Commission on Health and Safety and Workers' Compensation

Vocational Rehabilitation Reform Evaluation

Report prepared for the Commission and the Legislature by:

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Summary:

The Vocational Rehabilitation Benefit is meant to assist injured workers who suffer occupational injuries that result in permanent impairments that preclude the injured workers from returning to their usual occupation. The legislature enacted a series of reforms in 1993 meant to improve the workers' compensation system. A major component of the legislative package was a set of reforms to the Vocational Rehabilitation Benefit. These reforms were aimed at reducing the cost of the Vocational Rehabilitation Benefit while maintaining or improving the outcomes for these seriously injured workers.

The major components of the reform were:

1. A $16,000 cap was placed on the vocational rehabilitation benefit.
2. A cap was placed on the total cost of services supplied by a qualified rehabilitation professional (QRR).
3. A qualified injured worker was not eligible to receive rehabilitation benefits if an employer made an offer of modified or alternate work that met certain conditions.
4. A worker was not eligible to receive more than one rehabilitation plan except under special circumstances.
5. The assignment of the QRR at 90 days was eliminated.

This research performed for the Commission on Health and Safety and Workers' Compensation looked before and after reform at both the cost of rehabilitation and the outcomes for injured workers qualifying for the benefit. The Commission's study is ongoing, but preliminary results are available on the impact of the reform.

The study finds that as a result of reforms, the cost of the Vocational Rehabilitation Benefit was cut in half. Nearly three-quarters of the saving was a result of the cap placed on total cost, the cap placed on QRR services and the limitation placed on the number of plans. 28% of the savings resulted from shifting workers from use of vocational rehabilitation services into modified and alternate work with the at-injury employer.

While the cost of the rehabilitation benefit was reduced substantially, the outcomes for workers did not change. Both the level of post-injury employment and the level of post-injury earnings were comparable pre and post-reform. The reforms reduced costs without a negative impact on injured workers.

The outcomes for workers qualifying for the rehabilitation benefit are comparable to those injured workers with similar permanent disabilities but who are able to return to their at-injury occupation. However outcomes for these seriously injured workers remain poor. Much remains

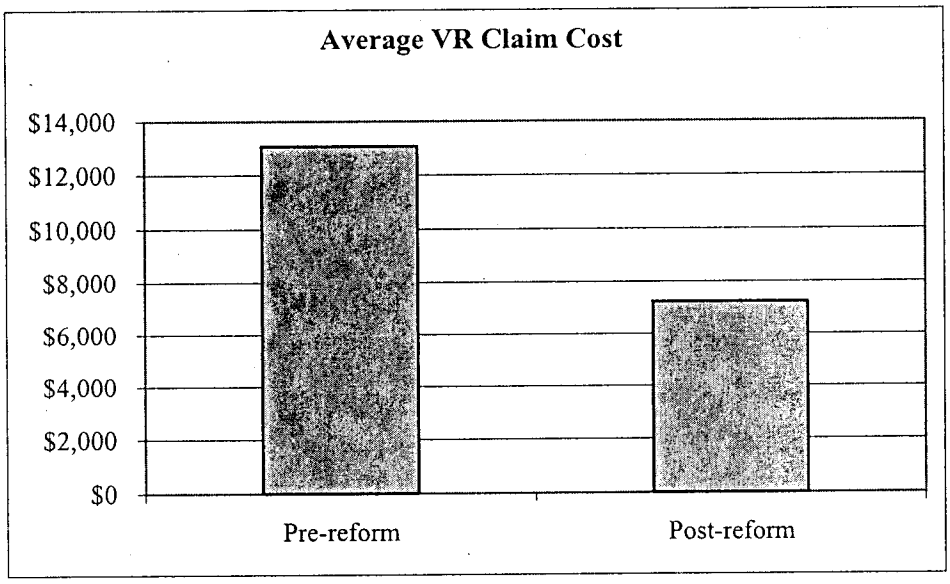
to be done to improve post-injury employment outcomes for all seriously injured workers, especially for particularly hard-hit segments of this group. The preliminary results from the Commission's study highlight serious problems for older workers and workers who suffer injuries that result in substantial levels of chronic pain.

I. VOCATIONAL REHABILITATION COSTS

A. Total Costs Per Claim

Mean total cost per claim after reform was lower than the pre-reform years. Prior to reform, claims were averaging just over $13,000 each in total rehabilitation costs. After reform, the mean total cost per claim had dropped to about $7,200. These costs are the average for all qualified injured workers, whether they received rehabilitation plan services, modified or alternate work, or declined the benefit.

MEAN TOTAL VR COST PER CLAIM



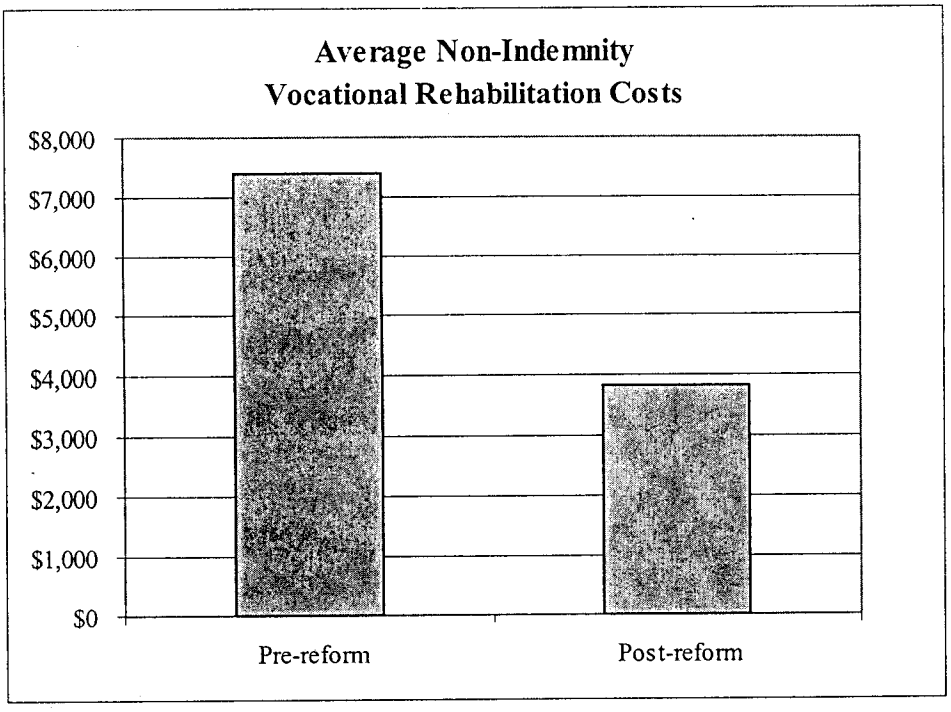
	Mean Total	% Change
Pre-reform	$13,085	
Post-reform	$7,218	- 44.90%

Nearly three-fourths (72%) of the improvement in average costs is a result of lower per claim costs for all types of claims (modified or alternate work, rehabilitation plans, and declinations). About one quarter (28%) of the change is the result of the shift away from plans to modified or alternate work or declination.

B. Non-indemnity Vocational Rehabilitation Costs

The mean non-indemnity vocational rehabilitation cost -- the total expended on a claim, excluding the VRMA benefit -- dropped 48.4% post-reform from $7,414 in 1993 to $3,824.

MEAN NONINDEMNITY COSTS PER CLAIM (EXCLUDING VRMA)

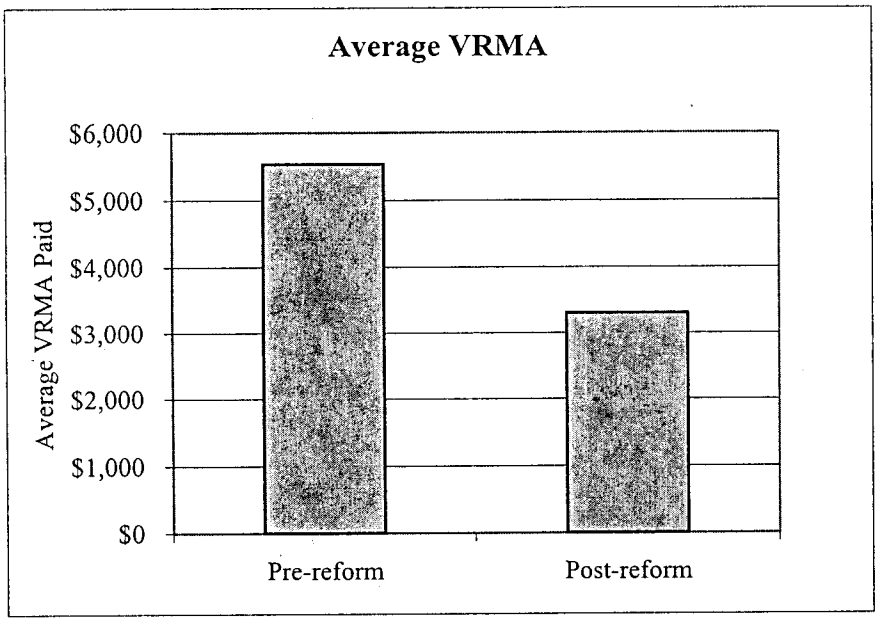


	Non Indemnity Rehabilitation Costs	% Change
Pre-reform	$7,414	
Post-reform	$3,824	- 48.40%

C. Vocational Rehabilitation Maintenance Allowance

Though the maximum amount of VRMA weekly payments did not change over the study years[1], the shorter duration on average of VRMA payments per claim after reform reduced total VRMA paid per claim. While receiving on average over $5,600 for 28 weeks of payments for pre-reform, Qualified injured workers (QIWs) with injuries post-reform collected about $3,300 in VRMA for 17 weeks of payments. Approximately 1/3 of this change is due to a shift towards Modified/Alternate (M/A) work or QIWs who declined services.

MEAN VRMA PAID PER CLAIM



	Total VRMA	% Change
1993	$5,543	
1994	$3,309	- 40.30%

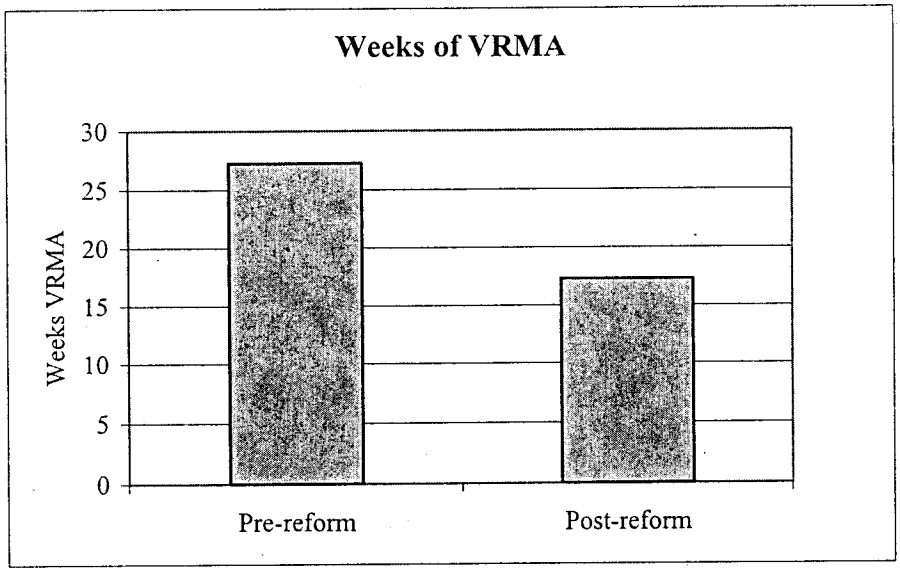
[1] Of the three major indemnity benefits, VRMA is the only benefit where the maximum payment has not been raised in recent years. The minimum rate is set at the minimum rate for TTD and the maximum rate is $246/wk. For the TTD payment, the following dates and maximums apply:

Date of injury	Maximum TTD/week
1/1/90 - 12/31/90	$266
1/1/91 - 6/30/94	$336
7/1/94 - 6/30/95	$406
7/1/95 - 6/30/96	$448
7/1/96 -	$490

PPD payments have also risen for disability levels of 15% and greater.
Per Labor Code 139.5, the injured worker can supplement VRMA payments with PPD advances up to the maximum temporary total rate if enough permanent disability remains unpaid and earnings are sufficient.

The average weeks of VRMA paid dropped substantially after reform, declining from an average 27 weeks to 17 weeks. Some of this drop in weeks of VRMA paid is due to fewer claims receiving retraining plans, which are of longer duration than other case types.

AVERAGE NUMBER OF WEEKS VRMA BY INJURY YEAR

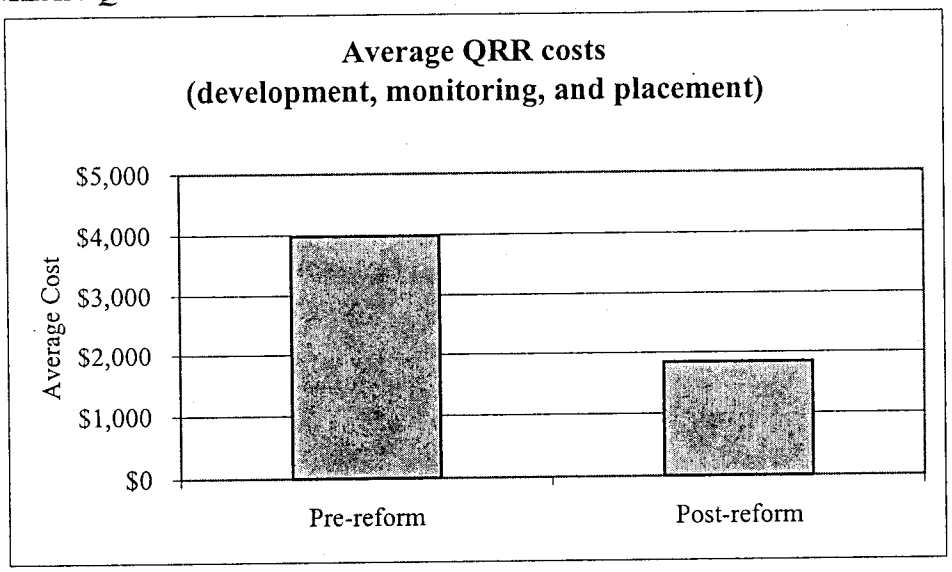


	Weeks VRMA	% change
Pre-reform	27.3	
Post-reform	17.3	- 36.6%

D. Cost of Rehabilitation Professional Services

Mean total QRR costs, composed of evaluation, plan development, and monitoring and placement dropped significantly due to reform. Though average QRR charges were in the $4,000 range before reform, subsequent fees have averaged approximately $1,800. Approximately four-fifths (79%) of this decline is due to moderation of charges by QRRs and imposition of caps on QRR costs. About one-fifth (21%) is due to the shifting of case types away from plans to M/A or declination. QRR costs were the component of VR costs most affected by the reforms.

MEAN QRR COSTS PER CLAIM

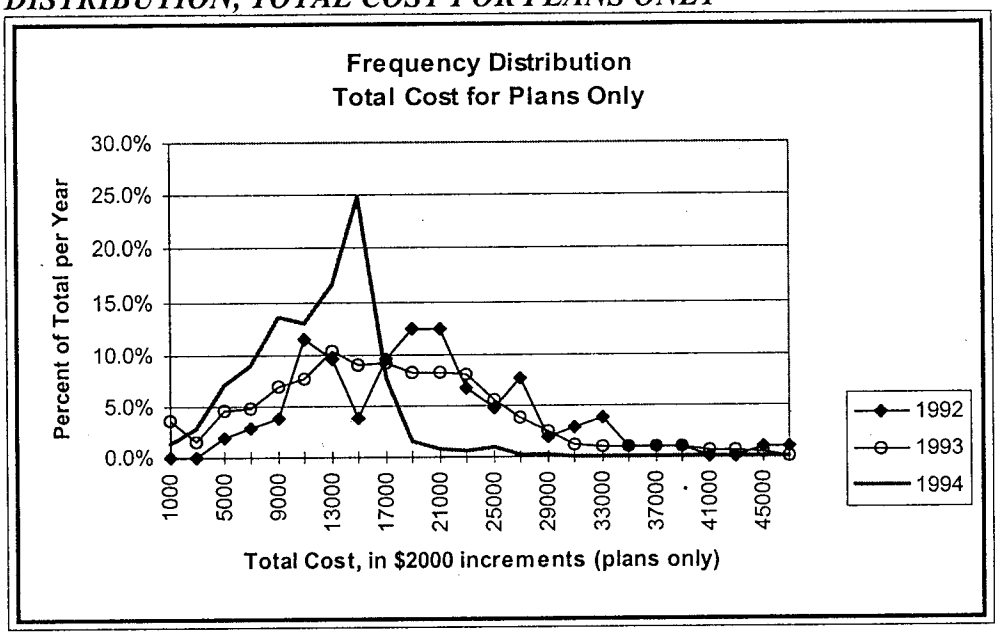


	Total QRR	% Change
Pre-reform	$3,983	
Post-reform	$1,842	- 53.80%

E. Impact of the $16,000 Cap--- When a "ceiling" is not a "floor"

The 1993 reforms imposed a cap of $16,000 on the total cost of rehabilitation claims except under very restricted circumstances[2]. The expected impact of this reform was the virtual elimination of claims with total costs in excess of the cap. This would, in the absence of other effects, reduce the average cost of claims. However, a number of commentators predicted that these savings would be attenuated because the effect of a ceiling on cost would be to create an expectation among injured workers and their representatives that the $16,000 was an "entitlement." This would lead the cap to be treated as a "floor" where QIWs and QRRs would approach the process as, "How to spend the $16,000?" If we consider only cases that included plans, a pattern emerges.

DISTRIBUTION, TOTAL COST FOR PLANS ONLY



Is this evidence of a "floor", a "ceiling", or both? The most consistent explanation is that the cap is acting as a ceiling, but is not being interpreted as a minimum. The argument for this is based on the side of the distribution to the left of the spike. If claims were being crowded up against the cap as well as being forced down under the cap, the 1994 distribution would be everywhere below the 1993 distribution except in the area of the cap limit. However, for claims that received rehabilitation plans, the frequency of claims costing less than the 'cap' is everywhere above the 1993 frequency for all cost increments except $1-$2000.

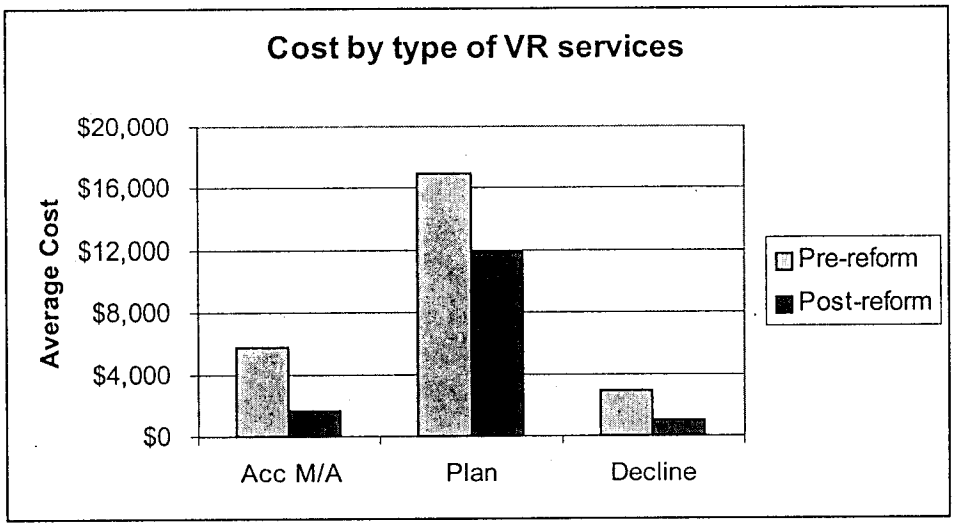
[2] See L.C. 4644(d) Total cost may exceed $16,000 if a second plan is required and:

- the employee has a permanent disability of 25% or greater
- the first plan can not be completed due to circumstances beyond the control of the employee
- the rehabilitation unit finds that a second plan is necessary to provide the employee the opportunity for suitable gainful employment...approval must be based on objective and verifiable facts pursuant to rules promulgated by the administrative director
- the employee cannot complete the plan because the school or other training facility has closed or the worker has a sudden and unexpected change in disability that renders the plan inappropriate.

F. Total Costs by Case Type

Expenditures on plans declined 30% - from $16,000 per plan in to $11,900. M/A offers and declines - always much less expensive than plans - have shown similar reductions in average costs.

MEAN TOTAL COST PER CLAIM BY CASE TYPE



II. Worker Outcomes

A. Offers of Modified and Alternate Work

A major change legislated in 1993 was that if an employer offered a worker alternate or modified work that met certain conditions, the worker was no longer eligible for VR services. The effect of this is only visible in the survey data when comparing pre and post-reform periods. That is because prior to reform, the documents submitted to the Rehabilitation Unit did not consistently record the offer of modified or alternative work if a worker opted for plan services.

Workers receiving M/A offers (survey)		
	Pre-reform	Post-reform
Percent receiving offers	23.9%	31.9%

	Actual Services		
Offered A/M	A/M	VR Plan	Decline
Pre-reform	39.2%	28.4%	32.4%
Post-reform	53.3%	14.4%	32.2%

These data indicate that the apparent direction of the effect was to shift some workers into M/A work who would otherwise have opted to use VR services. The percent of workers offered M/A increased, but the portion of those offered services who declined those services did not change, it remained about 1/3rd of those receiving offers.

A surprising large percent of QIWs received offers of M/A and still were able to take advantages of VR plan services in the post-reform period. Some of these disputed the M/A offer. Others may have received services after the M/A failed to last 12 months. Still others may be recalling offers of M/A that occurred outside of the vocational rehabilitation process; for example, an effort during the temporary disability period to modify work, prior to the determination of QIW status.

B. Work Status

A primary concern of the VR benefit is to return workers to employment. Therefore, we often evaluate the success of VR by the percent of workers that are working after injury. The following table shows the percent of workers surveyed who reported that they were working at the time of the interview. Also, presented are those who said they had worked since they were determined to be QIW, but were not currently working. Finally, some workers reported never working since they were determined to be QIW. The differences pre- to post-reform are not statistically significant.

	Work status at interview		
	Currently working	Worked since injury, but not currently employed	Never worked since injury
Pre-reform	60.5%	20.2%	19.5%
Post-reform	55.9%	20.6%	23.4%

These data should be interpreted cautiously. Most important, it would be incorrect to assume that a successful program would find 100% of workers working at the time of interview. Many observers assume that because the workers were working at the time of injury (a necessary condition for suffering a work related injury), that they would be working at a future date in the absence of an injury.

For this project, we compared a sample of workers that were known to be working at a point in time and were interviewed at several future dates. After two years, approximately 85% were working at the time of interview. After three years, 81% were working at the time of interview. The workers in the Commission study were interviewed approximately 2.5 years after their injury. For the purposes of comparison, 80-85% working would be a starting point to estimate the work status of these workers in the absence of injury if we measured it through a survey process.

Consequently, we do find that workers qualifying for the VR benefit are working less than if they had not suffered an occupational injury resulting in QIW status.

Again, however, the workers in this group suffered an occupational injury severe enough to result in permanent impairment that excludes them from their pre-injury occupation. Recent work by RAND and several other groups has identified time out of work as a serious consequence of permanently disabling occupational injuries. Time out of work has been found to increase with the level of permanent disability. Workers qualifying for vocational rehabilitation benefits, on average, suffer more severe impairments than the average worker receiving permanent disability payments. Therefore, our expectation should be that these workers will spend considerably greater time out of the labor force than uninjured workers, even if VR is successful.

	Average Rating for QIWs	Average rating for all PD claims
Pre-reform	28.6%	
Post-reform	28.4%	
		16%

A useful comparison for qualified injured workers is to the work status of workers who suffered similar impairments but who were not judged QIW. That is, workers who had similar impairments but were not excluded by these impairments from returning to their usual occupation. If VR was successful, the outcomes of QIWs would be similar to the outcomes of workers who were similarly impaired, but not excluded from their occupation. These data are not yet available. They are currently being developed through the use of WCIRB and DEU databases.

However, it is possible to approximate the work status of similarly impaired workers using RAND's results. RAND's data rely on administrative data that is reported on a quarterly bases. Consequently for this comparison we use the survey responses concerning work status during the previous quarter. These are given below.

Work status in 3 months prior to interview		
Both periods		Percent
	Worked during quarter	69.9%
	No work in quarter	30.1%

How does this compare to the results that RAND found? To make the comparison, we weighted the RAND results for workers in the 10th quarter (our approximate interview data) after injury to reflect the distribution permanent impairments found in our sample of QIWs.

Work status in 3 months prior to interview			
Both periods		Survey	Expectation based on RAND findings
	Worked during quarter	69.9%	NA
	Self-employed	7.2%	NA
	Worked in 'covered' employment	62.7%	59.7%
	No work in quarter	30.1%	NA

Again, these data should be interpreted with caution. However, it can be seen that the expectations for work force participation will be low in a group with serious impairments similar to those experienced by workers qualifying for VR. Our expectation is that only 60% of workers with impairments of similar severity to those in our QIW sample will report quarterly earnings in the 10th quarter after injury.

EDD does not get all reported work if it is self-employment or 'under the table' employment. To that extent survey responses will over estimate employment relative to EDD quarterly earnings reports. 11.8% of employed workers reported self-employment (7.2% of sample). Removing the self-employed from the sample would leave 62.7% of the workers in 'covered employment' which would be higher but not significantly different than the expected proportion working (confidence interval ±4.4).

C. Earnings

Another important measure of success for employment programs is the earnings for recipients. Workers qualifying for VR have suffered a permanent impairment that precludes them from returning to their at injury occupation. Exclusion from one's occupation often means that a worker can not return to the at-injury employer. Consequently the QIWs are expected to fare worse than similarly impaired workers who are not QIW. First, workers have likely sorted themselves into occupations suited to their talents; hence, where they are likely to make a higher wage. Second, they and/or their employer may have invested in developing job specific skills. Third, the worker may have developed skills specific to the firm that are not transferable. Consequently, workers who cannot return to their occupation and especially workers who cannot return to their occupation and employer are expected to be more impacted by the same injury/impairment than a worker who is impaired but can return to their at-injury employer and job.

All earnings measures have to be considered cautiously. Past wages are highly correlated with future wages, but they are not expected to be the same. Hourly wages generally increase over time. Weekly, monthly or annual earnings are more likely to follow a lifetime earnings profile with rapid growth in the early years and declining earnings after 55. Also, earnings are driven by labor force participation and hours worked which may be higher at the time of injury. All of these considerations make it difficult to compare post-injury and pre-injury earnings. Consequently, we are working with WCIRB and DEU data and EDD to construct controls for the earnings calculations. In the meantime, we report the post-injury and pre-injury comparison.

We combine the earnings data for the pre and post reform periods for this part of the analysis because no differences were detected (as with labor force participation) between the two periods.

D. Earnings Data

For workers with some post-injury employment. The data are for the workers current or most recent job. Workers with no post-injury employment are excluded.

Measure	Mean Pre-injury	Mean Post-injury	Change	Percent Change
Earnings/Hour	$12.93	$12.81	-$0.12	-0.9%
Hours/Week	42.3	38.5	-3.8	-9.0%
Average Weekly Wage	555.62	494.16	-$61.46	-11.1%

Hourly wage:

The best measure of a worker's productivity is his/her hourly wage. Hourly wage measures the employer's perceived value of a worker independent of how many hours are worked. On this measure, QIWs earn very similar hourly wages pre- and post-injury. The difference is insignificant statistically. Again, caution should be used in interpreting these data. The pre-injury earnings are a good, but not necessarily an unbiased predictor of post-injury earnings.

Hours worked per week:

Workers' earnings depend in part on the amount of work they are able to obtain or undertake. The hours/week worked by VR participants is substantially lower in the post-injury period than in the pre-injury period. There are several possible explanations for this. Some observers argue that injuries occur more often when workers are involved in a lot of overtime, meaning that workers would be more likely to be injured during periods of high average hours/week. A more likely explanation of the difference though is that the permanent impairments suffered by these workers impose some limits on the amount of time they can work.

Average weekly earnings:

Driven by the fewer hours worked per week, the average weekly earnings decline for QIWs post injury. This is not a function of the hourly earnings, which are stable pre and post-injury.

These data are only for those workers with post-injury employment. Approximately 20% of QIWs have never worked since injury. These workers have no post-injury earnings experience for comparison. It is likely that one reason that they did not work after injury was that the wages offered were too low to be attractive.

Earnings summary:

It is supportive of the VR effort that the hourly earnings are similar pre and post-injury. That suggests that those workers who were able to return to work achieved a productivity level that was similar to their pre-injury level. To the extent that their hourly earnings would have been higher because of wage growth, they may not have achieved parity with pre-injury productivity. Hourly earnings profiles are not available for a similar set of workers. Information obtained from EDD is for quarterly wages.

Because time out of work is similar to that experienced by workers with similar impairments as recorded by RAND, it is likely that when the controls are constructed and EDD data is obtained, the earnings of QIWs will compare favorably with workers who suffered injuries resulting in similar levels of impairment.

E. Predictors of Labor Force Participation

Some analysis has been run on the predictors of post-injury labor force participation by QIWs. Much of this analysis is running counter to customary perceptions. Consequently, much more work remains to be done before conclusions about this area can be reached. However, these data are interesting and informative.

Labor force participation was evaluated against several variables that are commonly thought to be predictive in this type of situation. In particular, we tested education, pre-injury average weekly wage, gender, age, permanent disability rating and a measure constructed from self-reported measures of the frequency and severity of any chronic pain complaints.

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.418	.183		7.737	.000
PAIN	-3.285E-02	.008	-.206	-3.919	.000
RATING	-1.171E-03	.002	-.037	-.689	.491
Education level	-1.782E-02	.013	-.073	-1.396	.164
Age	-1.107E-02	.002	-.245	-4.672	.000
PREAWW	1.144E-04	.000	.080	1.454	.147
SEXDUMMY	4.505E-02	.053	.046	.849	.396

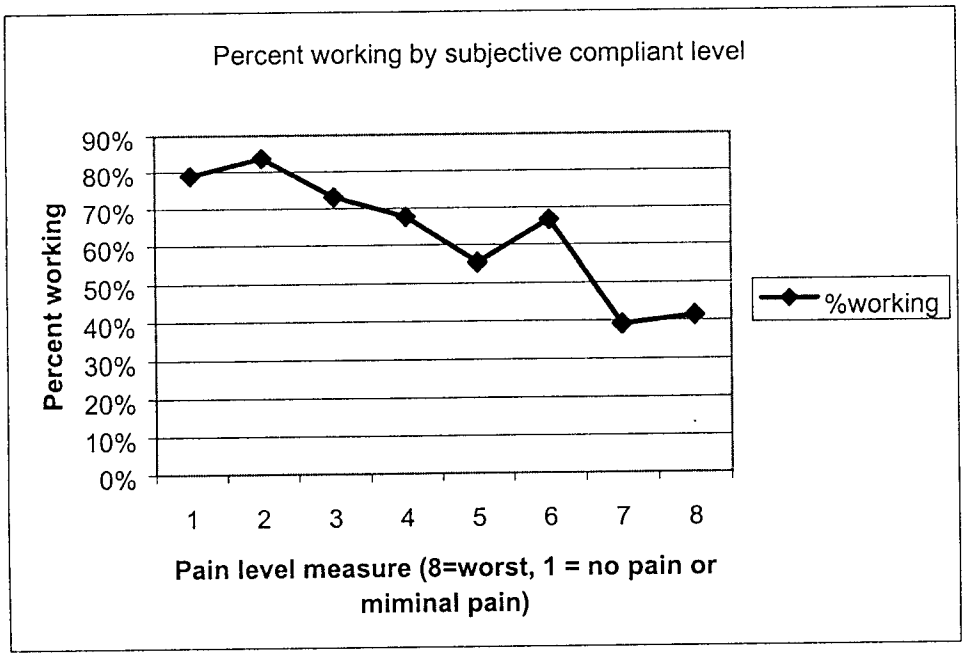
a Dependent Variable: BINARYWK

Surprisingly, education, pre-injury average weekly wage, gender (effect shown is the impact of being female rather than male) and permanent disability ratings were not significant predictors of labor force participation. The direction of the signs is generally as expected, but they have little significance in the equation. Education on the other hand has a negative value (more education leads to lower labor force participation). This is counter to normal expectations. However, with further research it may turn out that given the types of jobs related to more education, that the types of impairments that can lead to being declared QIW are particularly disabling.

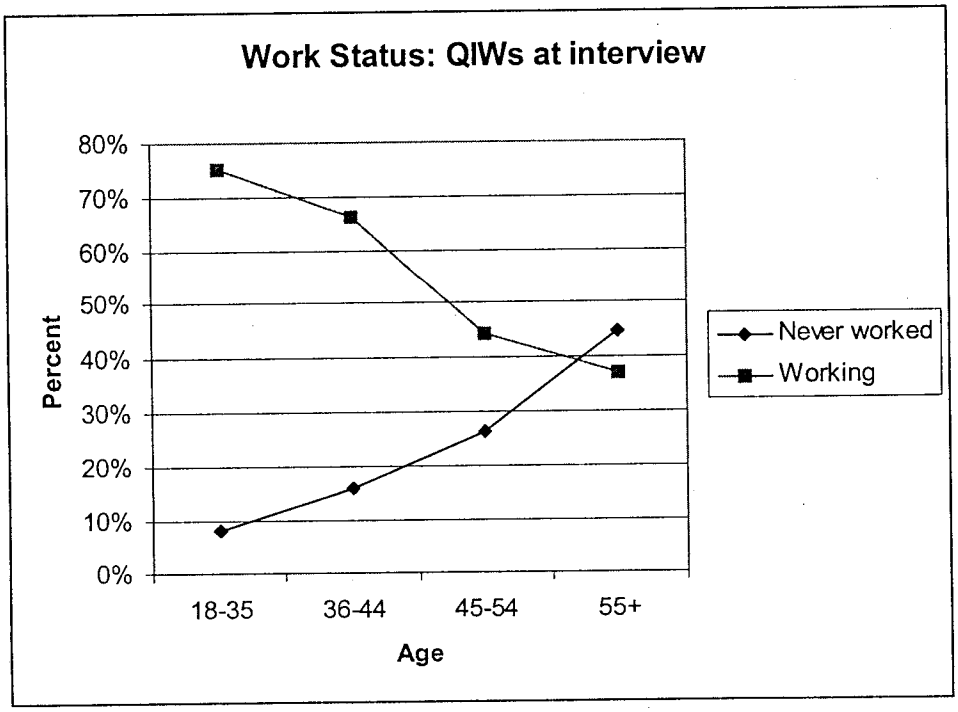
The two variables that are predictive are the PAIN variable and the AGE of the injured worker.

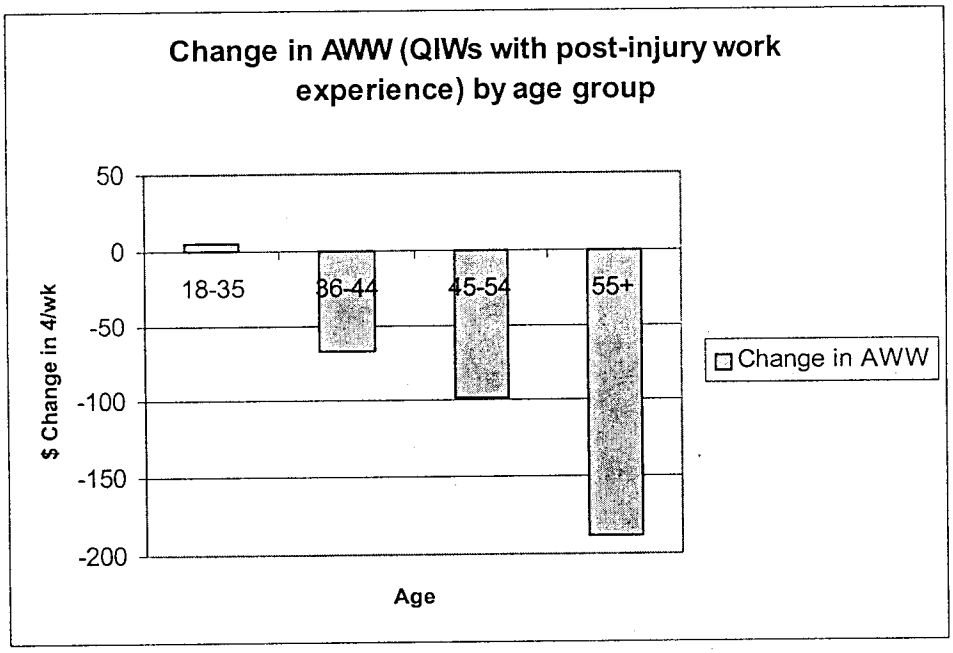
Subjective complaints were strong predictors that the respondents would not be working at the time of interview. The PAIN variable is constructed from several questions on the survey that ask the respondents if they experienced pain due to their injury and if so, how frequent and how severe that pain was. The frequency and severity measures were combined in to an 8 level scale.

On the other hand, PD ratings were not predictive, even though these ratings often contain a subjective component.



Age was the strongest predictor that a worker would be out of the work force at the time of interview. The likelihood that a worker will be working at the time of interview declines by 1.1% for each additional year of age at the time of injury. It may be that VR services are less successful or poorly targeted at older injured workers. An alternative solution may be to offer an option to workers over some threshold age to compromise the issue of VR for a cash settlement.




Change in AWW (QIWs with post-injury work experience) by age group
50
0
-50
-100
-150
-200
$ Change in 4/wk
18-35
36-44
45-54
55+
Age
Change in AWW