its average change would be higher. It is possible that even when rates are increased overall, a particular industry can, on average, experience a decrease in rates.

It should be emphasized that the adjustment computed for an industry group is still an average; it represents the average change that job classifications in that group will receive.

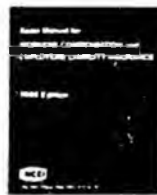
The second step is to distribute the average industry group changes to the individual classifications such as machinists, bakers, plumbers, or nurses. The purpose of this classification system is to group employers so that the manual rate reflects the average exposure common to the business described. It is the business of the employer within a state that is classified, not the separate employers, occupations, or operations within the business. Since the classification's rate represents the average behavior of all members of that class, it is a fair and equitable way of distributing the cost of insurance.

How useful the latest experience in a particular classification can be for determining the rate in that class depends upon the volume of experience which has occurred in the class. If, for instance, within a particular class, the premium collected over the past three years totals \$3,000, while a claim occurred costing \$30,000, it is not proper to conclude that the price for that class should be increased ten-fold, based solely upon that experience. This is because the data available are not statistically significant. However, the greater the volume of data that is available, the greater the reliability for predicting future occurrences—and for setting prices. Actuaries call this "statistical significance" or "credibility."

If the operations placed under a particular classification have reported doing a large volume of business, the recent experience for the classification is regarded as fully credible, that is, it constitutes, in and of itself, the best means for future projection. If the volume of business is small, then the recent experience may have little or no credibility—the data are too limited from which to draw any conclusions. For in-between volumes of data, actuaries assign partial credibility values. If the latest three years of data for a class generate full credibility, no other information is necessary for determining that classification's rate change. But, as is the usual case, when only a lesser volume of data is available, this information must be supplemented by two other sources. The first source comes from the currently applicable rate, and the second source comes from the experience for that classification on a nationwide basis, properly adjusted to the conditions of the state being reviewed. It is worth noting that before the proposed schedule of prices by classification is released, a detailed test is made to insure that precisely the average price level change previously determined for each industry group is, in fact, achieved.

## The "Manual Premium"—A Starting Point

What has been discussed so far is the updating of manual rates which are applied to payrolls to produce "manual premium." But, for the major share of the premium income earned, the manual rate is only the starting point for determining what an individual employer will pay for his workers' compensation coverage. The final premium cost to the insured depends on the operation of other programs, some mandatory and some optional.



**Manual rate is starting point for determining cost of Workers' Compensation Insurance**

### Additional Factors:

1. Prospective experience rating
2. Premium discounts
3. Optional retrospective rating
4. Dividends to policyholders

## Experience Rating Plan

For example, the classification system subdivides insureds according to product, process, operation, type and character of business, etc. But the insureds who populate these classes can differ in a variety of ways: how the operation is performed, the manner in which the product is manufactured, and the implementation and operation of safety programs, to name a few. These factors will all affect the propensity for an injury to occur. In order to reflect these differences and to encourage the safe operation of a workplace, an "Experience Rating Plan" is applied.

### Experience Rating

1. Only applicable to insureds over eligibility point
2. Adjusts manual rate by comparison of employer's actual past experience to average of "expected" experience
3. Impact is proportional to the size of the insured

Experience rating is a mandatory program applied only to insureds who are large enough for the individual insured's own past experience to be an indicator of how the benefit cost for this insured will differ from the average in the future. For the smallest sized employers, no statistical significance can be assigned to their past history. Thus, they are charged the manual rate.

An insured with perhaps one-half million dollars of premium per year is of sufficient size that the costs he has generated in the past are a very reliable indicator of the cost he can be expected to generate in the future. For smaller employers, their own experience is a good partial indicator and, thus, is assigned a partial weight. Experience rating is a comparison of the employer's own past actual experience to the expected or average experience, generated by similar types of business.\*

## Premium Discounts

After the experience rating modification has been applied, the next step in determining the cost of a policy is to apply a program of mandatory premium discounts.\* Premium discounts are needed because manual rates are equivalent to a manufacturer's list price applicable to goods being sold in small quantities. Just as the manufacturer reduces his unit price when larger quantities of the product are purchased, so, too, does the insurance company lower its prices when the employer has a large base premium.

The premium discount program is mandatory and requires that a discount be applied to any annual premium in excess of \$5,000. Premium discounts are appropriate to apply to the policy premium because there are certain costs to the insurance carrier which do not vary directly with the size of the policy.

### Premium Discounts



- \* Give insureds credit for economies of scale in the area of overhead (expenses)
2. Application of premium discount program is mandatory

The combination of the mandatory rates, experience rating, and premium discounts represents a guaranteed cost to the employer. If the employer believes it is to be to his advantage, he may seek a "retrospective rating" agreement which can alter his guaranteed cost.

\*A discussion of the experience rating plan, together with a concrete description of how the plan impacts on the policy premium, is the topic of a booklet entitled, "The ABC's of Experience Rating," published by the NCCI.

\* There are jurisdictions (e.g., Indiana) in which premium discounts are a marketing option to the insurer offering coverage. There are also jurisdictions (e.g., Indiana) in which no premium discounts may be applied to coverage under an assigned risk program.

## Retrospective Rating

Retrospective rating is an optional program which only applies when the employer selects it and the insurer agrees to it. It is a program where, in essence, the employer agrees, prior to the start of the policy, to pay for his own benefit cost, plus a basic charge which largely is to cover the costs of the insurer-provided services.

An employer may choose such a "cost plus" arrangement with limits. For instance, there may be a maximum and/or minimum premium chargeable regardless of how high or how low the actual benefit costs turn out to be. The specific minimum and maximum amounts for a particular employer are agreed upon prior to the start of the policy. The rating organizations, on instruction from the National Association of Insurance Commissioners, check that each individual retrospective rating agreement is within the established bounds for actuarial fairness and propriety, as filed with the regulators.

## Summary

A great deal of information has been presented, from the analysis of historical data and benefit changes to update the overall premium level, to the distribution of the overall adjustment among the numerous job activity classifications. Additionally, rating plans and the role they play in the pricing of coverage have also been reviewed.

The NCCI realizes that there is a growing awareness and heightened interest in how the price for workers' compensation insurance is determined. NCCI welcomes this interest and has, in response, provided this booklet. The pricing of workers' compensation insurance is a wide-ranging and complicated topic and, necessarily, technical matters have been presented here in a distilled and simplified form. A pamphlet geared toward individuals already familiar with the basics of ratemaking, who seek an in-depth understanding of the methodology, is now in preparation. The goal, here, has been to illustrate the fundamental principles involved, to remove some of the mystique, and thereby, to provide a better appreciation of the workers' compensation insurance product.

### Retrospective Rating

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1. Completely optional
2. "Cost Plus"
3. Employer pays own benefit costs plus a basic charge for services
4. Cost to employer has pre-selected minimum and maximum premium
5. Actuarial propriety of each agreement checked by rating bureau

What has been described are the components of a total pricing program to be determined before coverage is initiated. It is worthwhile mentioning that some insurance companies, as a matter of their own corporate policy, make reductions to the net cost after the policy has expired. They do this through what is called a "dividend" to policyholders. Each company may have its own formula for determining dividends to be paid.

Dividends to policyholders are not, however, a part of the NCCI's pricing program, but can be a reduction in the final cost to employers.

## CHAPTER 46

## SELF-INSURANCE

## Section

- 10. Qualifying as a self-insure
- 15. Requirements for a joint venture
- 20. Application for self-insurance certificate
- 30. Factors considered
- 35. Factors considered for municipalities
- 40. Security deposits
- 50. Excess insurance
- 60. Decision on application
- 65. Certificate
- 70. Revocation
- 80. Application for renewal
- 90. Decision on renewal
- 100. Change of business status
- 110. Additional records and reports
- 120. Record keeping
- 130. Auditing
- 900. Definitions

8 AAC 46.010. QUALIFYING AS A SELF-INSURER. (a) An employer may self-insure its obligations under the Act if the employer provides satisfactory proof to the board that it has

(1) the financial ability to meet the obligations;

(2) available claims facilities through its own staffed adjusting facilities located within the state or through independent, licensed, resident adjusters with power to effect settlement within the state; for purposes of this paragraph, insurance companies with a certificate of authority from the division of insurance, Department of Commerce and Economic Development, and with staff adjusters in this state, are considered independent, licensed, resident adjusters;

(3) been in business within Alaska for a least five years immediately preceding the filing of the application;

(4) a safety/loss control program;

(5) in combination with its parent company or subsidiary companies of the employer, a minimum of 100 employees either in Alaska or in another state or states; and

(6) a net worth of at least \$5,000,000.

(b) The board will, in its discretion, waive the requirement in (a)(3) of this section

(1) if the employer has self-insured its workers' compensation obligations in another jurisdiction for a period of at least five years immediately preceding the filing of the application; or

(2) if the employer is a wholly-owned subsidiary and its parent company has been in business for at least five years immediately preceding filing and guarantees the subsidiary's obligations under the Act.

(c) An employer which is a majority or wholly-owned subsidiary must have its obligations under the Act guaranteed by its parent company. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.015. REQUIREMENTS FOR A JOINT VENTURE. (a) The board will, in its discretion, issue a certificate of self-insurance to a joint venture if the partner with the majority interest in the joint venture is a self-insured or qualified to be self-insured in this state and guarantees the workers' compensation obligations of the joint venture. In general, the joint venture must meet all the requirements of this chapter, and in addition

(1) the agreement under which the joint venture will operate must accompany the application for self-insurance;

(2) the application must be filed with the board at least 60 days before the desired effective date when one partner is currently self-insured or at least 90 days before that date when there is no self-insured partner; and

(3) each partner in the joint venture must submit the financial information required by 8 AAC 46.020(a)(3).

(b) The board will, in its discretion, and for good cause, waive the requirement of 8 AAC 46.010(a)(6).

(c) The requirements of 8 AAC 46.010(a)(3) and 8 AAC 46.020(d) do not apply to a joint venture.

(d) The combined financial statements of the partners and the factors listed in 8 AAC 46.030 will be used in considering the application for self-insurance.

(e) A certificate of self-insurance of a joint venture is valid only for the employees of the joint venture and not the employees of any of the partners of the joint venture. Any change of partners in the joint venture or any change in a partner's percentage of ownership in the joint venture must be reported to the board within 30 days.

(f) In addition to the other requirements of this chapter, an application for renewal of a certificate of self-insurance of a joint venture must be accompanied by the most recent audited financial statement of the joint venture.

(g) A joint venture must give the board at least 60 days' written notice before termination of the joint venture. The notice must include the arrangements that have been or will be made to process present and future claims for which the joint venture is or may be responsible. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.020. APPLICATION FOR SELF-INSURANCE CERTIFICATE.

(a) An employer shall apply for a self-insurance certificate on Department of Labor form number 07-6129. The completed application must be

(1) filed with the board at least 90 days before the desired effective date of self-insurance;

(2) signed before a person authorized to take an oath, affirmation, or acknowledgement;

(3) accompanied by audited financial statements of the three most recent fiscal or calendar years for the employer; the employer may submit consolidated financial statements of its parent company if the employer does not have its own audited financial statements and the employer is a majority or wholly owned subsidiary; public entities must submit their three most recent annual financial reports, including detail schedules;

(4) accompanied by a description of the proposed excess insurance including the effective dates, the types of coverage, the conditions and exclusions, the limits and retentions of each type of coverage, and a guarantee of coverage until the board receives a copy of the policies; and

(5) accompanied by a parent company's guarantee of the subsidiary's obligations under the Act, if the employer is a majority or wholly-owned subsidiary.

(b) If the employer or its parent company self-insures its workers' compensation obligations in any other jurisdiction, the application must be accompanied by a summary of the most recent filings, including a summary of losses, self-insured retention limits, and other data pertinent to the other self-insurance programs. The summary of losses must be categorized by total incurred loss, amount of loss within retention limit, amount of loss subject to reinsurance or excess recovery, and amount of loss subject to subrogation recovery.

(c) An employer shall submit, as part of the application, a detailed outline or manual of its safety/loss control program.

(d) An employer shall report for the most recent three years, its total Alaska payroll, Alaska workers' compensation losses, and premiums paid. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.030. FACTORS CONSIDERED. (a) In determining an employer's financial ability to meet the obligations under the Act and in determining if a security deposit is required, the board will review the employer's audited financial statements and other information submitted in support of its application and will consider the

- (1) ratio of tangible net worth to annual compensation premium;
- (2) ratio of working capital to total assets;
- (3) ratio of quick assets to current liabilities;
- (4) ratio of tangible net worth to annual self-insurance retentions;
- (5) ratio of current assets to current liabilities;
- (6) ratio of debt to tangible net worth;
- (7) ratio of cash flow to current liabilities;
- (8) ratio of working capital to net sales;
- (9) profit and loss history;
- (10) form of business organization and relationship of parent company to subsidiary companies;
- (11) compensation loss history, outstanding compensation claims liability, and proposed excess insurance coverage;
- (12) number of employees;
- (13) nature of business;
- (14) safety program;
- (15) obligations under all other self-insured programs including their self-insured retention levels;
- (16) claims facilities and administration;

(17) financial trends of the employer for the last three years; and

(18) the economic outlook for the industry.

(b) The information considered in (a) of this section will be used along with an overall evaluation of the employer's financial condition based on generally accepted accounting principles to determine if the employer has the financial ability to pay current and future obligations under the Act. All financial ratios are defined according to their normal usage in analyzing financial statements. All financial ratios will be compared to the average ratios in the industry relative to the employer's type of business and for businesses of similar financial size. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.035. FACTORS CONSIDERED FOR MUNICIPALITIES. In order to determine a municipality's financial ability to meet the obligations under the Act, the board will review the municipality's annual financial reports and consider the

(1) compensation loss history, outstanding compensation claims liability, and proposed excess insurance coverage;

(2) safety program;

(3) obligations under all other self-insured programs including their self-insured retention levels;

(4) claims facilities and administration;

(5) present tax level; and

(6) bonded indebtedness. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.040. SECURITY DEPOSITS. (a) The posting of a security deposit may be required by the board if the board determines that a security deposit is necessary for a particular self-insured.

(b) A security deposit, if required, must be in the amount of \$300,000 or 125 percent of the total outstanding accrued workers' compensation liabilities, whichever is greater.

(c) A municipality will not be required to post a security deposit. Other applicants who believe they should be exempted

from posting a security deposit, shall submit to the board a statement of reasons for exemption.

(d) Acceptable security deposits include

(1) surety bonds in a form acceptable to the board and written by a corporate surety authorized to transact business in Alaska;

(2) United States government bonds, notes, or bills;

(3) any bonds or securities issued by the State of Alaska and guaranteed by the full faith and credit of the state;

(4) certificates of deposit issued by a duly chartered commercial bank, but only to the extent protected by the Federal Deposit Insurance Corporation;

(5) saving certificates issued by a savings and loan association, but only to the extent protected by the Federal Savings and Loan Insurance Corporation;

(6) a financial guarantee endorsement in a form acceptable to the board issued as part of an acceptable excess insurance policy;

(7) an irrevocable letter of credit from a financial institution authorized to do business in Alaska under AS 06.01.010--06.40.190; or

(8) a certificate of deposit issued by a credit union, but only to the extent protected by the National Credit Union Association.

(e) A security deposit under this section will be valued at its current market value and must be readily convertible to cash.

(f) Security deposits will be assigned to the Commissioner of Labor, his successors or assigns. The deposits will be administered by the Commissioner of Revenue. Interest accruing on a negotiable security deposit will be collected and transmitted at least annually to the self-insurer provided that the self-insurer is not in default under AS 23.30.170.

(g) If a self-insurer defaults under AS 23.30.170 or files for bankruptcy, the Commissioner of Labor will, through the use of the security deposit, obtain sufficient money to pay benefits and compensation awarded or secure a replacement policy of coverage. All deposits will remain in the custody of the Commissioner of Labor until such time as all obligations of the self-insurer have been fully discharged. At that time the board will return any remaining security deposit to the self-insured.

(h) A security deposit may be exchanged or replaced by the self-insurer, upon 30 days' written notice to the board, with other acceptable security in the same amount as long as the self-insurer is not in default under AS 23.30.170. No assignment of a security deposit will be released until an acceptable security deposit of equal value has been submitted.

(i) A self-insurer that ceases to self-insure shall notify the board and may recover the securities deposited with the board upon posting a special release bond issued by a corporate surety in an amount equal to the total value of the securities. The special release bond must cover all existing liabilities under the Act and remain in force until all obligations under the Act have been fully discharged. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090  
AS 23.30.155

8 AAC 46.050. EXCESS INSURANCE. (a) Both specific and aggregate excess insurance with policy limits and retention amounts acceptable to the board must be provided by each self-insurer unless the board waives this requirement.

(b) An acceptable excess insurance policy must

(1) be written by a casualty insurance company or reinsurance company authorized to transact such business in Alaska;

(2) not be cancellable except upon at least 60 days' advance written notice by registered or certified mail to the self-insurer and the board; and

(3) not contain any type of commutation clause, unless it provides that any commutation does not relieve the underwriter of any liability unknown at the time of the commutation.

(c) If an existing excess policy submitted in compliance with this chapter is cancelled or not renewed, the self-insurer shall file proof of replacement excess coverage within the 60-day notice period required by (b)(2) of this section. (Eff. 11/20/83, Register 88)

AUTHORITY: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.060. DECISION ON APPLICATION. (a) Within 30 days after it receives an application for a self-insurance certificate and all required supporting data, the board will approve or deny the application or advise the employer of any additional requirements.

(b) If the board requests additional information, the application shall be considered denied if the employer does not respond within 30 days after receiving the request. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.065. CERTIFICATE. (a) Upon approval of an application, a certificate of self-insurance will be issued.

(b) Except as provided in 8 AAC 46.090(c), a certificate expires 12 months after its effective date. A certificate applies only to the self-insurer and its subsidiaries named on the self-insurer's application for self-insurance. During the 12 months the certificate is in effect, the board will, in its discretion, add new subsidiaries to the certificate or delete subsidiaries upon receipt of a written request from the self-insurer which includes the name and address of each new subsidiary, type of business, and percentage of ownership. The board will, in its discretion, request additional information before permitting a new subsidiary to be added. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.070. REVOCATION. (a) The board will, in its discretion, revoke a certificate of self-insurance because of

(1) failure to comply with the Act or regulations adopted under the Act;

(2) failure to comply with an order of the board;

(3) deterioration of financial condition adversely affecting the self-insurer's ability to pay its obligations under the Act; or

(4) a change in business identity or structure which alters the status of the self-insurer as it existed when the certificate was issued.

(b) If replacement coverage has not been obtained, the board will deny a renewal application or revoke a certificate of self-insurance if

(1) an excess insurance policy is cancelled or expires; or

(2) a security deposit's current market value drops below the value required by the board. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.080. APPLICATION FOR RENEWAL. (a) A self-insurer shall submit an application for renewal to the board on Department of Labor form number 07-6130. The completed application must be

(1) filed at least 60 days before the expiration of the certificate of self-insurance;

(2) signed before a person authorized to take an oath, affirmation, or acknowledgement;

(3) accompanied by audited financial statements for the self-insurer's most recent fiscal or calendar year, except for public entities which must submit their most recent annual financial report, including detail schedules; and

(4) accompanied by a description of the proposed excess insurance including the effective dates, the types of coverage, the conditions and exclusions, the limits and retentions of each type of coverage, and either a guarantee of coverage until receipt by the board of a copy of the policies or a renewal endorsement specifying the renewal terms of the policies is submitted to the board by the effective date of the renewal certificate.

(b) If the employer self-insurers its workers' compensation obligations in any other jurisdictions, a summary of the most recent filing including a summary of losses, self-insured retention limits and other data pertinent to the other self-insurance programs must be submitted. The summary of losses must be categorized by total incurred loss, amount of loss within retention limit, amount of loss subject to excess recovery and amount of loss subject to subrogation recovery. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.075  
AS 23.30.090

8 AAC 46.090. DECISION ON RENEWAL. (a) Within 30 days after it receives the application for renewal and all supporting data, the board will approve or deny the application or advise the self-insurer of any additional requirements.

(b) If the board requests additional information, the renewal application will be considered denied if the self-insurer does not respond within 15 days after receiving the request.

(c) An extension of a self-insurance certificate may be granted for no more than 90 days to meet the requirements of the board, if a request for an extension is made in writing by the self-insurer and received by the board at least 15 days before the date the current certificate expires. If all the requirements for renewal of the self-insurance certificate have not been met within the time prescribed, the application for renewal will be denied. After considering the additional required information the board will either grant or deny renewal. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005

AS 23.30.075

AS 23.30.090

8 AAC 46.100. CHANGE OF BUSINESS STATUS. A self-insurer that amends its articles, charter, or agreement of incorporation so as to change its identity or business structure or in any other manner alter its status as it existed at the time of issuance of its certificate shall send the board a copy of the amendments. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005

AS 23.30.075

AS 23.30.090

8 AAC 46.110. ADDITIONAL RECORDS AND REPORTS. Upon 30 days' advance written notice, the board will, in its discretion, require a self-insurer to file reports concerning its financial condition, payroll records, accident experience, summary of losses, workers' compensation payments, or outstanding workers' compensation liabilities. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005

AS 23.30.065

AS 23.30.090

8 AAC 46.120. RECORD KEEPING. (a) Unless waived by the board, a self-insurer shall maintain at one location within the state copies of all records necessary to complete and verify the accuracy of all reports and documents submitted to the board. If this requirement is waived, a self-insurer shall, upon 15 days' written notice from the board, provide copies of all records necessary to complete and verify the accuracy of all reports and documents submitted to the board.

(b) All such records must be open to inspection by authorized board representatives during the self-insured's regular business hours and must be retained for three years. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.065  
AS 23.30.090

8 AAC 46.130. AUDITING. The board or its representative will, in its discretion, audit a self-insurance program at a reasonable time as it considers necessary. An audit may include, but is not limited to, an audit of claims files, outstanding liabilities, and workers' compensation payments. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.065  
AS 23.30.090

8 AAC 46.900. DEFINITIONS. In this chapter

(1) "Act" means the Alaska Workers' Compensation Act, as amended, AS 23.30.005--23.30.270;

(2) "audited financial statement" means a balance sheet, statement of retained earnings, statement of income, statement of changes in financial position and all notes to the financial statements, upon which a Certified Public Accountant expresses a professional opinion that the accompanying statements present fairly the financial position of the employer in conformity with generally accepted accounting principles consistently applied, and includes tests of the accounting records and other auditing procedures considered necessary in the circumstances;

(3) "board" means a single three-member panel, or a quorum of a panel, of the Alaska Workers' Compensation Board;

(4) "commutation clause" means a clause that provides for estimation, payment, and complete discharge of all future obligations for insurance loss or losses incurred, regardless of the continuing nature of certain losses.

(5) "to effect settlement within the state" means the ability to timely pay all compensation and medical and other benefits;

(6) "tangible net worth" means the amount available after subtracting total liabilities from total assets less any intangible assets. (Eff. 11/20/83, Register 88)

Authority: AS 23.30.005  
AS 23.30.265

Bill Sheffield  
Governor

Number

Date

Department of Labor

# BULLETIN

83-06

November 17, 1983

Jim Robison  
Commissioner

## SUBJECT

Self-Insurance Regulations

The Alaska Workers' Compensation Board has approved the adoption of Regulations numbered 8 AAC 46.010--8 AAC 46.900. An unofficial copy is enclosed. These regulations are being released for general information prior to the official publication in the Alaska Administrative Code. The regulations deal with self-insurance under The Alaska Workers' Compensation Act, and became effective on November 20, 1983.

New application forms are being prepared and we will send you a copy as soon as possible.

The Board is also in the process of preparing its own Bond Form and Parent Company Guarantee Form. Until these forms are finalized most bond or parent guarantee forms from another state, suitably adapted to Alaska Regulations, will be accepted by the Board.

1986

OTHER LIABILITY

RANK	COMPANY NAME	DOM	MARKET SHARE	DIRECT PREMIUMS WRITTEN
1	ALASKA NATIONAL INS CO	AK	12.59	7,700
2	NATIONAL UNION FIRE INS CO OF PITTSB	PA	11.61	7,101
3	ALASKA PACIFIC ASR CO	AK	10.52	6,434
4	CONTINENTAL CASUALTY CO	IL	5.76	3,526
5	PACIFIC MARINE INS CO	WA	4.89	2,992
6	INS CO OF NORTH AMERICA	PA	4.45	2,721
7	OLD REPUBLIC INS CO	PA	3.44	2,106
8	PROVIDENCE WASHINGTON INS CO OF AK	AK	3.15	1,926
9	INDUSTRIAL INDEMNITY CO OF AK	AK	2.96	1,808
10	AETNA CASUALTY & SURETY CO	CT	2.81	1,718
11	ALASKA INS CO	AK	2.79	1,707
12	SAFETY MUTUAL CAS CORP	MO	2.64	1,613
13	ARECA INS EXCHANGE	AK	2.60	1,590
14	EMPLOYERS INS OF WAUSAU A MUTUAL CO	WI	2.44	1,495
15	SECURITY INS CO OF HARTFORD	CT	2.22	1,356
16	NATIONAL SURETY CORP	IL	1.68	1,030
17	UNITED STATES FIDELITY & GUARANTY CO	MD	1.54	943
18	FEDERAL INS CO	NJ	1.45	886
19	AMERICAN NATIONAL FIRE INS CO	NY	1.34	817
20	AMERICAN ROAD INS CO	MI	1.23	751

TOTAL FOR TOP 20 RANKED INSURERS 82.11 50,220  
 TOTAL FOR ALL 154 INSURERS WRITING THIS LINE 99.99 61,172

1986

WORKERS' COMPENSATION

RANK	COMPANY NAME	DOM	MARKET SHARE	DIRECT PREMIUMS WRITTEN
1	INDUSTRIAL INDEMNITY CO OF AK	AK	14.00	21,067
2	ALASKA NATIONAL INS CO	AK	13.08	19,675
3	PACIFIC MARINE INS CO	WA	10.80	16,257
4	ALASKA PACIFIC ASR CO	AK	8.04	12,095
5	PROVIDENCE WASHINGTON INS CO OF AK	AK	6.93	10,430
6	ALASKA TIMBER INS EXCHANGE	AK	6.37	9,583
7	AMERICAN INS CO	NJ	4.36	6,565
8	TRAVELERS INS CO (ACCIDENT DEPT)	CT	3.82	5,747
9	EMPLOYERS INS OF WAUSAU A MUTUAL CO	WI	3.14	4,729
10	OLD REPUBLIC INS CO	PA	2.52	3,799
11	FIDELITY & CASUALTY CO OF NY	NH	1.73	2,602
12	WAUSAU UNDERWRITERS INS CO	WI	1.67	2,517
13	INS CO OF NORTH AMERICA	PA	1.64	2,471
14	EAGLE PACIFIC INS CO	WA	1.48	2,230
15	NATIONAL UNION FIRE INS CO OF PITTSB	PA	1.46	2,202
16	ROYAL INS CO OF AMERICA	IL	1.39	2,093
17	LIBERTY MUTUAL FIRE INS CO	MA	1.31	1,978
18	UNITED STATES FIRE INS CO	NY	1.17	1,758
19	STANDARD FIRE INS CO	CT	1.17	1,757
20	PACIFIC MARINE INS CO OF AK	AK	1.10	1,652

TOTAL FOR TOP 20 RANKED INSURERS 87.18 131,207  
 TOTAL FOR ALL 145 INSURERS WRITING THIS LINE 100.01 150,474

43  
 13-20 / 4-13 / 9-12

THE MENNINGER REHABILITATION RESEARCH AND TRAINING CENTER ON  
PREVENTING DISABILITY DEPENDENCE

Analysis of Private Sector  
Rehabilitation Services: Alaska

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## A. INTRODUCTION

In response to an obvious need of insurance carriers, private sector rehabilitation providers have multiplied during the last 15 years. During this time, the emphasis has been on striving to meet the need, rather than reflecting on what was being done. However, as the field has matured and established itself as an identifiable profession the time has come to do some self-examination.

As the major representative of private sector rehabilitation providers, the National Association of Rehabilitation Professionals in the Private Sector (NARPPS) was given the charge to undertake such a study. In order to comply with the wishes of the membership, NARPPS contacted the Rehabilitation Research and Training Center, of The Menninger Foundation.

The Menninger Foundation Rehabilitation Research and Training Center has been established in order to develop programs and suggest policies which will help eliminate the financial dependence of workers who become disabled but are still capable of gainful employment. As a way of accomplishing these goals, the center agreed to undertake this evaluative research as an independent third-party.

The overall objectives of this research are as follows:

- a. To determine if there is a significant improvement in return to work among claimants who are referred to rehabilitation professionals in the private sector.
- b. To develop a model system for use by insurers in the cost-benefit analysis of vocational rehabilitation services.
- c. To ascertain if certain types of vocational rehabilitation services are more likely to result in the client returning to work than are other services.

In addition to the major national study, certain state chapters have requested an overview of the services provided in their particular states for workers' compensation (WC) claimants. The results provided in these individual state reports are limited to the demographic characteristics of WC claimants, the types of services provided, the results of the services, and the costs of those services.

## B. METHODOLOGY

For this report, we solicited data on closed cases from Alaska NARPPS member rehabilitation specialists. They were asked to provide demographic, service and closure information on each case they had closed between May 1986 and May 1987. We asked them to eliminate those cases in which the only service to be provided was expert witness testimony. The data collection form used in this study and instructions are shown in the Appendix.

Of the 16 rehabilitation companies contacted, three responded providing us with data on 233 closed cases. Of these, 209 involved worker injury cases, the remaining 24 cases were excluded from this analysis.

We entered the raw data as received into a computer file, doing only minimal coding. After all the data were entered and checked, some of the variables were recoded for analysis. The primary disability was coded

using a coding scheme, based on the part of the body involved, which is shown below:

<u>Part of Body</u>	<u>Code</u>
Cranial Injury	1
Facial, Mandibular	2
Neck	3
Back	4
Shoulders, Arm	5
Hand, Wrist	6
Trunk	7
Skin (Abrasions, Burns)	8
Knee	9
Ankle	10
Foot	11
Legs, Hip	12
Multiple	13
Mental, Emotional Disabilities	14
Not Otherwise Codable	15

Only seven of the 195 cases, in which a primary disability was reported, fell into the "Not Otherwise Codable" group.

The claimants' occupations were coded using the following system:

- A. Managerial and Professional Specialty  
Includes: Executive, administrative, and managerial workers, as well as professionals such as attorneys, doctors, and teachers
- B. Technical, Sales and Administrative Support  
Includes: Technicians, sales persons, administrative support personnel such as secretarial and clerical workers
- C. Service Occupations  
Includes: Domestic, protective service workers, barbers and other personal service providers

- D. Precision Production, Craft, and Repair  
Includes: Mechanics and repair persons, as well as construction trade workers
- E. Operators, Fabricators, and Laborers  
Includes: Machine operators, assemblers, transportation workers, laborers, and equipment cleaners
- F. Farming, Forestry and Fishing.

Statistical analysis involved standard univariate tests, either  $X^2$  or t-tests as appropriate.

## C. RESULTS

### 3.0 Demographic Analysis

Of the WC claimants served, 77% are men and 23% women.

The majority (65%) were married at the time they were referred for services, while 27% were single. The remaining 8% were divorced, widowed, or separated.

The average worker served was 37.7 years of age (SD = 10.43) at the time of injury. The distribution of ages is shown in Table 1.

Table 1  
Distribution of Ages at the Time of Injury

Age Cohort	Percentage
≤ 24	8%
25 - 34	34%
35 - 44	34%
45 - 54	16%
≥ 55	8%
Total	100%

The average WC claimant completed 11.9 years of education (SD = 2.03). The distribution is shown in Table 2.

Table 2  
Years of Education of Clients Served

Years	Percentage
$\leq 8$	5%
9 - 11	22%
12	49%
13 - 15	20%
16	3%
$\geq 17$	1%
Total	100%

The classifications of the jobs held by the claimants at the time of injury are shown in Table 3.

Table 3  
Occupational Classifications of the Jobs Held at  
the Time of Injury

Occupational Classification	Percentage
A. Managerial/Professional	2%
B. Technical	13%
C. Service	17%
D. Craft	30%
E. Operator/Fabricator	35%
F. Farming	3%
Total	100%

### 3.1 Types of Injuries

Among the WC claimants referred for rehabilitation services, back injuries were by far the most common cause of disability as shown in Table 4.

Table 4  
Types of Injuries by Body Area

Type of Injury	Percentage
Back	58%
Knee	10%
Shoulder	8%
Leg, Ankle, or Foot	7%
Hand or Wrist	5%
Trunk	4%
Other	8%
Total	100%

### 3.2 Services Provided

In general, the most common types of services provided were job analysis, medical care coordination, non-medical case management, vocational counseling, labor market surveys, and transferable skills analysis.

Table 5 shows the percentage of WG claimants provided each service. For simplicity, we have not included services provided to less than 5% of the claimants.

Table 5  
Percentage of Clients Receiving Each Service

Type of Service	Percentage Receiving Service
Job Analysis	72%
Vocational Counseling	67%
Non-Medical Case Management	66%
Medical Care Coordination	62%
Labor Market Survey	58%
Transferable Skills Analysis	50%
Vocational Testing	41%
Job Development/Placement	41%
Physical Capacities Testing	31%
Physical Therapy	30%
Work Evaluation	28%
On-the-Job Training	23%
Job Seeking Skills	17%
Job Modification	14%
Psychological Testing/Evaluation	11%
Work Hardening	11%
Back Care Training	10%
Vocational Training	9%
Occupational Therapy	5%

Not all of the rehabilitation services shown in Table 5 were provided by the companies who responded to this survey. Table 6 shows the proportion of the services

listed in Table 5 which were provided by the responding company, another provider, or both the respondent and another provider.

Table 6  
Proportion of Services Provided by the Respondent Company, Another Provider, or Both

Type of Service	Services Provided By			Total
	Respondent	Other	Both	
Job Analysis	92%	5%	3%	100%
Vocational Counseling	89%	6%	5%	100%
Non-Medical Case Mgt	88%	3%	9%	100%
Medical Care Coord	71%	22%	7%	100%
Labor Market Survey	90%	5%	5%	100%
Transferable Skills	88%	10%	2%	100%
Vocational Testing	80%	17%	3%	100%
Job Dev/Placement	90%	6%	4%	100%
Physical Capacities	37%	60%	3%	100%
Physical Therapy	3%	97%	0%	100%
Work Evaluation	81%	19%	0%	100%
O.J.T. Coordination	90%	10%	0%	100%
Job Seeking Skills	86%	11%	3%	100%
Job Modification	97%	3%	0%	100%
Psych Testing	22%	74%	4%	100%
Work Hardening	45%	50%	5%	100%
Back Care Training	15%	85%	0%	100%
Voc Training Coord	67%	28%	5%	100%
Occupational Therapy	0%	100%	0%	100%

### 3.3 Referral and Service Time-Frames

The average length of time from injury to referral was found to be 1.4 years (SD = 1.40). Table 7 shows the amount of time for referral by type of injury. The t-test compares each one to the average for the total group.

Table 7

Length of Time Between Injury and Referral According to Type of Injury

Injury	Average Time	SD	t-Test*
Back	1.5 years	1.44 years	0.3
Knee	1.9 years	1.62 years	1.4
Shoulder	1.4 years	1.16 years	0.0
Leg, Ankle, Foot	1.4 years	1.34 years	0.0
Hand, Wrist	1.0 years	0.89 years	0.7
Other	0.8 years	0.91 years	1.1

\* None of the t-tests showed significance at the .05 level of confidence.

It is interesting to note that referral for rehabilitation services appears to be closely tied to the time that the claimants' disabilities become medically stable. The average time from injury to being considered medically stable among this group is 1.3 years (SD = 1.39).

The average amount of time taken for rehabilitation services is 11.2 months (SD = 9.59), that is the time from referral until closure. Table 8 gives the amount of time for services by type of injury.

Table 8  
Length of Time Between Referral and Closure  
According to Type of Injury

Injury	Average Time	SD	t-Test*
Back	12.6 months	11.09 months	0.9
Knee	12.2 months	11.03 months	0.4
Shoulder	9.5 months	6.61 months	0.7
Leg, Ankle, Foot	6.8 months	6.73 months	1.7
Hand, Wrist	7.9 months	5.60 months	1.1
Other	7.8 months	6.46 months	1.5

\* None of the t-tests showed significance at the .05 level of confidence.

### 3.4 Service Outcomes

The service outcomes for all clients in this sample are shown in Table 9.

Table 9  
Outcomes for All Clients Served

Closure Status	Percentage
Same Job, Same Company	7%
Different Job, Same Company	3%
Same Job, Different Company	3%
Different Job, Different Company	10%
Uncooperative	8%
Medically Non-Feasible	2%
Vocationally Non-Feasible	0%
Carrier Requested Closure	27%
Employable/No Job	6%
Case Settled	24%
Moved or Died	1%
Other	9%
Total	100%

From the above table one can see that only 23% of the referred clients were closed as having return to work. However, four types of closures probably cannot be considered failures. These four are: Carrier requested closure; case settled; moved or died; and other. When these cases are removed from the analysis, 58% of the remaining clients returned to work. This high rate of return to work is even more impressive when we realize that these clients were considered so severely disabled that they were not considered

medically stable for an average of 1.3 years (SD = 1.39).

It was expected that there would be some differences in outcomes based upon the type of injury sustained, however, the differences observed are not significant ( $\chi^2 = 17.43, 20 \text{ df.}$ ). Table 10 shows how people with various types of injuries had their rehabilitation services closed by the providers who responded to the survey. For presentation purposes we have collapsed the 12 closure statuses into five. All of those who returned to work have been put into one status (RTW). Two groups which retain their singular identity are those for whom the carrier requested closure (CRC) and those who had their cases settled (CS). Those statuses which we previously characterized as unsuccessful by virtue of labeling them as uncooperative, medically or vocationally non-feasible, or employable/no job were placed in one group (U). The remaining two statuses were called "Other" (O).

Table 10  
Relationship Between the Type of Injury  
and Closure Status

Injury	Closure Status*					Total
	RTW	CRC	CS	U	O	
Back	20%	25%	25%	20%	10%	100%
Knee	30%	20%	15%	25%	10%	100%
Shoulder	20%	27%	40%	7%	6%	100%
Leg, Ankle, Foot	29%	36%	21%	0%	14%	100%
Hand, Wrist	30%	30%	40%	0%	0%	100%
Other	40%	20%	20%	10%	10%	100%

\* For closure codes, see text.

### 3.5 Wages

Prior to being seriously injured on the job, the average worker in this sample, was earning \$671.59 per week (SD = \$318.14). For those 40 persons who returned to work, their average wage after return was \$516.07 per week (SD = \$297.44). Since the people who returned to work are only a subsample of the referred group, these two average wages are not comparable.

Of the 40 people who returned to work, the pre-disability earnings were reported for 31. The average pre-disability wage for this subgroup was \$665.47 per week (SD = \$283.58); after return, the

average wage was \$541.94 per week (SD = \$319.95). The average \$123.53 per week reduction in wage is not statistically significant (t = 1.6, 60 df.).

The pre-disability earnings of workers who had different types of injuries are shown in Table 11.

Table 11  
Pre-Disability Earnings by Type of Injury

Injury	Earnings Per Week		t-Test*
	Mean	SD	
Back	\$670.87	\$313.59	0.0
Knee	586.64	333.36	0.2
Shoulder	577.38	280.35	0.8
Leg, Ankle, Foot	687.70	285.10	0.1
Hand, Wrist	473.77	302.75	1.7
Other	772.21	340.79	1.5

\* None of the t-tests showed significance at the .05 level of confidence.

There were only enough data on return to work cases to compare the post-disability earnings of those with back, shoulder, or knee injuries. These results are shown in Table 12.

Table 12  
Post-Disability Earnings by Type of Injury

Injury	Earnings Per Week		t-Test*
	Mean	SD	
Back	\$525.39	\$302.73	0.1
Knee	300.00	20.00	1.2
Shoulder	380.00	74.83	0.6
Other	559.67	317.19	0.4

\* None of the t-tests showed significance at the .05 level of confidence.

### 3.6 Cost of Services

The average amount billed by the responding provider for services rendered to this sample was \$3,670.79 (SD = 3,573.63). This figure is based on per hour charges which because of the cost of living are generally higher than the rest of the country. If as we are told the charge varies from \$75 to \$80 per hour, then the cost represents 48.9 to 45.9 billable hours.

The average charge per closure status is shown in Table 13, arranged in order of increasing cost.

Table 13  
Average Charges Per Closure Status

Closure Status	Charges		t-Test *
	Mean	SD	
Same Job/Same Company	\$1,322	\$ 837.50	2.5
Carrier Req Closure	2,495	3,120.42	2.1
Other	2,578	2,445.79	1.3
Same Job/Diff Company	2,930	2,266.13	0.4
Medically Not Feasible	2,933	2,432.46	0.4
Employable/No Job	4,041	4,875.96	0.4
Diff Job/Same Company	4,095	6,196.18	0.3
Diff Job/Diff Company	4,644	2,493.81	1.2
Uncooperative	5,036	3,110.24	1.4
Case Settled	5,119	3,558.00	2.5

\* A t-score of 2.35 is significant at the 0.2 level, a t-score of 1.97 at the 0.5 level.

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\* A t-score of 2.35 is significant at the 0.2 level, a t-score of 1.97 at the 0.5 level.

It should come as no surprise that the least expensive outcome is when the client is able to return to the same job for the previous employer. The fact that so much money is spent upon clients who are ultimately closed as uncooperative, suggests that it would be more cost effective if an early identification could be made of those clients exhibiting uncooperative behavior.

Table 14 gives the average costs of services according to the type of injury.

Table 14  
Average Charges According to Type of Injury

Injury	Mean	Charges	SD	t-Test*
Back	\$4,000		\$3,705.30	0.6
Knee	4,357		4,179.85	0.8
Shoulder	3,633		2,887.68	0.0
Leg, Ankle, Foot	3,491		2,519.09	0.2
Hand, Wrist	3,096		2,516.56	0.5
Other	3,320		3,380.15	0.5

\* None of the t-tests showed significance at the .05 level of confidence.

#### D. CONCLUSIONS

A major problem exists in the analysis of the foregoing data. That is, at the present time there are no comparable data sets available on private sector rehabilitation services. Hopefully, once the national Menninger/NARPPS study is completed, one will be able to compare the data presented here with those from the country as a whole. When that report is available, it should help to identify WC issues and problems which are unique to the Alaska WC system and rehabilitation providers. Until then, we must resort to use with caution the data which exist.

The injured workers referred to these rehabilitation companies are on the average 1.2 years older than the 36.5 years of age for all workers as estimated by the National Institute on Aging (1984). However, these WC claimants are on the average 7.0 years younger than the 44.7 years of age for all workers who are injured whether on or off the job (Hester, Decelles & Hood, 1986).

According to the World Almanac (1987), the average annual wage in Alaska in 1985 was \$28,800. The average pre-disability income of the injured workers in this study was 21% higher at \$34,922 per year. This fact is