

AWARD POSITIONS

The evolution of annualised salaries for traditional wages positions is now underway across the coal mining industry. The trend towards an annual salary appears to have resulted in a move away from specific annual leave loading and shift allowances, at least as separate and identifiable elements of remuneration. A significant proportion of the jobs are enjoying non-cash benefits such as health insurance which would have been less common for employees working under traditional Award conditions.

Hours, Rosters & Remuneration

There is considerable variance in the remuneration offered to any one position. In this section of the report we aim to investigate the work arrangement factors which may have an impact on remuneration (eg rostered hours of work, the duration of the shift, and whether the roster is continuous over seven days).

Hours of Work

There is considerable variation in the rostered hours of work for award personnel. For example, for the position of Mechanical Tradesperson (Shift) [W803] the minimum rostered hours were 1,856 per annum, the maximum hours were 2,496 per annum and the average was 2,226 per annum.

We examined the relationship between rostered hours of work and remuneration for four benchmark award positions using a Pearson correlation coefficient. This study examines not only Base Salary and Gross Remuneration, it also considers Total Fixed Remuneration. This is the sum of Base Salary, company superannuation contributions, shift allowances, overtime paid according to the roster and any other guaranteed portion of the remuneration package. It *excludes* any form of personal incentive or production / productivity bonus. Theoretically, it should be the most sensitive measure of variations in hours, rosters and other work arrangements. The results are presented below:

**Relationship Between Rostered Hours &
Remuneration for Select Award Positions - June 2001**

Position	Base Salary	Total Fixed Remun	Gross Remun
Senior Prep Plant Operator [W801]	r = 0.08, N.S.	r = 0.09, N.S.	r = 0.05, N.S.
Mech Trades (Shift) [W803]	r = 0.28, p < 0.05	r = 0.09, N.S.	r = 0.00, N.S.
Top U/G Production Miner [W806]	r = 0.21, N.S.	r = 0.14, N.S.	r = 0.36, N.S.
Top O/P Production Miner [W815]	r = 0.18, N.S.	r = 0.04, N.S.	r = 0.01, N.S.

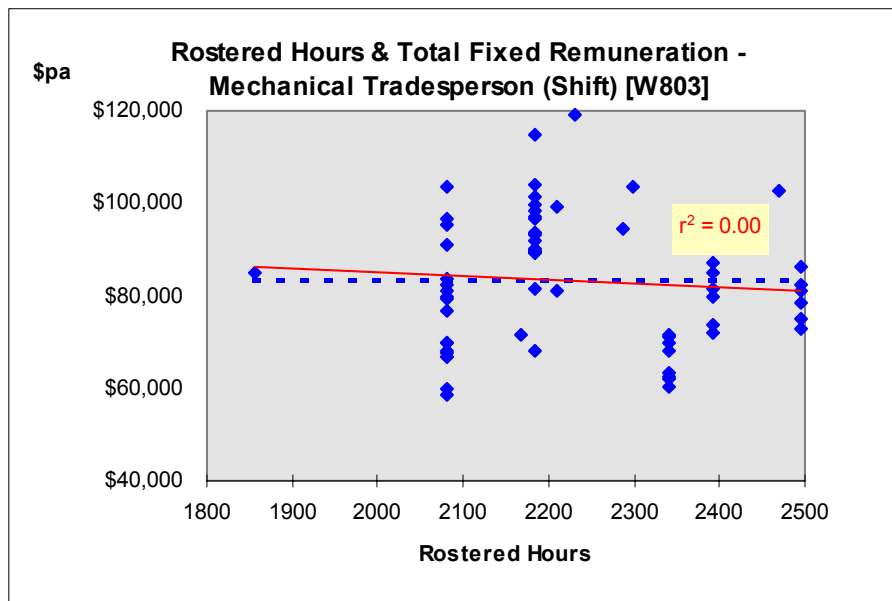
There is only one statistically significant correlation (between the Base Salary of the Mechanical Tradesperson - Shift and hours) but it is very weak. For all other measures, the relationship between rostered hours and remuneration, across the market, is virtually non-existent.

To illustrate the statistical data, we have selected the relationship between rostered hours and the Total Fixed Remuneration of the Mechanical Tradesperson (Shift) [W803] as an example.

Each blue diamond represents the remuneration of one incumbent in the survey. The vertical clusters indicate multiple incumbents working the same hours. What is immediately apparent (and what the statistics quantify) is that there is no relationship between increasing hours of work and increasing Total Fixed Remuneration for incumbents of this position in this survey.

The red line illustrates the regression equation which attempts to track the relationship between hours and remuneration. The equation ($r^2 = 0.00$) quantifies this - it indicates that the factor of rostered hours does not statistically explain any of the variance in remuneration.

The broken blue line is the average for all data. It is as good a "predictor" of remuneration level based on rostered hours, as the regression equation.



Given the traditional award base on which many organisations would have developed their remuneration plans for these classifications and the continuing use of awards in many organisations, one intuitively would have expected to see some strong correlations between the standard rostered hours of work and remuneration levels.

Duration of Shift

A major change which has occurred in respect of shift arrangements is the introduction of rosters employing shifts with a duration in excess of 8 hours. The most common of the new systems employ shifts of 12 hours' duration.

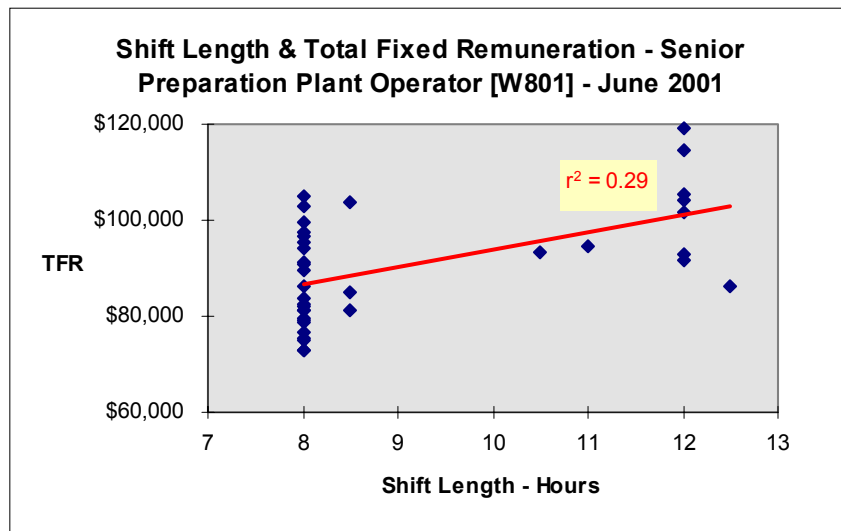
For example, for the position of Mechanical Tradesperson (Shift) [W803] the minimum shift duration was 8 hours, the maximum was 12.5 hours and the average was 9.8 hours per shift.

An examination was undertaken of the relationship between shift duration and remuneration level. The results for four benchmark positions are summarised in the table below:

Relationship Between Shift Duration & Remuneration for Select Award Positions - June 2001

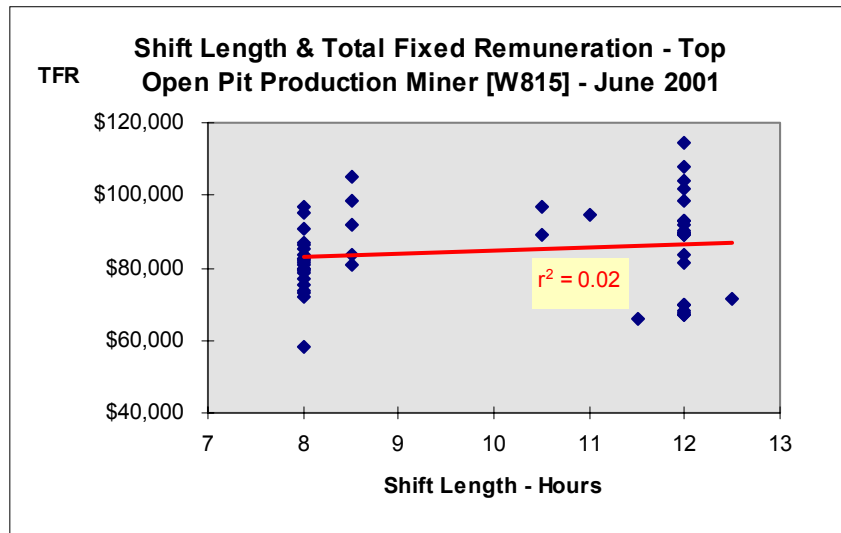
Position	Base Salary	Total Fixed Remunerati on	Gross Remunerati on
Senior Prep Plant Operator [W801]	r = 0.23, N.S.	r = 0.54, p << 0.01	r = 0.54, p << 0.01
Mech Trades (Shift) [W803]	r = 0.49, p << 0.01	r = 0.27, p < 0.05	r = 0.35, p < 0.01
Top U/G Production Miner [W806]	r = 0.28, N.S.	r = 0.15, N.S.	r = 0.42, N.S.
Top O/P Production Miner [W815]	r = 0.51, p << 0.01	r = 0.14, N.S.	r = 0.27, N.S.

The results are mixed, however, there are several instances of modest but statistically robust associations between increasing shift length and proportionally increasing remuneration. The positive association between Total Fixed Remuneration and shift duration for the Senior Preparation Plant Operator [W801] is illustrated below:



The correlation ($r = 0.54$) yields a coefficient of determination of $r^2 = 0.29$ which means that shift duration can explain 29 per cent of the variance in remuneration around the mean. The remaining 71 per cent is unexplained by shift duration.

The less convincing result in respect of the Top Open Pit Production Miner [W815] is illustrated below:



In this instance the weak and non-significant correlation ($r = 0.14$) yields a coefficient of determination (r^2) of 0.02. This means that for this position shift duration explains around 2 per cent of the variance in Total Fixed Remuneration. This result is of no practical value.

Fixed versus Rotating Rosters

Across the survey sample a variety of rosters was evident. Some employees worked on fixed rosters (eg permanent days, afternoons or nights) while some employees worked on rotating rosters (a mix of days & afternoons and days / afternoons / nights).

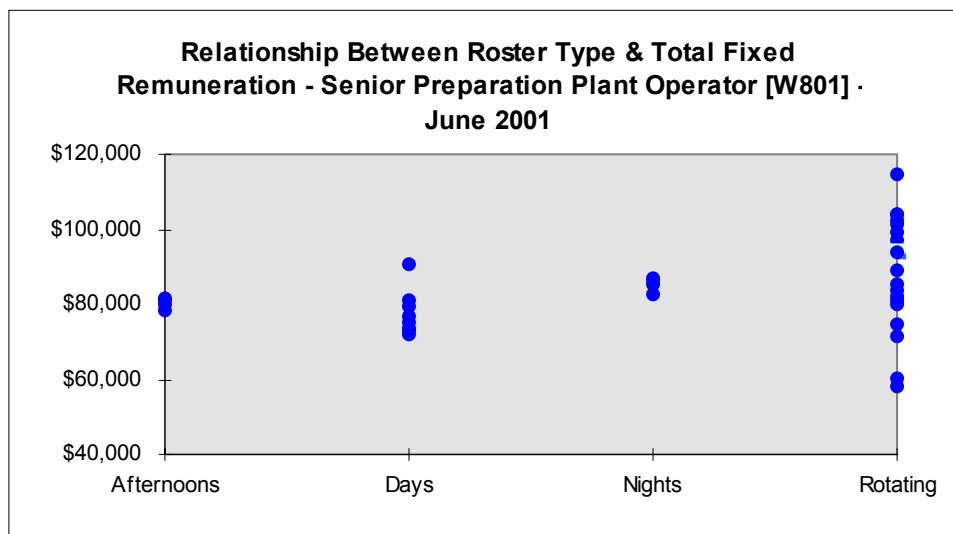
We examined the relationship between roster types and remuneration for the four benchmark award positions¹ using the analysis of variance (ANOVA) technique. This focused on Total Fixed Remuneration for ease of presentation. Theoretically, it should be the most sensitive measure of variations in roster types. The results are presented below:

¹ Data are not presented for the position of Top Underground Production Miner [W806] because there were insufficient instances of fixed shift arrangements to undertake ANOVA testing.

**Relationship Between Roster Type & Total Fixed
Remuneration
for Select Award Positions - June 2001**

Position	Perma- nent Days	Perma- nent After- noons	Perma- nent Nights	Rotating	Signif- icance
Senior Prep Plant Op [W801]	80,332	77,706	85,247	88,806	N.S.
Mech Trades (Shift) [W803]	81,985	78,061	82,528	83,639	N.S.
Top Underground Miner [W806]	N/A	N/A	N/A	N/A	N/A
Top Open Pit Miner [W815]	80,332	79,619	84,241	86,738	N.S.

On average, personnel employed on rotating rosters appear to be paid more than those on fixed rosters, however, in no instance was the difference significant. The failure to achieve significance is illustrated below:



The variance *within* the groups (eg rotating shifts) is as great, or greater than, the variance *between* the groups.

Duration of Working Week

Traditional rosters in the coal mining industry have been limited to five days per week, rostered over Monday to Friday. In recent times, companies have sought greater flexibility in working arrangements and attempted to ensure the economic employment of their substantial capital investments.

In some instances this has resulted in six day working rosters (Monday through Saturday); in others the six day roster has unofficially been introduced through the use of a regular “overtime” shift on Saturdays². Many organisations use continuous rosters which require workers to provide cover over the full seven days of the week. Typically, these are associated with 12 hour shifts and a compressed working week (eg 2D/2N/4r) averaging 42 hours per week.

For the position of Mechanical Tradesperson (Shift) [W803], thirty matched incumbents (48 per cent) work over a 5 day week; fourteen (22 per cent) are rostered to work over a 6 day week; and, nineteen (30 per cent) work over a seven day week.

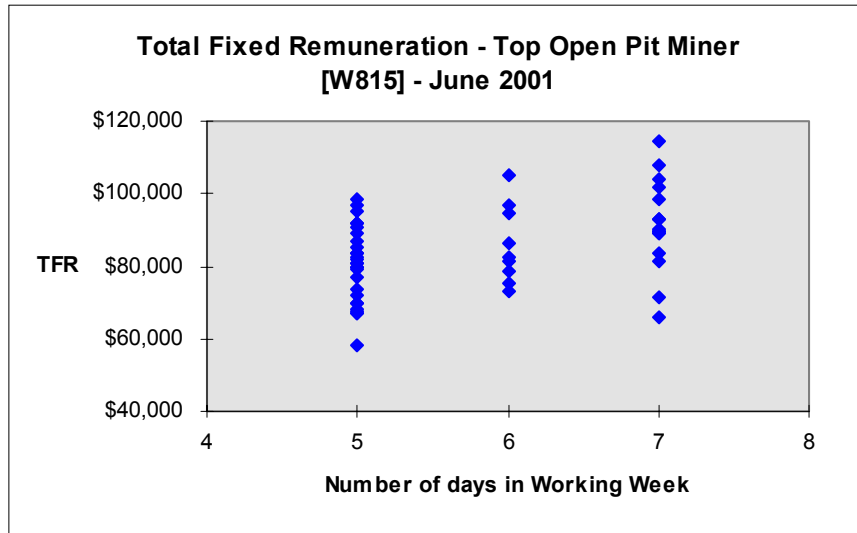
We examined the relationship between the duration of the working week and Total Fixed Remuneration for the four benchmark award positions. The results appear below:

**Relationship Between Duration of Working Week &
Total Fixed Remuneration for Select Award Positions
- June 2001**

Position	5 Day	6 Day	7 Day	Significance
Senior Prep Plant Op [W801]	81,423	83,865	93,873	N.S.
Mech Trades (Shift) [W803]	76,492	82,385	91,803	$F_{(2,60)} = 10.082,$ $p << 0.01$
Top Underground Miner [W806]	67,220	N/A	85,336	$F_{(1,13)} = 6.375,$ $p < 0.05$
Top Open Pit Miner [W815]	80,317	85,874	91,474	$F_{(2,50)} = 5.210,$ $p < 0.01$

Where significant differences are evident across the groups they are, in all cases, applicable to the differences between the five and seven day rosters. For the position of Top Open Pit Production Miner [W815], this relationship between the number of days over which the roster operates and Total Fixed Remuneration is illustrated below:

² Where rosters involve an “overtime” shift regularly rostered every Saturday we have classified them as six day rosters.



Summary & Comments

The analysis of the relationship between work arrangements and remuneration suggests that the duration of the shift and the period over which the roster operates are the principal identifiable factors which influence remuneration levels for this sample group. The two factors are closely linked - rosters of 12 hours' duration over a seven day working week generally result in higher remuneration levels.

For this survey these data have implications. Currently, our survey focuses on a shift position (eg Top Open Pit Production Miner [W815]) and the criteria do not differentiate between roster types. The data, however, suggest that there are two different groups (and arguably more) in the marketplace.

We will continue to collect and analyse the data over the next survey cycle (December 2001) with a view to discussing the best approach to position matching and data presentation at the next Users' Meeting to be held in Sydney in March 2002.

**BASE, TOTAL FIXED AND TOTAL VARIABLE REMUNERATION
POSITION: W803 - MECHANICAL TRADESPERSON (SHIFT)**

Org.	Base Salary	Org.	Net Cash	Super	Benefit	Other Cash	Total Fixed	Org.	Total Fixed	STIP	Total Variable	Org.	Total Fixed	Hours	Hourly Rate
	34,160		34,160	4,180	-	18,340	56,680		56,680	13,000	69,680		60,430	2,340	25.82
	34,160		39,130	4,180	-	15,090	58,400		62,990	7,800	70,790		62,070	2,340	26.53
	34,160		36,000	4,180	-	20,250	60,430		61,260	10,920	72,180		62,990	2,340	26.92
	35,500		49,140	6,580	-	5,540	61,260		61,800	13,000	74,800		63,560	2,340	27.16
	36,000		34,160	4,180	-	23,460	61,800		58,400	16,640	75,040		56,680	2,080	27.25
	36,000		38,110	3,820	-	20,140	62,070		73,710	2,260	75,970		58,400	2,080	28.08
	36,000		36,710	4,700	-	21,580	62,990		68,500	7,800	76,300		68,500	2,340	29.27
	36,710		35,500	4,180	-	23,880	63,560		76,760	-	76,760		61,260	2,080	29.45
	36,710		34,160	4,180	-	26,880	65,220		63,560	14,300	77,860		61,800	2,080	29.71
	36,710		38,110	3,820	-	26,320	68,250		65,220	13,000	78,220		69,720	2,340	29.79
	38,110		36,710	4,700	-	27,090	68,500		69,720	9,150	78,870		72,010	2,390	30.10
	38,110		36,000	4,180	-	29,540	69,720		79,260	-	79,260		71,070	2,340	30.37
	38,630		36,000	4,180	-	30,890	71,070		79,760	-	79,760		73,650	2,390	30.79
P25	38,880	P25					71,340	P25			79,870	P25			30.81
	39,130		42,000	4,200	-	25,420	71,620		72,170	7,800	79,970		72,170	2,340	30.84
	39,840		63,340	6,580	-	1,700	71,620		60,430	20,440	80,870		68,250	2,180	31.25
	41,600		52,420	4,180	-	15,410	72,010		81,050	-	81,050		65,220	2,080	31.35
	41,600		36,710	4,700	-	30,760	72,170		81,100	-	81,100		71,620	2,170	33.05
	41,600		53,680	4,180	-	15,790	73,650		82,260	-	82,260		79,870	2,390	33.39
	41,600		42,510	7,050	-	24,150	73,710		71,620	10,920	82,540		73,710	2,180	33.75
	41,600		41,600	6,580	-	28,580	76,760		83,600	-	83,600		81,700	2,390	34.15
	41,600		41,600	6,580	-	31,080	79,260		71,070	12,800	83,870		85,110	2,390	35.58
	41,600		41,600	6,580	-	31,580	79,760		86,260	-	86,260		87,070	2,390	36.40
	41,600		52,420	4,180	-	23,280	79,870		71,620	15,000	86,620		81,050	2,210	36.67
	41,600		41,600	6,580	-	32,870	81,050		62,070	25,000	87,070		76,760	2,080	36.90
	41,600		41,600	6,580	-	32,920	81,100		72,010	17,700	89,710		81,560	2,180	37.34
Median	42,000	Median					81,560	Median			90,180	Median			38.11
	42,000		42,000	4,200	-	35,360	81,560		90,180	-	90,180		79,260	2,080	38.11
	42,000		53,680	4,180	-	23,840	81,700		90,820	-	90,820		79,760	2,080	38.35
	42,510		41,600	6,580	-	34,080	82,260	Average			90,880	Average			38.36
	47,110	Average					83,270		73,650	17,780	91,420		81,100	2,080	38.99
	49,140		41,600	6,580	-	35,420	83,600		68,250	25,000	93,250		86,260	2,180	39.50
Average	51,370		52,420	4,180	-	28,520	85,110		93,610	-	93,610		82,260	2,080	39.55
	52,420		39,840	7,120	-	39,300	86,260		94,390	-	94,390		83,600	2,080	40.19
	52,420		53,680	4,180	-	29,210	87,070		95,320	-	95,320		71,620	1,770	40.51
	52,420		86,000	4,180	-	-	90,180		81,560	15,000	96,560		94,390	2,290	41.26
	53,680		57,500	9,780	1,050	22,500	90,820		96,820	-	96,820		93,610	2,210	42.36

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***** CONFIDENTIAL *****

DECEMBER 2001

**BASE, TOTAL FIXED AND TOTAL VARIABLE REMUNERATION
POSITION: W803 - MECHANICAL TRADESPERSON (SHIFT)**

Org.	Base Salary	Org.	Net Cash	Super	Benefit	Other Cash	Total Fixed	Org.	Total Fixed	STIP	Total Variable	Org.	Total Fixed	Hours	Hourly Rate
	53,680		71,240	7,640	-	14,700	93,580		96,960	-	96,960		93,580	2,180	42.85
	53,680		79,910	4,180	-	9,530	93,610		95,320	1,740	97,060		95,320	2,180	43.64
P75	57,500		41,600	6,580	-	46,210	94,390		79,870	17,700	97,580		90,820	2,080	43.67
	57,500	P75					95,320	XYZ Mine	97,620	-	97,620		96,960	2,180	44.40
	57,500		38,630	4,460	-	52,230	95,320	P75			98,550	P75			44.55
	57,500		57,500	9,780	1,050	27,000	95,320		81,700	17,780	99,480	XYZ Mine	97,620	2,180	44.70
	57,500		57,500	9,780	1,050	28,500	96,820		99,680	-	99,680		99,680	2,180	45.64
	60,490		47,110	6,120	1,030	42,700	96,960		101,550	-	101,550		95,320	2,080	45.83
	63,340	XYZ Mine	83,850	9,580	2,100	2,090	97,620		85,110	17,700	102,820		101,550	2,180	46.49
	66,770		95,500	4,180	-	-	99,680		104,080	-	104,080		96,820	2,080	46.55
	71,240		41,600	6,580	-	53,370	101,550		87,070	17,780	104,840		104,080	2,180	47.66
	79,910		66,770	8,680	1,030	27,260	103,740		103,740	2,000	105,740		90,180	1,860	48.59
XYZ Mine	83,850		41,600	6,580	-	55,900	104,080		109,860	-	109,860		106,640	2,180	48.83
	86,000		94,930	3,880	7,840	-	106,640		93,580	19,900	113,480		103,740	2,080	49.87
	86,000		86,000	4,180	-	19,680	109,860		114,620	-	114,620		112,460	2,180	51.49
	94,930		94,930	3,880	7,840	5,820	112,460		106,640	9,100	115,740		114,620	2,180	52.48
	94,930		57,500	9,780	1,050	46,300	114,620		119,300	-	119,300		119,300	2,230	53.50
	95,500		60,490	11,380	950	46,480	119,300		112,460	9,100	121,560		109,860	1,860	59.19