

Evaluation of the Vocational Rehabilitation Pilot Program

Report to the Washington State Legislature (second of three annual reports)
As required by ESSB 5920 (Chapter 72, Laws of 2007)

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KEY TO ABBREVIATIONS

AAPOR	American Academy of Public Opinion Research
AWA	Ability to work assessment
CI	Confidence interval
CM	Claim manager
ESD	Employment Security Department
ESSB	Engrossed Substitute Senate Bill
FTE	Full-time equivalent
IRR	Incidence rate ratio
IW	Injured worker(s)
L&I	Washington State Department of Labor and Industries
N/A	Not applicable
NS	Not statistically significant
PD	Plan development
PI	Plan implementation
RTW	Return(ed) to work
UBI	Unified Business Identifier
UW	University of Washington
VIP	Vocational Improvement Project
VRC	Vocational rehabilitation counselor
VRS	Vocational Rehabilitation Specialist
VSS	Vocational Services Specialist
WA	Washington
WAC	Washington Administrative Code

EXECUTIVE SUMMARY

Introduction

Engrossed Substitute Senate Bill (ESSB) 5920 created a pilot program in an effort to make needed improvements to the workers' compensation vocational rehabilitation system. The legislation was implemented January 1, 2008 and is scheduled to sunset June 30, 2013. The legislation included provisions for an independent evaluation so that informed decisions could be made regarding permanent continuation of the entire pilot program or selected components. Pursuant to ESSB 5920, the Washington State Department of Labor and Industries (L&I) implemented the Vocational Improvement Project (VIP). L&I contracted with the University of Washington (UW) to conduct an independent evaluation of this pilot program (contract number K1009). The research findings and views expressed throughout this report are the responsibility of the authors, and do not necessarily reflect the views of L&I.

This report is the second of three reports to be prepared and submitted to the Legislature documenting the findings of the evaluation. The first evaluation report was submitted in December 2010, and the final report will be submitted in December 2012. This report, like the first report, is preliminary, since most employment and worker satisfaction outcomes data are not yet available and it is too early to draw conclusions about the overall effect of the pilot program. In addition, self-insured claims were necessarily excluded from many analyses contained in this report due to limited available data.

ESSB 5920 directed the following changes from January 1, 2008 through June 30, 2013:

- Provides access to better training opportunities by increasing available tuition to up to \$12,000 and allowing programs up to two years. The benefit amount is indexed to changes in Washington's community college tuition rates.
- Permits eligible workers to select an alternative to retraining and instead receive a vocational award equivalent to six months of time-loss, and immediately close their claim, with the ability to use their retraining funds after claim closure. [This is known as Option 2.]
- Increases accountability for the worker and VRC by requiring accountability agreements, defining acceptable reasons for interrupting a plan and establishing time limits on plan development.
- Sets expectations for employers by limiting valid job offers by employers that must be accepted by the worker to those within 15 days of plan development commencing.
- Sets expectations for the department by requiring them to act on a submitted plan within 15 days or the plan is deemed approved.
- Establishes partnerships with a number of WorkSource locations and provides vocational services from these locations.

- Creates new return-to-work opportunities by engaging with business and labor organizations to identify or establish training opportunities in high-demand occupations focusing on keeping workers in their industry of choice.

Evaluation Approach

The scope of this evaluation includes both State Fund and self-insured claims. These two populations are quite distinct. As a brief description, at the time of plan eligibility determination under the pilot program:¹

- All self-insured workers had large employers (defined as 50 or more full-time employees), compared with 40% of State Fund workers ($p < .0001$)
- 22% of State Fund workers were female, compared with 44% of self-insured ($p < .0001$)
- Average age was 45 for State Fund workers compared with 51 for self-insured ($p < .0001$)
- 34% of State Fund workers lived in a rural county, compared with 30% of self-insured ($p = .04$)
- Average adjusted monthly pre-injury wages were \$3,497 for State Fund workers and \$3,773 for self-insured (not directly comparable, due to different reporting requirements for State Fund versus self-insured employers)
- On average, about 3.5 years had passed since the injury for both State Fund and self-insured workers

Three data sources were available to us: (1) data from two surveys conducted specifically for this evaluation, (2) L&I's administrative databases, and (3) wage data from the Employment Security Department (ESD). Survey A collected baseline data from workers as they were determined eligible and referred for plan development. Survey B collected follow-up information on use of acquired skills, employment outcomes, and satisfaction from workers who had a plan approved after January 1, 2008 (recently completed; results not yet available). The State Fund maintains detailed administrative data regarding vocational services utilization and vocational referral outcomes. The data available for self-insured claims were much more limited, particularly prior to 2008. Rules to implement the pilot program addressed this by identifying new reporting requirements for self-insurance (e.g., reporting of plan development and plan implementation referrals to L&I is now required for self-insured claims). However, most administrative data analyses comparing pre-pilot to post-pilot time periods were not possible to implement for self-insured claims, and self-insured claims were necessarily excluded from many analyses contained in this report.

¹ The sample constructed for these comparisons includes injured workers determined eligible for a retraining plan between January 1, 2008 and December 31, 2010. If a worker was determined eligible more than once during this time period, the first eligibility determination was retained. This sample contained 5,666 injured workers (5,021 State Fund and 645 self-insured).

The pilot program began January 1, 2008. For descriptive presentations of plans approved under the pilot, we generally included qualifying plans with an approval date on or after January 1, 2008. In contrast, when we drew comparisons between pre-pilot and post-pilot practices or events, we most often used the following dates to define 18-month baseline and pilot periods:

Baseline: January 1, 2006 through June 30, 2007

Pilot: July 1, 2009 through December 31, 2010

Each of the elements required by ESSB 5920, along with supplementary elements requested by L&I to meet additional informational needs, will be addressed in at least one of the three reports to be issued over the course of this five-year evaluation.

This second report covers the following elements. In the final report we will add further elements, as well as updating the analyses presented herein.

- The department's performance with regard to the provision of vocational services.
- The types of training programs approved.
- The number and demographics of workers who choose to opt out of vocational services.
- Employment and earnings status at various times subsequent to claim closure for workers who choose to opt out of vocational services.
- Are workers who select Option 2 different from workers who select Option 1? If so, how are they different?
- Do the characteristics of those referred to WorkSource vs. the private sector differ, and how do they differ?

Findings

Based on the preliminary findings presented in this report, the following areas were particularly noteworthy and we will discuss each in turn:

1. We found evidence for a number of improvements in efficiency under the pilot program (compared with baseline).
2. Workers with previous plan development referrals were not more likely to choose Option 2, contrary to expectations. In fact, there were few notable differences between those choosing Option 2 over a retraining plan. In contrast, there were striking differences between those who obtained a plan and chose either option compared with those who did not obtain a plan within a year of plan eligibility determination. We also provide some preliminary (and purely descriptive) employment outcome information for those choosing Option 2.

3. Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand. However, the percentage of plans with high demand goal occupations is gradually rising over time (both State Fund and self-insured).
4. Based on Survey A, administered as workers were determined eligible for a retraining plan (and before retraining commenced), most workers had positive opinions about the workers' compensation system in general and the vocational rehabilitation system more specifically. Negative opinions were strongly associated with having been referred for plan development more than once and with more time passing since the injury (among other factors).

Efficiency Improvements

We found preliminary evidence of a number of improvements in efficiency under the pilot program (compared with baseline). Self-insured claims were excluded from these analyses due to the absence of the necessary comparison data prior to 2008. As in last year's report, we observed substantially fewer repeat referrals for State Fund claims under the pilot. However, the reduction in repeat ability to work assessment (AWA) referrals appeared smaller in this year's report compared with the 2010 report. From baseline to pilot, the percentage of claims with repeat referrals decreased by:

- 27% for ability to work assessment (AWA) referrals
- 25% for plan development (PD) referrals
- 31% for plan implementation (PI) referrals

At baseline, 38% of first-time State Fund plan development referrals had a plan submitted to L&I, compared with 61% post-pilot. Compared with baseline claims, post-pilot claims were more than twice as likely on average to have a plan submitted to L&I at any point after plan development referral. Further, the timing of plan submissions that we observed was consistent with the new 90-day submission requirement having been the mechanism that encouraged timelier plan submissions. In addition, the overall duration from plan development referral to retraining has decreased for State Fund claims under the pilot; on average, at any point in time after plan development referral, post-pilot claims were 54% more likely than baseline claims to have had retraining begin.

Of plans approved during the post-pilot period, only 9 State Fund plans (0.2%) were deemed approved by default. There was a significant reduction in the percentage of State Fund plans that took more than 15 days for plan approval from the baseline period (6.6%) to the pilot period (1.9%). This indicates that the time delay from plan submission to approval has been significantly reduced under the pilot, and that only a small number of approvals took longer than 15 days.

Finally, the duration from retraining plan completion to claim closure for workers determined employable has decreased under the pilot. At baseline, 55% of State Fund completed plans had the claim closed, compared with 76% post-pilot. Compared with baseline plans, post-pilot completed plans were 49% more likely on average to have the claim closed at any point after a completed plan.

Option 2

Option 2 permits eligible workers to select an alternative to retraining. They can instead choose to receive a vocational award equivalent to six months of time-loss and immediately close their claim, with the ability to use their retraining funds after claim closure. Option 2 was chosen by 26% of workers with State Fund and 30% of workers with self-insured claims. Workers with previous plan development referrals (an indication of problems with previous plans) were not more likely to choose Option 2. This was surprising, since Option 2 has been described as a mechanism to allow workers to exit the system who previously had no viable means to do so. The fiscal note for ESSB 5920 incorporated the assumption that workers who had previously participated in incomplete retraining plans would choose Option 2 more often (about half the time), when in fact there appears to be little or no difference. We expect to learn more about workers' motivations for choosing Option 2 from the responses to Survey B, which will be available for next year's report.

Based on administrative claims data, there were few notable differences between those who chose Option 2 and those who chose a retraining plan, but workers with lower pre-injury wages, who were male, and who had less education tended to choose Option 2. Survey respondents who thought that their plan would have a negative effect on their ability to return to work were more likely to choose Option 2. Other than that one logical finding, none of the survey questions were significant predictors of option choice, including workers' opinions about the workers' compensation system generally or the vocational rehabilitation system in particular, job/occupational longevity or apprenticeship prior to injury, self-rated health, self-rated non-work functioning, or questions about economic risk.

In contrast, there were a number of striking differences between those who did not obtain a plan within a year of being determined eligible for retraining compared with those who did have a plan approved and subsequently chose either option. Those with no plan were more likely to:

- Be older at the time of the survey
- Have had more time pass since their injury
- Have been determined eligible for a plan more than once prior to the survey
- Have worked for their employer and/or in their occupation longer before their injury
- Report poor self-rated health and/or poor self-rated non-work functioning
- Think that the workers' compensation system is ineffective

- Be dissatisfied with the vocational rehabilitation system
- Think that the retraining plan would have a negative effect on their ability to return to work
- Be uncertain they would return to work within 6 months of completing the retraining plan

This is a relatively heterogeneous group of workers that did not obtain a plan for a wide variety of reasons. For some, the outcome heralded the end of the worker’s participation in the vocational rehabilitation process; vocational services were determined not appropriate for 32% (for a variety of reasons), and 8% of injured workers were determined able to work or had returned to work. For others, there were avoidable or unavoidable delays and the person may eventually begin retraining: medical instability (18%), administrative problems or staffing changes or with the vocational referral or the vocational counselor (14%), or the proposed retraining plan was denied (7%). There were 22% with an unknown status or unknown reasons for the delay. However, the vocational rehabilitation system does not seem to be meeting the needs of many in this group, despite various improvements over time and the current availability of Option 2 under the pilot program. Obtaining a better understanding of the particular needs of workers in this category will likely be critical in order for L&I to be able to develop initiatives that can address the needs of all injured workers, particularly those with the most challenging health situations and those who get “stuck” or continue to cycle repeatedly through the system.

Preliminary summaries of employment outcomes for those choosing Option 2 were based on ESD data. Among those choosing Option 2, 42% of workers with State Fund claims and 27% of workers with self-insured claims returned to work within 3 years of claim closure. Those who returned to work experienced a 46% drop in average wages, and earned less than full-time minimum wage in an average quarter. Those earning more pre-injury also earned more on return to work, but had a larger percent drop in average wages. It is important to note that these analyses are purely descriptive. They do not control for the effects of changing job market conditions, and the severe recession occurring during this same time period would likely have accounted for significant but unknown decrements in the likelihood of: (1) finding work, and (2) earning post-retraining wages comparable to or surpassing pre-injury wages. We do not yet know whether workers who complete a retraining plan do better. Employment outcomes for those choosing Option 1 will be included in next year’s report (there are insufficient outcomes data available at this time, due to the length of the retraining plans).

High Demand Goal Occupations

Under the pilot program, 51% of State Fund plans and 76% of self-insured plans had high demand goal occupations. The 46 most frequent goal occupations (with at least 17 plans each) accounted for 80% of vocational plans. Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand. For example, the 3rd most prevalent occupational goal was “Electrical and Electronic Equipment Assemblers.” This occupation was the goal of 172 plans, yet was rated high demand for only one fifth of those

plans (demand ratings for the same occupation can vary by labor market area and over time). We understand that there are many factors to consider when selecting an occupational goal for each worker in retraining, and that capacity, abilities, preferences, and training opportunities must be weighed on a case-by-case basis. In addition, we do not yet know whether training in high demand occupations results in better employment outcomes. This issue will be addressed in the final report when we expect adequate outcome data to be available. However, it may be useful for L&I to consider whether the relatively high frequency of several occupational goals that were rarely rated high demand are a possible indication of misaligned or inadequate retraining opportunities or perhaps some other systematic problem in occupational goal identification. On a more positive note, the percentage of plans with high demand goal occupations is gradually rising over time (for both State Fund and self-insured plans).

Workers' Opinions

Based on Survey A, administered as workers were determined eligible for a retraining plan (and before retraining commenced), most workers had positive opinions about the workers' compensation system in general and the vocational rehabilitation system more specifically. Among workers determined eligible for plan development in the fall of 2009:

- 69% assessed the workers' compensation system as at least somewhat effective (about the same for workers with State Fund or self-insured claims)
- 69% were at least somewhat satisfied with the vocational rehabilitation system (71% for workers with State Fund claims versus 58% for those with self-insured claims)

These figures are strikingly similar to results of previous surveys of workers in the Washington State workers' compensation system (these surveys were not limited to workers in the vocational rehabilitation system).

The following characteristics were significantly associated with negative responses to both questions (and the observed differences were quite large):

- More time having passed since the injury
- Having been determined eligible for plan development more than once
- Interviewed in English rather than Spanish
- Poor health
- Poor ability to function outside of work

Older workers and those who had completed a formal apprenticeship were more dissatisfied with the vocational rehabilitation system on average. In addition, workers reporting more economic problems were more likely to rate the workers' compensation system as ineffective.

The strong association between negative opinions and (1) having been referred for plan development more than once and (2) more time having passed since the injury suggests that a focus on further process and efficiency improvements could improve workers' experiences and assessments of the workers' compensation system generally and the vocational rehabilitation system in particular.

Conclusions

It is too early to draw conclusions about the overall effect of the pilot program. Adequate information about employment and satisfaction outcomes is not yet available, and will be crucial for a more comprehensive assessment of the effects of the pilot as well as an assessment of whether there have been any unintended consequences of the apparent increases in efficiency we have observed thus far. This additional information will be included in the final report next year. Further, although we have compared the pilot program with a baseline period and taken great care to make our samples as comparable as possible, we cannot say with certainty whether the changes we observed were due only to the pilot program. This is a highly complex program with many facets and no concurrent comparison group. L&I implements process changes and improvements in an ongoing way, not all of which are related to the pilot program. Such internal process changes, as well as changes over time in external economic and social conditions, may have contributed to some of the changes we observed.

However, this report provides evidence that there have indeed been a number of improvements in efficiency under the pilot program. There is also room for further improvement, particularly in the areas of selecting high demand goal occupations, further reducing repeat vocational referrals and delays, and developing better ways to meet the needs of injured workers with the most challenging health situations and those who get "stuck" or continue to cycle repeatedly through the system. The data sources that we have available to us are quite rich and we are reasonably confident that by the final report in the fall of 2012 we will be able to make some valid evaluative judgments about the effects of this major initiative.

CHAPTER 1. INTRODUCTION

Engrossed Substitute Senate Bill (ESSB) 5920 created a pilot program in an effort to make needed improvements to the workers' compensation vocational rehabilitation system. The legislation was implemented January 1, 2008 and is scheduled to sunset June 30, 2013. The legislation included provisions for an independent evaluation so that informed decisions could be made regarding permanent continuation of the entire pilot program or selected components. Pursuant to ESSB 5920, the Washington State Department of Labor and Industries (L&I) implemented the Vocational Improvement Project (VIP). L&I contracted with the University of Washington (UW) to conduct an independent evaluation of this pilot program (contract number K1009). The research findings and views expressed throughout this report are the responsibility of the authors, and do not necessarily reflect the views of L&I.

This report is the second of three reports to be prepared and submitted to the Legislature documenting the findings of the evaluation. The first evaluation report was submitted in December 2010, and the final report will be submitted in December 2012.

This introductory chapter of the report (1) provides background information on the vocational rehabilitation program; (2) describes the goals of ESSB 5920, the operational changes it brought about, and its anticipated outcomes; and (3) outlines key elements of the evaluation. In addition, we present information on new legislation passed during the recent legislative session that may affect future demand for vocational rehabilitation services. The second chapter describes in more detail the methods used to perform the analyses presented in this report. The third chapter presents the findings of the analyses. In the fourth and final chapter, we discuss our findings and present our assessment of L&I's performance and of whether the pilot program has contributed to improvements in Washington State's workers' compensation vocational rehabilitation program. This assessment, like the first report, is still preliminary, since most employment and worker satisfaction outcomes data are not yet available. This was a highly complex intervention with many facets and no concurrent comparison group. However, the data sources that we have available to us are quite rich and we are reasonably confident that by the final report in the fall of 2012 we will be able to make some valid evaluative judgments about the effects of this major initiative.

Background

The goal of getting injured workers back to work in a timely fashion has presented and continues to present significant challenges for the workers' compensation system. While the substantial majority of injured workers return to work fairly soon after injury, a small percentage remain off work and on disability for extended periods of time that may in some cases last for years. The purpose of workers' compensation vocational rehabilitation programs is to assist workers with compensable injuries or illnesses to return to work. Vocational rehabilitation programs support activities aimed at assessing whether the injured worker can return to work for the employer of

injury, determining the worker's ability to work if he or she cannot return to work for the employer of injury, developing a plan for retraining the worker if needed, and supporting the training effort if retraining is initiated.

To be successful, vocational rehabilitation programs must be well-designed, must have effective coordination among stakeholder groups and parties involved in the rehabilitation process, and must offer appropriate incentives that both foster efficiency and effectiveness and support the general goals of the rehabilitation program. The design and operation of cost-effective vocational rehabilitation programs within the workers' compensation setting have proven to be challenging. Often program goals are unclear, program activities are not well coordinated, and parties and stakeholder groups involved in the rehabilitation process may work at cross-purposes. A recent article by researchers at the Institute for Work and Health in Toronto, Canada outlines some of the problems encountered in fostering return to work and in retraining workers in workers' compensation vocational rehabilitation programs.² Despite the importance of vocational rehabilitation programs and the cost (Washington State vocational rehabilitation expenditures in 2006 were nearly \$50 million³), little formal research or evaluation specific to the workers' compensation setting has been published.

Like many workers' compensation vocational rehabilitation programs, the vocational rehabilitation program in Washington State has faced a number of challenges and has evolved over time. L&I has a history of collaborative efforts with stakeholders to improve the performance of the vocational rehabilitation program. ESSB 5920 represents the latest—and most ambitious and comprehensive—effort to revamp the system, one with the potential to create real opportunity for improving the system's efficiency and effectiveness and for achieving return-to-work goals. Understanding the historical context of ESSB 5920 and L&I's past efforts to improve performance is useful. Some of these efforts were discussed in a report prepared by the Upjohn Institute for Employment Research that reviewed the L&I pension system, which we summarize below.⁴

Prior to 1982, vocational rehabilitation services were provided on a discretionary basis, and an injured worker was not entitled to time-loss payments if he or she was medically stable. In 1982, the Legislature enacted mandatory vocational rehabilitation and stipulated that time-loss payments could continue if the injured worker was receiving vocational rehabilitation assistance. Shortly thereafter, the number of referrals to vocational rehabilitation increased, as did average

² MacEachen E, Kosny A, Ferrier S, Chambers L. The "toxic dose" of system problems: why some injured workers don't return to work as expected. *Journal of Occupational Rehabilitation*; 2010, 20(3), 349-366.

³ Barth P, Grob H, Harder H, Hunt A, Silverstein M. *Washington Pension System Review, Upjohn Institute Technical Report No. 08-025*. Prepared for State of Washington, Department of Labor & Industries, Contract No. K1018. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research; 2008. Available at: <http://www.upjohninst.org/publications/tr/tr08-025.pdf> (accessed 8/12/10).

⁴ Ibid.

time-loss duration. At the same time, vocational rehabilitation expenses paid by L&I increased significantly, from approximately \$1.1 million in 1981 to \$22.4 million in 1985.

In 1985, mandatory vocational rehabilitation was repealed, and L&I adopted a new approach that made the Claim Manager (CM) responsible for the referral process. Previously Vocational Rehabilitation Specialists (VRS) working in the claims units had been responsible for managing referrals. The VRS's became responsible for advising the CMs with regard to referrals and decisions and issues affecting them. Up to 2001, L&I contracted with large firms to provide vocational rehabilitation services and these firms provided a certain degree of internal quality control. In 2001 the Washington Administrative Code (WAC) was changed, eliminating the contract arrangements and allowing more vocational rehabilitation counselors to establish independent businesses. The focus of the vocational rehabilitation program was on moving injured workers through the system and on developing individual plans for retraining. Less emphasis was placed on getting an injured worker back to work in a timely fashion or on establishing that an injured worker could indeed benefit from vocational rehabilitation services. Program costs continued to rise and time-loss duration increased. The change in the WAC opened the system up and created greater capacity, but in some ways had the effect of reducing accountability needed to ensure the operational effectiveness and efficiency of the system. In order to address some of these issues and deliver more timely and effective services, L&I introduced the Vocational Improvement Initiative in 2005 and implemented aspects of the initiative through mid-2007.

In the meantime in 1998, a Joint Legislative Audit Review Committee determined L&I was not in compliance with the requirement to monitor the quality of the external vocational rehabilitation services. This finding led initially to the STAR system, developed by William Mercer Inc., and later to the development of the Complexity-Adjusted-Cost-Outcome (CACO) system in 2000. Both of these monitoring systems encountered substantial criticism within the vocational rehabilitation community. In particular, it was felt that CACO rewarded early vocational referral closure at the cost of a successful outcome that could move the claim toward resolution. With the benefit of hindsight, one might conclude these efforts to improve L&I's ability to monitor system performance did little to foster real system improvement, in part because they created at least the perception of disincentives for effective achievement of return-to-work goals and built an administrative layer of oversight onto a system that was not well-designed in the first place. In 2006, as a result of litigation brought against L&I, the Department was ordered to replace CACO with a different system for monitoring the performance of vocational rehabilitation service providers.

ESSB 5920

ESSB 5920 was passed in 2007 and established a five-and-a half year (January 1, 2008 to June 30, 2013) pilot Vocational Improvement Project (VIP). It directed the implementation and evaluation of a number of fundamental changes in the design and operation of vocational rehabilitation services during this pilot program. ESSB 5920 also directed L&I to create a vocational rehabilitation subcommittee for at least the duration of the pilot program. The subcommittee is responsible for making recommendations to L&I and the Legislature regarding any additional statutory changes needed, including extension of the pilot program, as well as advising the Department regarding implementation of the legislation.

The following summary of changes and expected outcomes pursuant to ESSB 5920 was provided to us by L&I in the Description of Services Requested, issued on May 27, 2008.

The legislation implements the following changes from January 1, 2008 through June 30, 2013:

- Provides access to better training opportunities by increasing available tuition to up to \$12,000 and allowing programs up to two years. The benefit amount is indexed to changes in Washington's community college tuition rates.
- Permits eligible workers to select an alternative to retraining and instead receive a vocational award equivalent to six months of time-loss, and immediately close their claim, with the ability to use their retraining funds after claim closure.
- Increases accountability for the worker and VRC by requiring accountability agreements, defining acceptable reasons for interrupting a plan and establishing time limits on plan development.
- Sets expectations for employers by limiting valid job offers by employers that must be accepted by the worker to those within 15 days of plan development commencing.
- Sets expectations for the department by requiring them to act on a submitted plan within 15 days or the plan is deemed approved.
- Establishes partnerships with a number of WorkSource locations and provides vocational services from these locations.
- Creates new return-to-work opportunities by engaging with business and labor organizations to identify or establish training opportunities in high-demand occupations focusing on keeping workers in their industry of choice.

Examples of expected outcomes of the legislation include:

- Shifting the cost of vocational rehabilitation and time-loss away from repeated attempts at counseling and plan development to retraining workers to return to the workforce – that is, the pilot should reduce "repeat referrals."
- Reducing the amount of time it takes to develop a viable retraining plan.
- Providing better support for workers who better fit non-academic training, such as OJTs.
- Improving the percentage of workers who successfully complete their retraining plan.
- Returning workers to higher wage jobs compared to the workers trained prior to the benefit change.
- Allowing workers the flexibility to pursue training or alternatives on their own.

New Legislation

Two laws were passed during the legislative session concluding May 25, 2011 that could potentially affect future demand for vocational rehabilitation services, though not within the timeframe of the current evaluation. The first law (SB 5801) takes effect July 1, 2011 and requires that 50 percent of injured workers covered by the State Fund have access to medical care provided through Centers of Occupational Health and Education (COHEs) starting in December 2013, with all injured workers having access to COHE services by December 2015. In an evaluation of the COHEs conducted by researchers at the University of Washington, it was found that the COHEs were associated with reduced incidence of long-term disability. As the COHEs expand over the next several years, it is possible that they could, by reducing the incidence of long-term disability, also reduce the demand for vocational rehabilitation services. Given the timing of the COHE expansion created by SB 5801, however, we do not anticipate this law will have any effect on the VIP evaluation.

The second law (HB 2123) takes effect June 15, 2011 and contains several provisions designed to improve the effectiveness and efficiency of the workers' compensation system. One provision, the Stay-At-Work Program, offers financial incentives to employers to provide injured workers with light duty or transitional work as an approach to reducing lost work time and fostering recovery. It is unclear to what extent the Stay-At-Work Program will affect the VIP. While the program will be initiated within the timeframe of the VIP evaluation, it will likely affect workers with more minor injuries than those incurred by workers who eventually obtain vocational rehabilitation services. A second provision of HB 2123 provides the option of resolving a claim through a structured settlement agreement between the involved parties. This provision takes effect January 1, 2012 for workers aged 55 and over as of that date. The eligible age for structured settlements drops to 53 on January 1, 2015 and then to 50 on January 1, 2016. Almost 20 percent of the injured workers determined eligible for retraining plans under the VIP are 55 or over. Thus, HB 2123 may eventually lower the demand for vocational rehabilitation services among older injured workers, however, not within the effective timeframe of the VIP evaluation.

Evaluation Approach

Exhibit 1.1 presents a diagram of our overall approach to this evaluation, including the changes produced by the legislation and the measures available to capture the effects of those changes. The scope includes both State Fund and self-insured claims. Three data sources were available to us: (1) data from two surveys conducted specifically for this evaluation, (2) L&I's administrative databases, and (3) wage data from the Employment Security Department (ESD).

Each of the elements required by ESSB 5920, along with supplementary elements requested by L&I to meet additional informational needs, will be addressed in at least one of the three reports to be issued over the course of this five-year evaluation.

ESSB 5920 specifically required the following research elements:

1. A report on the department's performance with regard to the provision of vocational services.
2. The skills acquired by workers who receive retraining services.
3. The types of training programs approved.
4. Whether the workers are employed, at what jobs and wages after completion of the training program and at various times subsequent to their claim closure.
5. The number and demographics of workers who choose to opt out of vocational services, and their employment and earnings status at various times subsequent to claim closure.

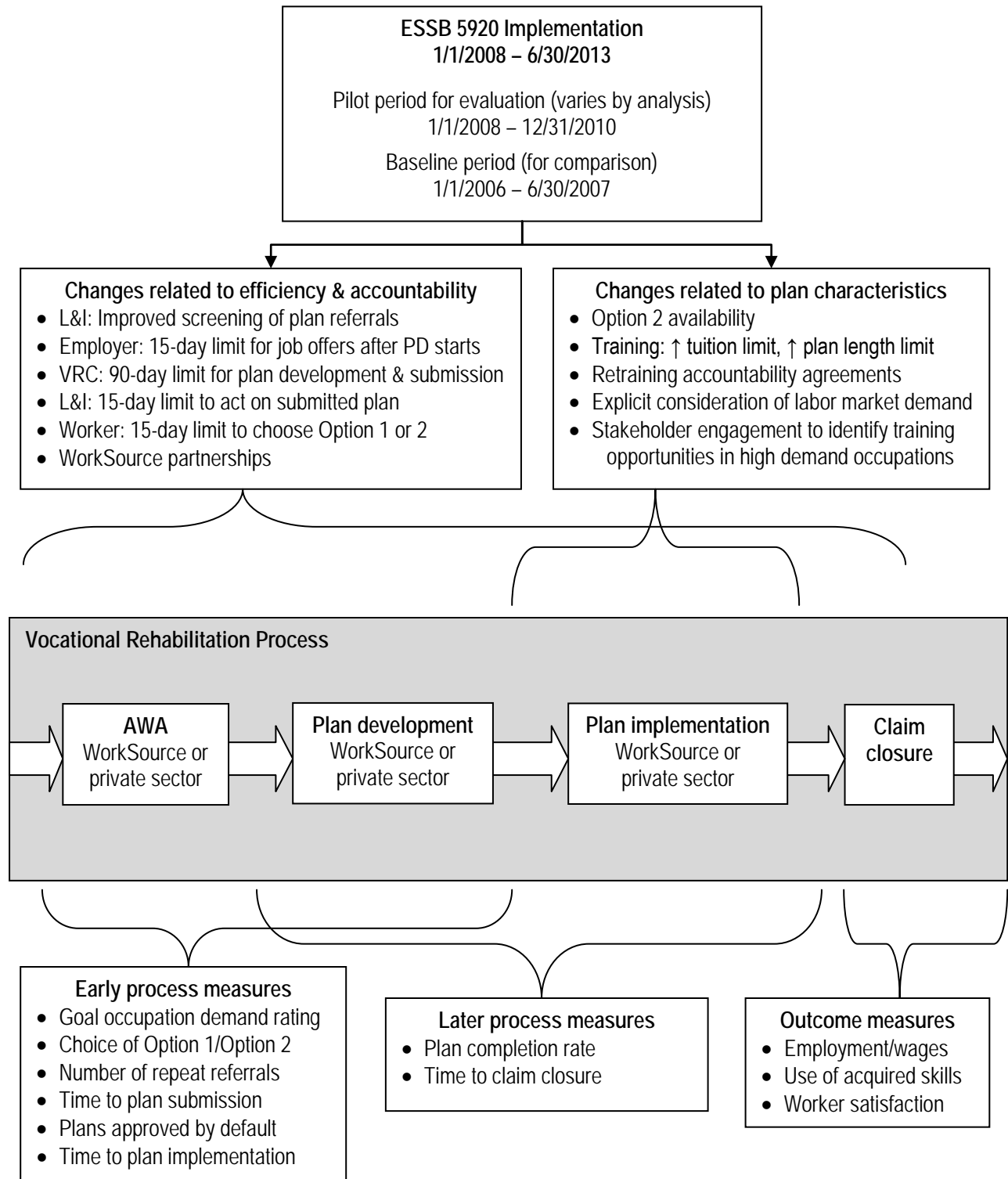
L&I requested several supplementary elements:

6. Do Option 1 workers participating in training programs under the new system have better return-to-work outcomes, including higher employment rates, return at higher wages as a share of the individual workers' pre-injury wage and employment that is sustained as opposed to workers who participated in training programs under the old system?
7. Are workers who select Option 2 different from workers who select Option 1? If so, how are they different? How many Option 2 workers can the Department anticipate requesting tuition? Do workers who choose Option 2 have different return-to-work outcomes than those who choose Option 1?
8. Do workers use the skills acquired in re-training in their re-employment?
9. Do the characteristics of those referred to WorkSource vs. the private sector differ, and how do they differ? Controlling for those differences, do outcomes differ?

This report covers the following elements from the above lists. It updates the analyses included in the first report and includes several new elements as shown in Exhibits 1.2 and 1.3. (The reader will note that the Results section of this report is organized somewhat differently in order to allow for a more intuitive flow.)

- The department's performance with regard to the provision of vocational services.
- The types of training programs approved.
- The number and demographics of workers who choose to opt out of vocational services.
- Employment and earnings status at various times subsequent to claim closure for workers who choose to opt out of vocational services.
- Are workers who select Option 2 different from workers who select Option 1? If so, how are they different?
- Do the characteristics of those referred to WorkSource vs. the private sector differ, and how do they differ?

Exhibit 1.1 Diagram of evaluation approach



Note: Upper brackets indicate process region affected by each change category.
Lower brackets indicate process region captured by each group of measures.

Exhibit 1.2 Anticipated reporting for each evaluation element

Evaluation Element	2010 Report	2011 Report	2012 Report
<i>Elements required by the legislation:</i>			
1. A report on the department's performance with regard to the provision of vocational services. (See Exhibit 1.3 for more detail.)	X (partial)	X (partial)	X
2. The skills acquired by workers who receive retraining services. ^a			X
3. The types of training programs approved.	X	X	X
4. Whether the workers are employed, at what jobs and wages after completion of the training program and at various times subsequent to their claim closure. ^{a,b}			X
5a. The number and demographics of workers who choose to opt out of vocational services.	X	X	X
5b. Employment and earnings status at various times subsequent to claim closure for workers who choose to opt out of vocational services. ^c		X	X
<i>Additional research questions requested by L&I:</i>			
6. Do option 1 workers participating in training programs under the new system have better return-to-work outcomes, including higher employment rates, return at higher wages as a share of the individual workers' pre-injury wage and employment that is sustained as opposed to workers who participated in training programs under the old system? ^b			X
7a. Are workers who select Option 2 different from workers who select Option 1? If so, how are they different?	X	X	X
7b. How many Option 2 workers can the Department anticipate requesting tuition? ^a			X
7c. Do workers who choose Option 2 have different return-to-work outcomes than those who choose Option 1? ^{a, b, c}			X
8. Do workers use the skills acquired in re-training in their re-employment? ^a			X
9a. Do the characteristics of those referred to WorkSource vs. the private sector differ, and how do they differ (for each referral type)?	X	X	X
9b. Controlling for differences between those referred to WorkSource vs. the private sector, do outcomes differ? ^b			X

^a Requires completion of Survey B.

^b Requires adequate time to observe outcomes after vocational plan completion.

^c Requires adequate time to observe outcomes after option choice.

Exhibit 1.3 Anticipated reporting for system performance measures (Item 1 in Exhibit 1.2)

Measure	Compare pilot with baseline?	2010 Report	2011 Report	2012 Report
Repeat referrals (for each referral type)	Yes	X	X	X
Plans submitted to L&I	Yes	X	X	X
Plan completions ^c	Yes		X	X
Plans approved by default	Yes	X	X	X
High-demand goal occupations	No	X	X	X
Time from plan development referral to retraining	Yes	X	X	X
Time from plan completion to claim closure ^b	Yes		X	X
Disputes ^d	Yes			X
Use of acquired skills ^a	No			X
Satisfaction outcomes ^a	No			X
Employment outcomes, by option choice ^{a,b}	No			X
Employment outcomes, by referral outcomes ^{a,b}	Yes			X
Employment outcomes, by job demand rating ^{a,b}	No			X

^a Requires completion of Survey B.

^b Requires adequate time to observe outcomes after vocational plan completion.

^c Requires adequate time to observe outcomes after option choice.

^d Administrative data regarding disputes not yet available.

CHAPTER 2. METHODS

This evaluation was designed to address all of the elements required by ESSB 5920, along with additional elements described in the Description of Services Requested issued by L&I as well as subsequent communications with L&I. The scope includes both State Fund and self-insured claims. Where possible, the State Fund and self-insured analyses were similar. However, the analyses for self-insured claims were necessarily more limited due to the more limited data available about self-insured claims (particularly prior to January 1, 2008).

Data Sources

Three data sources were available to us: (1) data from two surveys conducted specifically for this evaluation, (2) L&I's administrative databases, and (3) wage data from the Employment Security Department (ESD). The two surveys are described in more detail in the Survey Methods section. Survey A collected baseline data from workers as they were determined eligible and referred for plan development. Survey B collected follow-up information on use of acquired skills, employment outcomes, and satisfaction from workers who either completed Survey A or who had a plan approved after January 1, 2008 (recently completed; results not yet available).

The bulk of the data for this research were drawn from L&I's administrative databases, which contain detailed population-based information for workers participating in the vocational rehabilitation system. The State Fund maintains detailed administrative data regarding vocational services utilization and vocational referral outcomes. The data available for self-insured claims were much more limited, particularly prior to 2008. Rules to implement the pilot program addressed this by identifying new reporting requirements for self-insurance (e.g., reporting of plan development and plan implementation referrals to L&I is now required for self-insured claims). However, most administrative data analyses comparing pre-pilot to post-pilot time periods were not possible to implement for self-insured claims, and self-insured claims were necessarily excluded from many analyses contained in this report.

For the purposes of this evaluation, we obtained data about four types of vocational referrals: (1) early intervention (EI), (2) ability to work assessment (AWA), (3) plan development (PD), and (4) plan implementation (PI). (The Early Return to Work program and forensic vocational referrals were outside the scope of this evaluation.) The complete sample included State Fund and self-insured workers' compensation claims that had any vocational rehabilitation referral (of the four listed types) between January 1, 2006 and December 31, 2010. L&I employees and injured workers who were under 18 at the time of the data pull were excluded from this sample. All vocational referrals and related events on record for each of those claims were included in the master data set for this evaluation. L&I also provided us with ESD wage for the identified claims sample. There were a total of 51,739 claims meeting these criteria in the data set provided for this second report. Subsamples were selected as appropriate for each analysis. The number of included claims will expand for the final report as injured workers continue to enter the system.

Baseline and Pilot Periods

The pilot program began January 1, 2008. For descriptive presentations of plans approved under the pilot, we generally included qualifying plans with an approval date on or after January 1, 2008. For most other analyses where we drew comparisons between pre-pilot and post-pilot practices or events, we used the following dates to define 18-month baseline and pilot periods:

Baseline: January 1, 2006 through June 30, 2007

Pilot: July 1, 2009 through December 31, 2010

When different time periods were used, the details are in the corresponding Results section. For this report, we had data available through December 31, 2010. The dates for the baseline and pilot periods will be adjusted for the last report as more data become available. The event(s) used to assign claims to baseline or pilot periods (or to exclude them) varied for each analysis and are described in each results section (e.g., plan approval date, first start date of a specific type of referral). Our primary motivation was to ensure to the extent feasible that the baseline and pilot samples were comparable both in terms of having been exposed to either only baseline or only pilot practices and in terms of the amount of time available to observe specific events. The baseline period was set after the introduction of the Vocational Improvement Initiative in 2005, in order to minimize confounding. Our other motivation for the relatively recent and brief baseline period was to minimize confounding due to economic and other secular trends.

The baseline period excludes July 1, 2007 through December 31, 2007. The six months leading up to implementation of the pilot was a transitional period, and there were practice changes in anticipation of the pilot program's start date (for example, approval of "transitional" plans was intentionally deferred until after the pilot). We also excluded the first six months of the pilot (January 1, 2008 through June 30, 2008) for most comparisons. Deferred approval of "transitional plans" occurred during this period, as well as some other changes in vocational referral practices that did not continue long-term. For example, Exhibits 2.1, 2.2, and 2.3 depict trends in the monthly incidence of first-time referrals for AWA, PD, and PI referrals respectively (repeat referrals of the same type for the same claim were excluded from these graphs). The arrow indicates the start of the pilot program. The straight line shows the overall trend from January 2006 through December 2010. The wavy line shows the referral incidence for the previous 6 month moving average, which makes it easier to see trends in the monthly bars. The darker bars emphasize the 18 month baseline and pilot periods used for most analyses in this report.

These graphs suggest transitional changes in referral incidence that may still be continuing. Undoubtedly there has been a learning curve for all involved, workers, vocational service providers, as well as L&I. In addition, there have been ongoing practice adjustments and trainings related to the pilot program. We will revisit this issue in future reports and adjust pilot periods accordingly.

Exhibit 2.1 Incidence of initial ability to work assessment (AWA) referrals by month

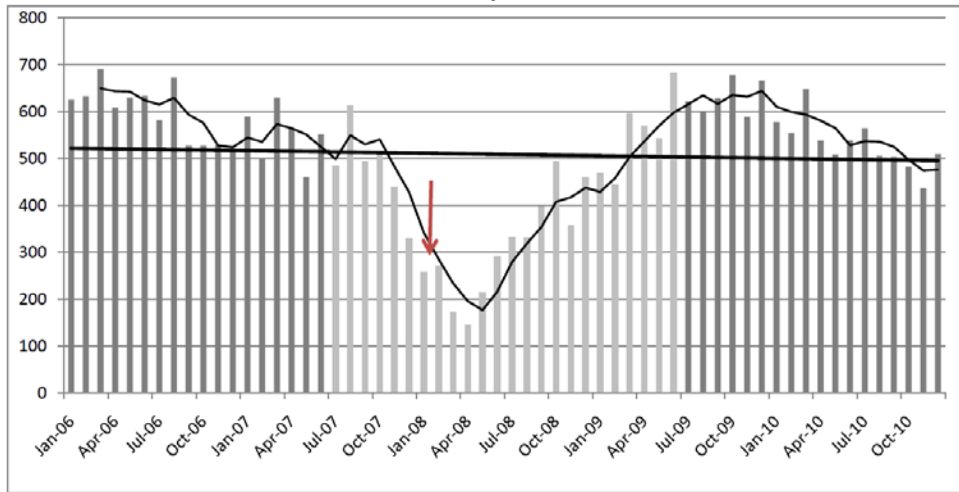


Exhibit 2.2 Incidence of initial plan development (PD) referrals by month

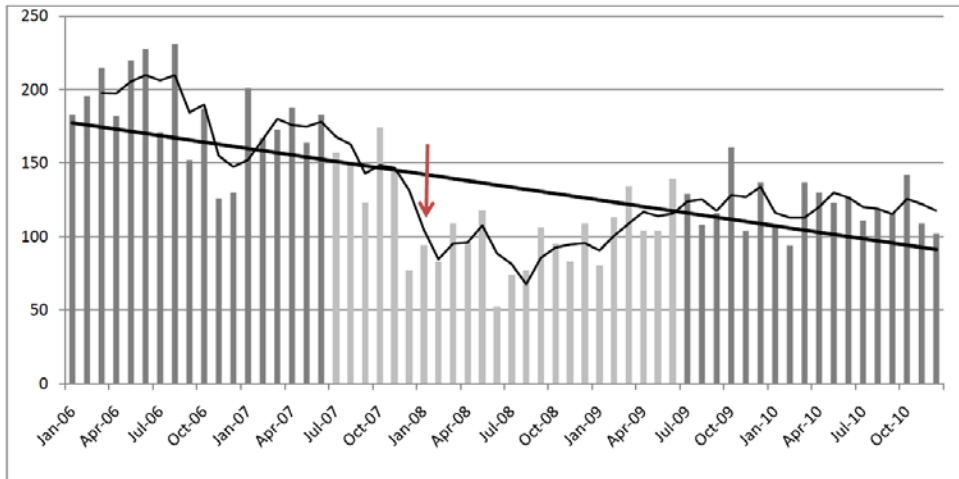
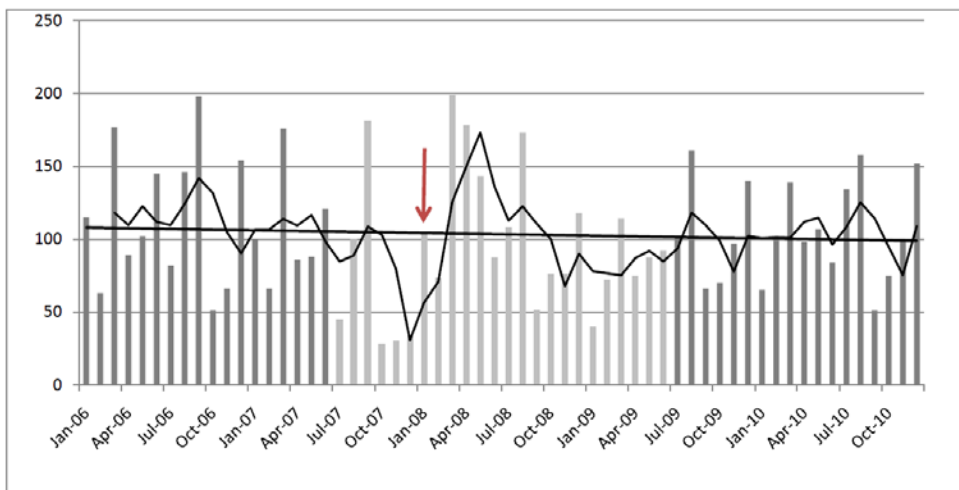


Exhibit 2.3 Incidence of initial plan implementation (PI) referrals by month



Data Definitions

Age. Age was calculated as the difference between the relevant date or event (as identified in each results section) and date of birth (obtained from L&I claims data).

Adjusted monthly pre-injury wage. This measure was based on the monthly wage at date of injury obtained from L&I claims data, standardized to January 2008 using the Consumer Price Index. Wages may or may not include health insurance payments made by the employer, depending on whether the employer continued to contribute after the injury. This measure is not directly comparable across State Fund claims and self-insured claims due to differences in reporting requirements.

Female. Obtained from L&I claims data.

Married. Obtained from L&I claims data.

One or more dependents. Obtained from L&I claims data. The continuous number of dependents was collapsed to a binary indicator of one or more dependents.

Preferred language not English. Obtained from L&I claims data. This indicator was set if any language other than English was specified.

Education. This information was obtained from L&I referrals data, and is based on the AWA report that recommended plan development. Continuous years of education were collapsed to 3 categories: (1) Grade 0-11, (2) High school graduate (12 years), and (3) Any post-secondary education (≥ 13 years). This measure was not recorded by L&I until April of 2009, so is available for only a subset of injured workers.

Physical capacity. Obtained from L&I referrals data. This information is based on medical information relevant to a worker's current physical capacity as contained in the AWA report that recommended plan development. This 5 category measure was collapsed to 3 categories: (1) Sedentary, (2) Light, and (3) Medium, Heavy, or Very Heavy. This measure was not recorded by L&I until April of 2009, so is available for only a subset of injured workers.

Occupational disease. This indicator was set if L&I claims data indicated "Maybe" or "Yes" for the presence of an occupational disease.

Prior treatment for same or similar injury. Obtained from L&I claims data (from the accident report submitted to L&I by the health care provider).

Coexisting conditions that might delay recovery. Obtained from L&I claims data (from the accident report submitted to L&I by the health care provider).

Rural residence county. Residence county was obtained from L&I claims data. The indicator for rural residence county was set using 2009 Washington State Office of Financial Management guidelines.⁵ A rural county was defined as having a population density of less than 100 persons per square mile or being smaller than 225 square miles. Using this definition, all counties but the following were rural: Clark, King, Kitsap, Pierce, Thurston, Snohomish, and Spokane.

Distressed residence county. Residence county was obtained from L&I claims data. The indicator for distressed residence county was set using the 2010 Distressed Areas List published by the Labor Market and Economic Analysis Branch of the Washington State Employment Security Department.⁶ A distressed county was defined as having an average unemployment rate of 7.6% or more for January 2007 through December 2009, based on being $\geq 120\%$ of the 6.3% statewide average unemployment rate for the same three-year period. There were 13 distressed counties: Clark, Columbia, Cowlitz, Ferry, Grays Harbor, Klickitat, Lewis, Mason, Pacific, Pend Oreille, Skamania, Stevens, and Wahkiakum.

Large employer. Constructed from L&I payroll data and Employment Security Department (ESD) wage records. This binary indicator was set to large employer if the employer where the worker was injured reported 50 or more full time equivalents (FTE) either to L&I or to ESD during the quarter the worker was injured. Hours were aggregated at the business level using the Unified Business Identifier (UBI).

Economic risk. Survey A included three questions related to economic problems (see Appendix B, questions A15, A16, and A17). For ease of analysis, we constructed a single ordinal measure from those three questions as follows:

- Low: Infrequent worry about bills, no collection agency contact, housing not at risk
- Moderate: Often worries about bills OR collection agency contact OR housing at risk
- High: Often worries about bills AND either collection agency contact or housing at risk

The following four characteristics were unavailable for almost all self-insured claims and therefore were used only in comparisons among State Fund claims: (1) preferred language, (2) occupational disease, (3) prior treatment for same or similar injury, and (4) coexisting conditions that might delay recovery. In addition, although employer size was available for self-insured claims, all self-insured employers were large employers (≥ 50 FTE).

⁵ Available at: <http://www.ofm.wa.gov/pop/popden/rural.asp> (accessed 6/15/10).

⁶ Available at: <http://www.workforceexplorer.com/article.asp?articleId=10268&PAGEID=&SUBID=> (accessed 6/15/10).

Employment Outcomes

All measures of pre-injury and return to work wages that were used in analyses of employment outcomes were based on earnings reported to the Employment Security Department (ESD). The measures themselves are described in the relevant Results section. All wages were standardized to January 2008 using the Consumer Price Index.

Workers with an invalid Social Security number were excluded from these analyses (this excluded 0.6% of the available sample). Workers who were injured prior to the first quarter of 1999 were also excluded, both because the ESD data was less readily available and because the comparison of pre-injury and return to work wages over such a long period of time was thought questionable, even in standardized dollars (this excluded 2.3% of the available sample). Workers with zero pre-injury ESD wages were excluded from only those analyses involving comparison of pre-injury and return to work wages (this excluded 6.0% of the available sample). Although ESD did not capture any wages for these workers, they had in fact been working by definition, and therefore pre-injury ESD wages would not be a good method to measure change in earnings.

ESD wage data includes those workers covered by unemployment insurance and exceeds 86% of total employment in Washington.⁷ Non-covered employment includes self-employment and a variety of narrowly defined exceptions. ESD wage data would also not capture wages that employers fail to report. Therefore, pre-injury and return to work wages may be underestimated for some workers.

Data Analysis

We used a combination of descriptive, bivariate and multivariate statistical analyses to address the objectives. The tests used for particular analyses are identified in each results section. Survey analyses included post-stratification weighting as described below. All statistical tests were two-tailed, with statistical significance defined as $p \leq .05$. All analyses were conducted using Stata/SE 11.2 for Windows (StataCorp LP, College Station, TX).

⁷ Details about covered and non-covered employment are available in the Washington State Quarterly Census of Employment and Wages (QCEW) reports, available at <http://www.workforceexplorer.com/?PAGEID=67&SUBID=159>

Survey Methods

Two distinct surveys were conducted for this evaluation (see Exhibit 2.4 for a brief description of both). Interviews for Survey A were completed in 2009, and pertinent results are presented in this report. Survey B was completed in August 2011. The methods and results of Survey B will be presented in next year's report.

Exhibit 2.4 Description of Surveys A and B

Survey A (baseline):

- 361 workers determined eligible and referred for plan development
- Interviewed prior to Option 1/Option 2 selection
- Interview dates: 8/27/09-12/31/09 (completed)
- Focus: Baseline differences between those who chose Option 1 versus Option 2

Survey B (follow-up):

- 360 workers with plans approved after 1/1/08
- Interviewed 3-6 months after claim closure
- Interview dates: 8/11/09-8/17/11 (completed)
- Focus: Use of acquired skills, employment outcomes, and satisfaction

The primary purpose of Survey A was to provide information about baseline differences between workers who choose Option 1 versus Option 2. The sections on option choice and on workers' opinions in the Results chapter of this report draw from Survey A. Appendix A presents Survey A response frequencies and descriptive information about the population of workers determined eligible for plan development under the pilot program.

Survey Development

The questions used in the surveys conducted for this evaluation were developed in collaboration with L&I's vocational experts and stakeholders, Gilmore Research Group, and by consulting the relevant research literature. Where possible, questions were modeled on questions from previously conducted surveys, but many questions were adapted or newly developed to meet the particular needs of this evaluation. Face validity was ascertained through consultation with L&I's vocational experts and stakeholders. The survey questions were reviewed and refined for clarity and comprehensibility by both Gilmore Research Group staff and L&I staff that work closely with injured workers. The questions for Survey A are listed in Appendix B. Sources used in survey question development are listed in Appendix C.

Survey Sampling and Administration

Workers became eligible for Survey A when they were determined eligible for development of a vocational plan. We used a consecutive sampling approach. We attempted to interview all workers with plan development referrals occurring between July 20, 2009 and December 4, 2009 (the end date was determined when the target number of interviews was reached). Workers meeting any of the following criteria were not eligible for this survey:

- Under age 18 at time of survey
- Residence address outside Washington State
- L&I employees
- Individuals whose claims indicated that employment was through a prison program
- Unable to complete telephone interview in English or Spanish

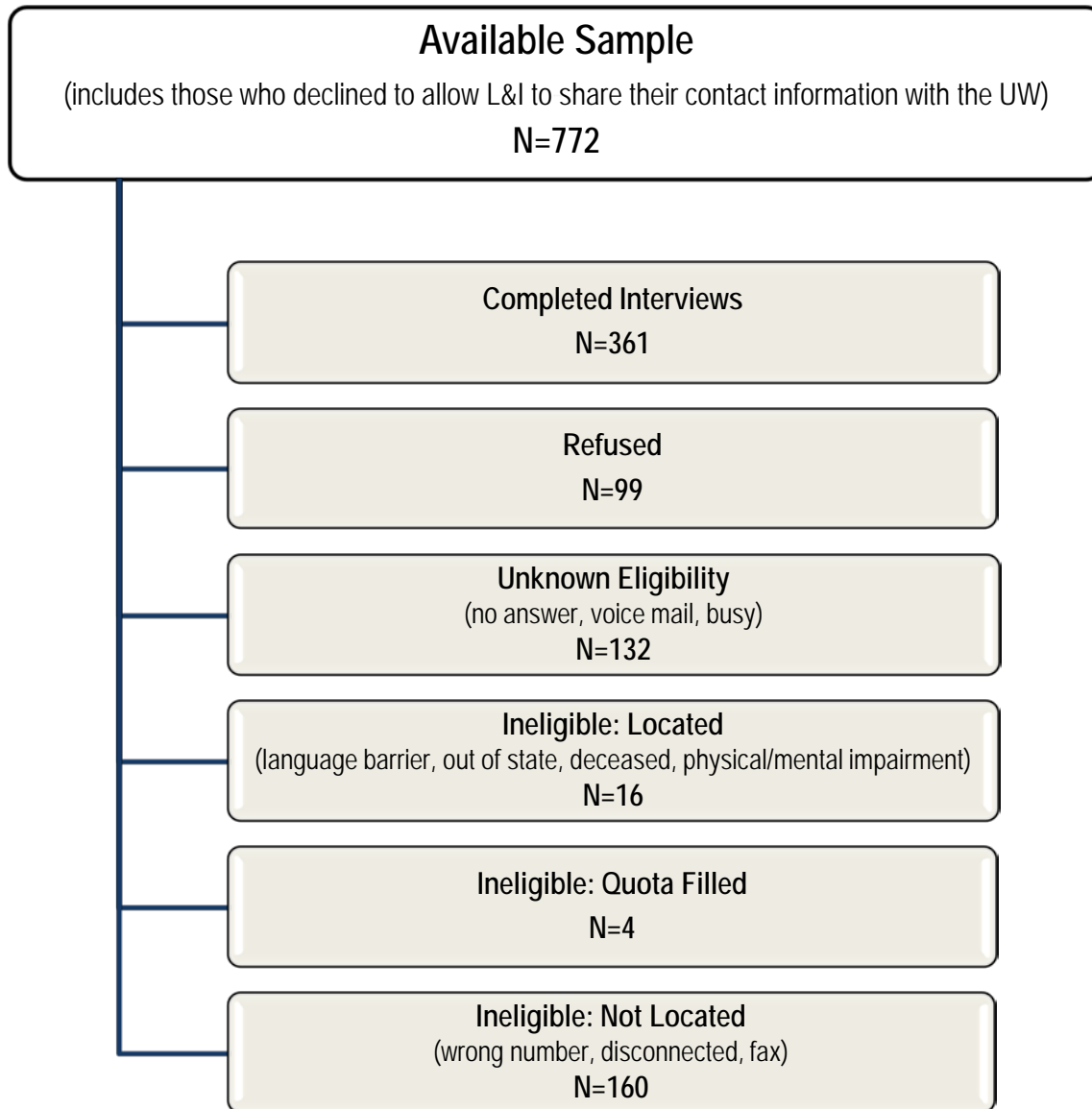
L&I provided us with contact information and other necessary data elements for all newly eligible injured workers, and for their attorneys when applicable/known. As required by the Washington State IRB (the human subjects protection committee), L&I notified potential survey participants by mail of their intent to release contact information to the University of Washington (UW) for purposes of the survey and provided an opt-out mechanism (in English and Spanish). After such notification and a 10-day waiting period, L&I released survey samples to the UW on a weekly basis. We then screened the sample to exclude workers who had already been interviewed and forwarded contact information to Gilmore Research Group, our subcontractor for the telephone interviews.

Computer Assisted Telephone Interviews (CATI) of approximately 9-10 minutes in length were conducted by Gilmore Research Group. In order to minimize non-response, workers were mailed an advance letter, offered the ability to schedule the phone interview at a convenient time, and compensated for their time with a \$15 gift card. Gilmore Research Group made ten attempts to call each individual, spread out over a number of weeks, and mailed reminder letters as needed. Interviews took place as soon as feasible after claimants were determined eligible for plan development referral (mean=34 days, range=18 to 61 days), between August 27, 2009 and December 31, 2009.

Response Rates and Post-Stratification

L&I identified 772 workers eligible for this survey (including those who opted out of sharing their contact information with us). Gilmore Research Group completed 361 interviews (the original goal was 360). 89% of those responding were State Fund (N=321), and 11% were self-insured (N=40). 4% of interviews were conducted in Spanish (N=15). A flowchart showing response and non-response categories for this survey sample is presented in Exhibit 2.5.

Exhibit 2.5 Survey A response flowchart



The overall adjusted response rate was 61.6%. For workers with State Fund claims, the adjusted response rate was 63.6%, and it was 49.0% for those with self-insured claims (see Exhibit 2.6 for all standard response and refusal rate calculations). This response rate is on the high end of expectations for a workers' compensation-related survey.⁸ Exhibit 2.7 provides the formulas we used to calculate response and refusal rates following recommendations published by the American Association for Public Opinion Research (AAPOR).⁹

Exhibit 2.6 Survey A response and refusal rates

Rate	Full Sample	State Fund	Self-Insured
Response rate	61.6%	63.6%	49.0%
Cooperation rate	78.5%	80.4%	65.6%
Refusal rate	16.9%	15.5%	25.7%
Contact rate	78.4%	79.0%	74.7%

Exhibit 2.7 Formulas used to calculate response rates in Exhibit 2.6

Response rate = $I / (I + R + e(U))$
 Cooperation rate = $I / (I + R)$
 Refusal rate = $R / (I + R + e(U))$
 Contact rate = $(I + R) / (I + R + e(U))$
 $e = I + R / (I + R + ineligible)$ [e was .96 overall; .96 for State Fund; .94 for self-insured]

Key to formula abbreviations:
 I Completed interview
 R Refused
 U Unknown eligibility/not contacted (e.g., phone always busy, no answer, voice mail)
 ineligible Located/contacted, but ineligible
 e Estimated proportion of U that were eligible

⁸ Kominski G, Pourat N, Roby D, Cameron M. *Access to Medical Treatment in the California Workers' Compensation System, 2006*. Los Angeles, CA: UCLA Center for Health Policy Research; 2006, page 31. Available at: <http://www.dir.ca.gov/dwc/AccessMedTreatmentReport2006/AccessToMedicalTreatmentInCAWC2006.pdf> (accessed 8/12/10).

⁹ The American Association for Public Opinion Research. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*. 5th ed. Lenexa, KS: AAPOR; 2008. Available at: http://www.aapor.org/AM/Template.cfm?Section=Standard_Definitions&Template=/CM/ContentDisplay.cfm&ContentID=1273 (accessed 8/12/10).

There were no large or significant differences between the respondents and the overall sample based on age, gender, attorney involvement, marital status, having at least one dependent, rural or distressed county of residence, adjusted pre-injury wages, large employer, occupational disease, prior treatment for a similar injury, or co-existing condition that could delay recovery (the last four were applicable to and tested only for the State Fund subset).

Respondents were somewhat more likely to have State Fund claims than was the case for the overall sample (89%, vs. 85% for the overall sample, $p=.03$). Respondents were less likely to have been determined eligible for plan development more than once (20%, compared with 25% for the overall sample, $p=.04$). These two factors were associated with at least some survey responses (for example, satisfaction and optimism about the impending plan's effectiveness). To improve generalizability and reduce non-response bias, post-stratification weights were calculated based on the distribution of these two factors in the full available sample. These weights were used when calculating the response frequencies presented in this report so that responses could be considered to reflect the opinions of all workers¹⁰ in the vocational rehabilitation system who were determined eligible for plan development during the fall of 2009, specifically the 20 weeks from July 20, 2009 through December 4, 2009.

¹⁰ With the exception of workers who were ineligible for the survey: under age 18, residence address outside Washington State, L&I employees, employment through a prison program, or unable to complete a telephone interview in English or Spanish.

CHAPTER 3. RESULTS

To organize our presentation of results, we will start by focusing on several potential areas of change under the pilot program:

- Characteristics of vocational plans
 - o Training strategy
 - o Labor market demand
 - o Goal occupations
- Option 2
- Measures related to accountability and efficiency
 - o Repeat referrals
 - o Plans submitted to L&I
 - o Plans approved by default
 - o Time from plan development referral to retraining
 - o Completed retraining plans
 - o Time from plan completion to claim closure
- L&I Vocational Service Specialists at WorkSource

For each of these general areas, we will discuss the following issues:

- Describe what has occurred under the pilot program, for State Fund and self-insured claims separately
- Where possible, compare the pilot program to a pre-pilot baseline period to describe any changes
- When relevant, describe differences in worker characteristics for different retraining pathways

Then we will describe what we've learned about workers' opinions regarding the effectiveness of the workers' compensation system and their satisfaction with the vocational rehabilitation system. We will conclude this chapter with a summary of findings.

Characteristics of Vocational Plans

Training Strategy

L&I records whether each plan was considered (1) formal retraining, (2) on-the-job training (OJT), or (3) assistance with a self employment plan. We classified each distinct plan¹¹ with regard to training strategy. Self-employment plans were rare, so we compared formal retraining with a category consisting of both OJT and self-employment plans.

There were 4,856 post-pilot plans approved between January 1, 2008 and December 31, 2010 (representing 4,649 claims and 4,514 workers). For the 4,289 State Fund plans, 96.3% involved formal retraining. For the 567 self-insured plans, about the same percent (95.9%) involved formal training.

We compared the 18-month baseline and pilot periods with regard to the percentage of approved State Fund plans involving formal retraining. (Assignment to baseline or pilot was based on plan approval date.) A significantly higher percentage of State Fund plans involved formal training after the pilot, 97.1% compared with 90.1% at baseline ($p < .001$). Self-insured plans did not have training strategy recorded prior to the pilot program.

We then compared worker characteristics for post-pilot plans involving formal training versus those involving other training strategies, for State Fund plans (Exhibit 3.1) and self-insured plans (Exhibit 3.2) separately. State Fund plans for those who had less education, who had an occupational disease, who had a small employer, or who were living in rural and/or distressed counties were significantly less likely to involve formal training. There were no significant differences for self-insured plans, but there were very few self-insured plans involving strategies other than formal training ($n=23$).

Key findings:

- About 96% of both State Fund and self-insured plans involved formal training under the pilot. In comparison, 90% of State Fund plans involved formal training at baseline.
- State Fund plans were less likely to involve formal training for those who:
 - Had less education
 - Had an occupational disease
 - Resided in a rural or distressed county
 - Had a small employer

¹¹ Distinct plans were defined as having different plan approval dates; where plans had the same approval date, the training strategy for the first instance was used. There could be multiple plans per claim and multiple claims per worker.

Exhibit 3.1 Worker characteristics by type of training for post-pilot State Fund plans

Characteristic	All plans (N=4,289)	Formal training (N=4,132)	OJT/Other (N=157)	p-value
	Mean	Mean	Mean	
Age (as of plan decision date)	45.3	45.2	46.2	NS
Adjusted monthly pre-injury wage	\$3,445	\$3,450	\$3,315	NS
	Percent	Percent	Percent	
Female	23.4	23.5	22.3	NS
Married	50.2	50.3	47.8	NS
1 or more dependents	37.0	36.9	39.5	NS
Preferred language not English	8.6	8.5	12.7	NS
Education (N=2,092)*				.03
Grade 0-11	25.7	25.3	39.4	
High school graduate	46.8	46.9	42.4	
Any post-secondary education	27.5	27.8	18.2	
Physical capacity (N=2,092)*				NS
Sedentary	19.7	19.7	16.7	
Light	54.6	54.6	54.6	
Medium/heavy/very heavy	25.6	25.6	28.8	
Occupational disease	14.2	13.9	19.8	.04
Prior treatment for same or similar injury	21.1	21.3	16.8	NS
Coexisting conditions that might delay recovery	9.2	9.2	7.0	NS
Rural residence county	32.3	31.6	49.7	<.001
Distressed residence county	14.2	13.9	21.1	.02
Large employer (≥50 FTE)	39.6	39.9	31.9	.04

*L&I did not record this measure until April of 2009.

Exhibit 3.2 Worker characteristics by type of training for post-pilot self-insured plans

Characteristic	All plans (N=567)	Formal training (N=544)	OJT/Other (N=23)	p-value
	Mean	Mean	Mean	
Age (as of plan decision date)	49.7	49.7	46.9	NS
Adjusted monthly pre-injury wage	\$3,704	\$3,702	\$3,742	NS
	Percent	Percent	Percent	
Female	45.3	45.2	47.8	NS
Married	52.1	52.0	54.6	NS
1 or more dependents	21.5	21.3	26.1	NS
Education (N=254)*				N/A
Grade 0-11	15.4	**	**	
High school graduate	41.7	**	**	
Any post-secondary education	42.9	**	**	
Physical capacity (N=254)*				N/A
Sedentary	33.9	**	**	
Light	56.3	**	**	
Medium/heavy/very heavy	9.8	**	**	
Rural residence county	27.8	27.7	28.6	NS
Distressed residence county	15.7	15.8	14.3	NS

*L&I did not record this measure until April of 2009.

**Frequencies too small for comparison.

Labor Market Demand

ESSB 5920 stated that the pilot program was intended to allow opportunities for participation in meaningful retraining in high demand occupations. The Employment Security Department hosts a list of occupations and their associated demand rating. Local Workforce Development Councils are responsible for the development and updating of the demand list. Occupations for which there are sufficient data are grouped into the following categories based on local labor market conditions: (1) demand, (2) balanced, or (3) not in demand. For each particular occupation, the demand rating can vary by geographic location and over time.

Labor market demand is not the only important or necessary criterion for vocational rehabilitation counselors to consider when identifying goal occupations; however, under the pilot, demand was to be explicitly considered. Beginning in April of 2009, L&I began to record the demand rating of the goal occupation for each approved plan (as well as recording demand for some already open plans). In this section we describe the extent to which plans approved under the pilot program had high demand goal occupations. Neither demand ratings nor O*NET occupational codes were recorded by L&I prior to the pilot program. Thus we were unable to assess change in the percentage of approved plans with high demand goal occupations from the baseline to the pilot period. However, we present descriptive information here about post-pilot practices.

We classified each distinct plan¹² with regard to demand status. We then compared plans with high demand goal occupations to those with any other designation. There were 4,043 post-pilot plans approved between January 1, 2008 and December

Key findings:

- 51% of State Fund plans had high demand goal occupations under the pilot, compared with 76% of self-insured plans.
- The percentage of plans with high demand goal occupations is gradually rising over time (both State Fund and self-insured).
- State Fund plans were more likely to have a high demand goal occupation if workers:
 - Were older
 - Had lower pre-injury wages
 - Were female
 - Had no dependents
 - Had more education
 - Had less physical capacity
 - Had an occupational disease
 - Resided in a rural or distressed county
 - Had a large employer
- Self-insured plans were more likely to have a high demand goal occupation if workers:
 - Had lower pre-injury wages
 - Were female
 - Had less physical capacity
 - Resided in a distressed county

¹² Distinct plans were defined as having different plan approval dates; where plans had the same approval date, the first instance with a non-missing demand classification was used. There could be multiple plans per claim and multiple claims per worker. Note that unknown demand is not the same as missing information. Demand rating information was missing for plans approved and closed prior to the system being programmed to record this field. A rating of unknown was entered in the demand field when a demand classification was unavailable for a particular goal occupation. Plans with an entry of unknown were considered “not high demand” for the purpose of these comparisons.

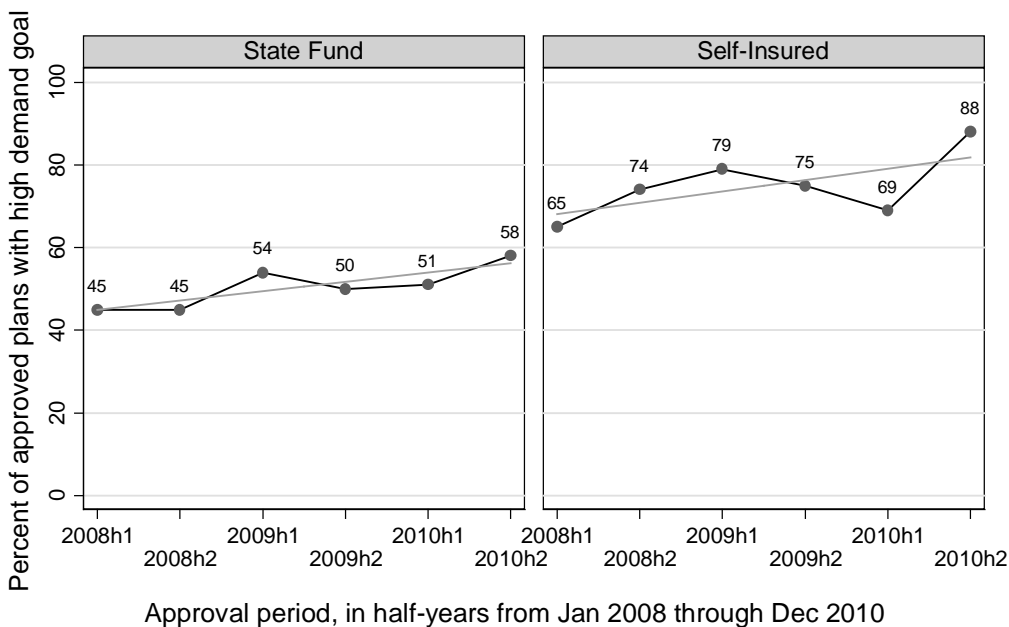
31, 2010 for which demand status was available (representing 3,919 claims and 3,802 workers). Of the 3,560 State Fund plans, 51.1% had high demand goal occupations. A significantly higher percentage, 76.2%, of the 483 self-insured plans had high demand goal occupations ($p < .001$). Exhibit 3.3 provides more detail for each demand category. We did find that having a large employer and residing in a rural or distressed county were each significantly associated with whether the goal occupation was high demand or not. However, even after controlling for those three factors, the odds of a self-insured plan having a high demand goal occupation were more than twice as high as for a State Fund plan (odds ratio=2.1, $p < .001$).

Exhibit 3.3 Demand ratings for post-pilot State Fund and self-insured plans

Demand Ratings	State Fund	Self-insured
	(N=3,560)	(N=483)
	Percent	Percent
Demand	51.1	76.2
Balanced	20.1	11.0
Not in demand	20.5	12.2
Unknown	8.3	0.6

The percentage of plans with high demand goal occupations is gradually rising over time (for both State Fund and self-insured; see Exhibit 3.4).

Exhibit 3.4 Percent of plans over time with high demand goal occupations, for post-pilot State Fund and self-insured plans



Next we compared worker characteristics for post-pilot plans involving high demand goal occupations (versus balanced, not in demand, or unknown), for State Fund plans (Exhibit 3.5) and self-insured plans (Exhibit 3.6) separately.

State Fund plans were significantly more likely to have a high demand goal occupation if workers:

- Were older (though the difference was small)
- Had lower pre-injury wages
- Were female
- Had no dependents
- Had more education
- Had less physical capacity
- Had an occupational disease
- Resided in a rural or distressed county
- Had a large employer

Self-insured plans were significantly more likely to have a high demand goal occupation if workers:

- Had lower pre-injury wages
- Were female
- Had less physical capacity
- Resided in a distressed county.

Exhibit 3.5 Worker characteristics by demand rating for post-pilot State Fund plans

Characteristic	All plans (N=3,560)	Not high demand occupation (N=1,742)	High demand occupation (N=1,818)	p-value
	Mean	Mean	Mean	
Age (as of plan decision date)	45.1	44.6	45.6	.004
Adjusted monthly pre-injury wage	\$3,482	\$3,722	\$3,251	<.001
	Percent	Percent	Percent	
Female	24.1	13.3	34.4	<.001
Married	50.7	50.3	51.2	NS
1 or more dependents	37.5	40.1	35.0	.002
Preferred language not English	8.5	9.1	7.8	NS
Education (N=2,046)*				.001
Grade 0-11	26.1	29.4	23.3	
High school graduate	46.6	46.7	46.6	
Any post-secondary education	27.3	23.9	30.1	
Physical capacity (N=2,046)*				<.001
Sedentary	19.4	15.5	22.7	
Light	54.6	55.9	53.6	
Medium/heavy/very heavy	26.0	28.7	23.7	
Occupational disease	14.3	12.8	15.7	.01
Prior treatment for same or similar injury	21.8	22.7	20.9	NS
Coexisting conditions that might delay recovery	8.9	8.8	9.0	NS
Rural residence county	31.9	28.1	35.3	<.001
Distressed residence county	14.3	11.2	17.0	<.001
Large employer (≥50 FTE)	40.3	34.2	46.2	<.001

*L&I did not record this measure until April of 2009.

Exhibit 3.6 Worker characteristics by demand rating for post-pilot self-insured plans

Characteristic	All plans (N=483)	Not high demand occupation (N=115)	High demand occupation (N=368)	p-value
	Mean	Mean	Mean	
Age (as of plan decision date)	49.4	47.9	49.9	NS
Adjusted monthly pre-injury wage	\$3,598	\$4,069	\$3,441	<.001
	Percent	Percent	Percent	
Female	45.6	26.1	51.6	<.001
Married	50.9	46.4	52.2	NS
1 or more dependents	21.1	20.0	21.5	NS
Education (N=254)*				NS
Grade 0-11	15.4	20.0	14.1	
High school graduate	41.7	40.0	42.2	
Any post-secondary education	42.9	40.0	43.7	
Physical capacity (N=254)*				.04
Sedentary	33.9	21.8	37.2	
Light	56.3	61.8	54.8	
Medium/heavy/very heavy	9.8	16.4	8.0	
Rural residence county	27.0	22.2	28.5	NS
Distressed residence county	15.3	9.3	17.2	.046

*L&I did not record this measure until April of 2009.

Goal Occupations

In this section we provide information about the goal occupations for State Fund and self-insured plans approved under the pilot program. O*NET is a publicly available database that contains standardized occupational titles and descriptions. Beginning in April of 2009, L&I began to record O*NET occupational codes for each approved plan (as well as recording O*NET occupational codes for some already open plans). O*NET occupational codes were not assigned to plans by L&I prior to the pilot program, therefore we present descriptive information here only about post-pilot practices.

We classified each distinct plan¹³ with regard to goal occupation. There were 3,543 State Fund and 478 self-insured post-pilot plans approved between January 1, 2008 and December 31, 2010 for which an O*NET code was available (representing 3,899 claims and 3,782 workers).

Key findings:

- The 46 most frequent goal occupations accounted for 80% of vocational plans.
- Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand.

The 46 most frequent goal occupations accounted for 80% of vocational plans. For each of these 46 O*NET codes, Exhibit 3.7 lists the occupational title, the number of plans having that particular occupational goal, and a summary of the demand rating for that occupation (percent demand). Percent demand was constructed by calculating the proportion of plans having the same O*NET code that were rated as high demand, and multiplying by 100. The percent demand for each occupation was rarely 100% or 0% (as might be expected) because the demand rating varies by geographic location and over time, depending on local labor markets.

Given the new focus on job demand ratings under the pilot, we assessed the frequency of particular occupational goals in the context of how often they were rated as high demand. For example, 571 plans had the occupational goal of “Office Clerks, General” (by far the most prevalent goal). This goal occupation was rated high demand 83% of the time. In contrast, the 3rd most prevalent occupational goal was “Electrical and Electronic Equipment Assemblers.” This occupation was the goal of 172 plans, yet it was rated high demand only 19% of the time. This particular goal occupation has moved up from 7th to 3rd place in relative frequency over the past year. We understand that there are many factors to consider when selecting an occupational goal for each worker in retraining, and that capacity, abilities, preferences, and training opportunities must be weighed on a case-by-case basis. However, it may be useful for L&I to consider whether the relatively high frequency of several occupational goals that were rarely rated high demand are a possible indication of misaligned or inadequate retraining opportunities or perhaps some other systematic problem in occupational goal identification.

¹³ Distinct plans were defined as having different plan approval dates; where plans had the same approval date, the first instance with a non-missing O*NET code was used. There could be multiple plans per claim and multiple claims per worker.

Exhibit 3.7 Occupation and percent demand for post-pilot plans

O*NET code	O*NET title	# plans	% demand
43906100	Office Clerks, General	571	83%
15104100	Computer Support Specialists	197	70%
51202200	Electrical and Electronic Equipment Assemblers	172	19%
43303100	Bookkeeping, Accounting, and Auditing Clerks	146	73%
21109300	Social and Human Service Assistants	146	91%
43417100	Receptionists and Information Clerks	137	77%
31909200	Medical Assistants	136	96%
43601300	Medical Secretaries	119	82%
11902100	Construction Managers	102	11%
17301102	Civil Drafters	90	41%
43601100	Executive Secretaries and Administrative Assistants	90	44%
43405100	Customer Service Representatives	89	89%
17301101	Architectural Drafters	77	43%
43302102	Billing, Cost, and Rate Clerks	73	88%
17301300	Mechanical Drafters	71	18%
23201100	Paralegals and Legal Assistants	68	46%
29207100	Medical Records and Health Information Technicians	52	90%
17301201	Electronic Drafters	51	18%
41201100	Cashiers	45	89%
27102400	Graphic Designers	45	31%
49305300	Outdoor Power Equipment and Other Small Engine Mechanics	41	0%
49906200	Medical Equipment Repairers	41	32%
53303200	Truck Drivers, Heavy and Tractor-Trailer	41	61%
47401100	Construction and Building Inspectors	41	2%
51412106	Welders, Cutters, and Welder Fitters	40	50%
43503200	Dispatchers, Except Police, Fire, and Ambulance	37	11%
51401100	Computer-Controlled Machine Tool Operators, Metal and Plastic	37	5%
29205200	Pharmacy Technicians	36	58%
13105100	Cost Estimators	35	11%
41101100	First-Line Supervisors/Managers of Retail Sales Workers	34	38%
25904100	Teacher Assistants	32	100%
29201200	Medical and Clinical Laboratory Technicians	32	91%
17302200	Civil Engineering Technicians	31	26%
17302301	Electronics Engineering Technicians	29	7%
15107100	Network and Computer Systems Administrators	23	57%
29901100	Occupational Health and Safety Specialists	22	27%
43408100	Hotel, Motel, and Resort Desk Clerks	21	38%
17301100	Architectural and Civil Drafters	21	38%
21101100	Substance Abuse and Behavioral Disorder Counselors	19	37%
51908100	Dental Laboratory Technicians	19	5%
51209200	Team Assemblers	18	17%
15109904	Web Developers	18	56%
43101100	Supervisors/Managers of Office and Administrative Support Workers	18	56%
47207300	Operating Engineers and Other Construction Equipment Operators	17	12%
17301900	Drafters, All Other	17	24%
33903200	Security Guards	17	65%

Option 2

The pilot program made a new alternative available to workers, called Option 2. Option 2 provides a mechanism for workers to choose not to participate in the training plan approved by L&I. Workers have 15 days after plan approval to decide whether to participate in the approved plan or choose Option 2. When workers choose Option 2:

- The claim is closed (it may be reopened if a worker's condition worsens and need for medical treatment is documented).
- Time-loss benefits end and a vocational award in the amount of 6 months of time-loss benefits is paid (either over time or in a lump sum).
- A specified amount of vocational funds are set aside, which the worker can access for tuition/training fees and certain related expenses for up to five years (\$12,000 as of January 1, 2008, with changes indexed to Washington's community college tuition rates).
- The worker can seek training at any licensed, accredited, or L&I approved program or course. The retraining goal does not need to be the same as the one approved by L&I.

Key findings:

- Option 2 was chosen more often by workers with self-insured claims (30%) compared with State Fund (26%).
- Workers with State Fund claims were more likely to have chosen Option 2 if they:
 - o Had lower pre-injury wages
 - o Were male
 - o Had less education
 - o Had no prior treatment for the same or a similar injury
 - o Had a small employer
- Workers with self-insured claims were more likely to have chosen Option 2 if they were older or had no dependents.
- It did not appear that having been determined eligible for plan development more than once (an indication of problems with previous plans) was associated with choosing Option 2.
- Survey respondents who thought that their plan would have a negative effect on their ability to return to work were more likely to choose Option 2.
- There were a number of striking differences between those not obtaining a plan within a year and those who did have a plan approved and subsequently chose either option.
- 42% of workers with State Fund claims and 27% of workers with self-insured claims returned to work within 3 years of claim closure. Workers with self-insured claims were 37% less likely than State Fund to return to work during any quarter after claim closure.
- Those who returned to work experienced a 46% drop in average wages, and earned less than full-time minimum wage in an average quarter. Those earning more pre-injury also earned more on return to work, but had a larger percent drop in average wages. State Fund workers appeared to fare better on every wage measure.

Who Chose Option 2?

We compared the characteristics of workers choosing Option 2 with those choosing Option 1. Each worker is allowed to choose Option 2 only once. We therefore considered all plans and claims for each individual worker and classified workers as choosing Option 2 if they had ever done so by December 31, 2010.

There were 3,995 State Fund and 526 self-insured workers with post-pilot plans approved between January 1, 2008 and December 31, 2010. Option 2 was chosen more often by workers with self-insured claims compared with State Fund (30.2% compared with 25.5%, $p=.02$). This is a slight shift from last year's report, when the percentages were similar for both groups (26.1% for self-insured and 25.0% for State Fund).

Comparisons of worker characteristics¹⁴ by option choice based on administrative data are presented in Exhibit 3.8 (State Fund) and Exhibit 3.9 (self-insured). Workers with State Fund claims were significantly more likely to have chosen Option 2 if they:

- Had lower pre-injury wages
- Were male
- Had less education
- Had no prior treatment for the same or a similar injury
- Had a small employer

Notably, it did not appear that having been determined eligible for plan development more than once (an indication of problems with previous plans) was associated with choosing Option 2. This was surprising, since Option 2 has been described as a mechanism to allow workers to exit the system who previously had no viable means to do so. The fiscal note for ESSB 5920 incorporated the assumption that workers who had previously participated in incomplete retraining plans would choose Option 2 more often (about half the time), when in fact there appears to be little or no difference.

Workers with self-insured claims were significantly more likely to have chosen Option 2 if they were older (4.9 years older on average) or did not have dependents. And as for the State Fund group, it did not appear that having been determined eligible for plan development more than once (an indication of problems with previous plans) was associated with choosing Option 2.

¹⁴ In order to present information at the worker level, we defaulted to the maximum (e.g., pre-injury wages) or to any occurrence of the characteristic (e.g., occupational disease) when workers had multiple plans or claims with differing information.

Exhibit 3.8 Worker characteristics by option choice (for post-pilot State Fund plans)

Characteristic	All workers (N=3,995)	Option 1 only (N=2,977)	Ever Option 2 (N=1,018)	p-value
	Mean	Mean	Mean	
Age (as of 1/1/2008)	43.7	43.6	44.2	NS
Adjusted monthly pre-injury wage	\$3,442	\$3,516	\$3,226	<.001
	Percent	Percent	Percent	
Female	23.6	24.7	20.3	.004
Married	50.4	51.2	48.2	NS
1 or more dependents	37.5	37.3	38.0	NS
Preferred language not English	8.8	8.7	9.0	NS
Education (N=1,916)*				.009
Grade 0-11	26.5	25.2	30.4	
High school graduate	46.5	46.1	47.5	
Any post-secondary education	27.1	28.7	22.2	
Physical capacity (N=1,916)*				NS
Sedentary	19.8	20.1	18.8	
Light	54.2	52.9	58.2	
Medium/heavy/very heavy	26.0	27.0	23.0	
Occupational disease	14.4	14.9	12.9	NS
Prior treatment for same or similar injury	21.6	22.6	18.6	.008
Coexisting conditions that might delay recovery	9.0	8.8	9.7	NS
Rural residence county	32.3	32.4	32.2	NS
Distressed residence county	14.5	14.2	15.4	NS
Large employer (≥50 FTE)	39.6	40.7	36.5	.02
Determined eligible for plan development more than once	29.4	29.0	30.7	NS

*L&I did not record this measure until April of 2009.

Exhibit 3.9 Worker characteristics by option choice (for post-pilot self-insured plans)

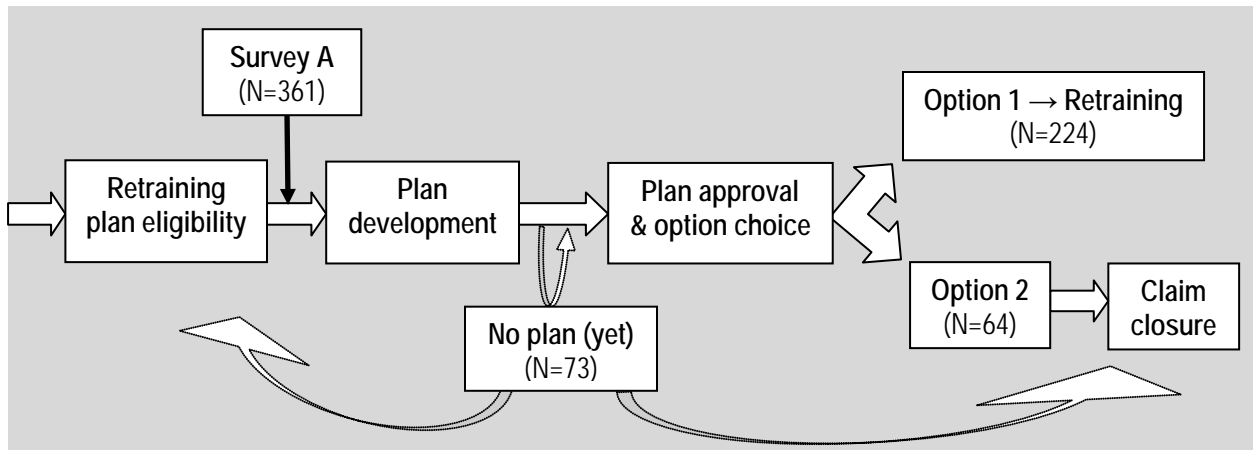
Characteristic	All workers (N=526)	Option 1 only (N=367)	Ever Option 2 (N=159)	p-value
	Mean	Mean	Mean	
Age (as of 1/1/2008)	48.4	46.9	51.8	<.001
Adjusted monthly pre-injury wage	\$3,714	\$3,629	\$3,912	NS
	Percent	Percent	Percent	
Female	44.9	46.3	41.5	NS
Married	52.5	52.4	52.9	NS
1 or more dependents	20.7	23.4	14.5	.02
Education (N=238)*				NS
Grade 0-11	15.1	13.3	19.4	
High school graduate	41.6	42.2	40.3	
Any post-secondary education	43.3	44.6	40.3	
Physical capacity (N=238)*				NS
Sedentary	33.6	32.5	36.1	
Light	55.9	55.4	56.9	
Medium/heavy/very heavy	10.5	12.1	6.9	
Rural residence county	28.0	27.4	29.4	NS
Distressed residence county	15.3	14.4	17.5	NS
Determined eligible for plan development more than once	6.1	6.5	5.0	NS

*L&I did not record this measure until April of 2009.

Who Chose Option 2? Who Didn't Have a Plan Approved? (Survey A)

We interviewed 361 workers during the fall of 2009, shortly after they were determined eligible and referred for plan development (Survey A). For those injured workers who responded to Survey A, we were able to assess whether there were differences between those who chose Option 1 and those who chose Option 2 regarding a number of additional characteristics and opinions. Survey A was conducted after determination of eligibility for plan development, but prior to plan development activities, retraining plan approval, and subsequent option choice (see Exhibit 3.10).

Exhibit 3.10 Timing of Survey A with respect to the vocational rehabilitation process



Because of the timing of this survey, we were also able to assess differences between (1) those who had a plan developed and approved and (2) those who had not by December 31, 2010 (at least a year after plan development eligibility was determined). The group who did not have a plan developed, at least not in a timely way, consisted of 73 injured workers (identified below as “No plan”). It is of interest to understand more about injured workers who either never obtain an approved plan or are delayed in the process. The “no plan” group was composed of injured workers in a variety of situations. For some, the outcome heralded the end of the worker’s participation in the vocational rehabilitation process; vocational services were determined not appropriate for 32% (for a variety of reasons), and 8% of injured workers were determined able to work or had returned to work. For others, there were avoidable or unavoidable delays and the person may eventually begin retraining: medical instability (18%), administrative problems or staffing changes or with the vocational referral or the vocational counselor (14%), or the proposed retraining plan was denied (7%). There were 22% with an unknown status or unknown reasons for the delay. Due to the small numbers in each subgroup, we report findings for the entire group of 73 for this analysis, regardless of the reason for “no plan.” Due to the small number of respondents in the self-insured category, State Fund and self-insured responses were combined for this analysis.¹⁵

Of the injured workers eligible for Survey A who subsequently had a plan approved and chose an option, there was no significant difference between Survey A respondents and the overall sample pool regarding which option was chosen. However, Survey A respondents were significantly less likely than the overall sample pool to have no plan (20.2% compared with 31.7%, $P<.001$).¹⁶

¹⁵ There were 40 respondents in the self-insured category. 16 chose Option 1, 9 chose Option 2, and 15 were in the “no plan” group.

¹⁶ Poststratification based on whether the claim was State Fund or self-insured and whether the worker had been determined eligible for plan development more than once (the only available characteristics found to significantly differ between the respondents and the overall sample) corrected for very little of this discrepancy, so unmeasured characteristics may well be contributing to the observed difference in outcome. See Chapter 2 for details of poststratification.

Nevertheless, we can use the survey responses to try to understand some of the factors that may predict no plan, keeping in mind that these patterns may differ for those who were not interviewed and that there may also be important unmeasured characteristics. All results in this section have been weighted so that they can be considered to reflect the opinions of all workers¹⁷ in the vocational rehabilitation system who were determined eligible for plan development during the fall of 2009, specifically the 20 weeks from July 20, 2009 through December 4, 2009. (See the Methods chapter for more detail on response rates and post-stratification methodology. Appendix A contains a report on responses to all questions in this survey. Appendix B contains all interview questions for Survey A.)

There were no significant differences between those choosing Option 1 and Option 2 regarding any of the characteristics we assessed (See Exhibit 3.11), with the sole exception that respondents who thought that their plan would have a negative effect on their ability to return to work were more likely to choose Option 2. (It should be noted that, relative to the analyses based solely on administrative data above, Survey A respondents comprised a smaller sample and there was less ability to detect small differences; these findings do not negate the differences reported in Exhibits 3.8 and 3.9.)

In contrast, there were a number of striking differences between those with no plan compared with those who did have a plan approved and subsequently chose an option (Exhibit 3.11). Those with no plan were more likely to:

- Have a self-insured claim
- Be older at the time of the survey (4.8 years older on average)
- Have had more time pass since their injury
- Have been determined eligible for a plan more than once prior to the survey
- Have worked for their employer longer before their injury
- Have worked in their occupation longer before their injury
- Report poor self-rated health and/or poor self-rated non-work functioning
- Think that the workers' compensation system is ineffective
- Be dissatisfied with the vocational rehabilitation system
- Think that the retraining plan would have a negative effect on their ability to return to work
- Be uncertain they would return to work within 6 months of completing the retraining plan

¹⁷ With the exception of workers who were ineligible for the survey: under age 18, address outside Washington State, L&I employees, employment through a prison program, or unable to complete a telephone interview in English or Spanish.

Exhibit 3.11 Comparison of Survey A respondents choosing Option 1, Option 2, or obtaining no plan

Characteristic	Data Source	Overall (N=361)	No Plan (N=73)	Plan (N=288)	p-value	Option 1 (N=224)	Option 2 (N=64)	p-value
Self-insured (vs. State Fund)	Admin	15.3	26.1	12.2	.008	12.9	22.8	NS
Age at survey (mean years)	Survey	46.9	50.7	45.9	<.001	45.8	47.2	NS
Mean years from injury to survey	Admin	3.2	3.9	3.0	<.001	3.1	3.0	NS
Determined eligible for a plan more than once (before survey)	Admin	24.9	34.0	22.3	.05	22.7	31.7	NS
Mean years worked for employer before injury	Survey	6.2	8.9	5.4	.009	5.5	6.1	NS
Mean years in occupation before injury	Survey	14.9	17.3	14.2	.05	14.3	14.7	NS
Poor self-rated health	Survey	28.7	42.4	24.7	.004	26.3	21.9	NS
Poor self-rated non-work functioning	Survey	33.1	54.5	27.3	<.001	29.1	22.5	NS
Thinks WC system is ineffective	Survey	31.0	49.0	26.2	<.001	25.3	30.6	NS
Dissatisfied with vocational rehabilitation system	Survey	21.9	39.1	17.2	<.001	17.9	18.4	NS
Thinks plan will have a negative effect on return to work	Survey	14.6	36.7	8.7	<.001	6.9	17.4	.04
Uncertain about return to work within 6 months of plan completion	Survey	33.9	63.9	25.8	<.001	23.9	34.8	NS

Notes: All results presented in Exhibit 3.11 have been adjusted to the population using post-stratification weights as described in Chapter 2. Estimates of means and percentages in the Plan column do not necessarily fall between those in the Option 1 and Option 2 columns (as the reader might expect) due to poststratification based on different denominators. The following characteristics had no significant association with either obtaining an approved plan or option choice and were excluded from this table: pre-injury wages, gender, marital status, dependents, occupational disease, prior treatment for same or similar injury, coexisting conditions that might delay recovery, rural or distressed residence county, large employer, interview language, whether born in the U.S., educational level, apprenticeship before injury, satisfaction with job where injured, union member at time of injury, economic risk.

Option 2 Employment Outcomes

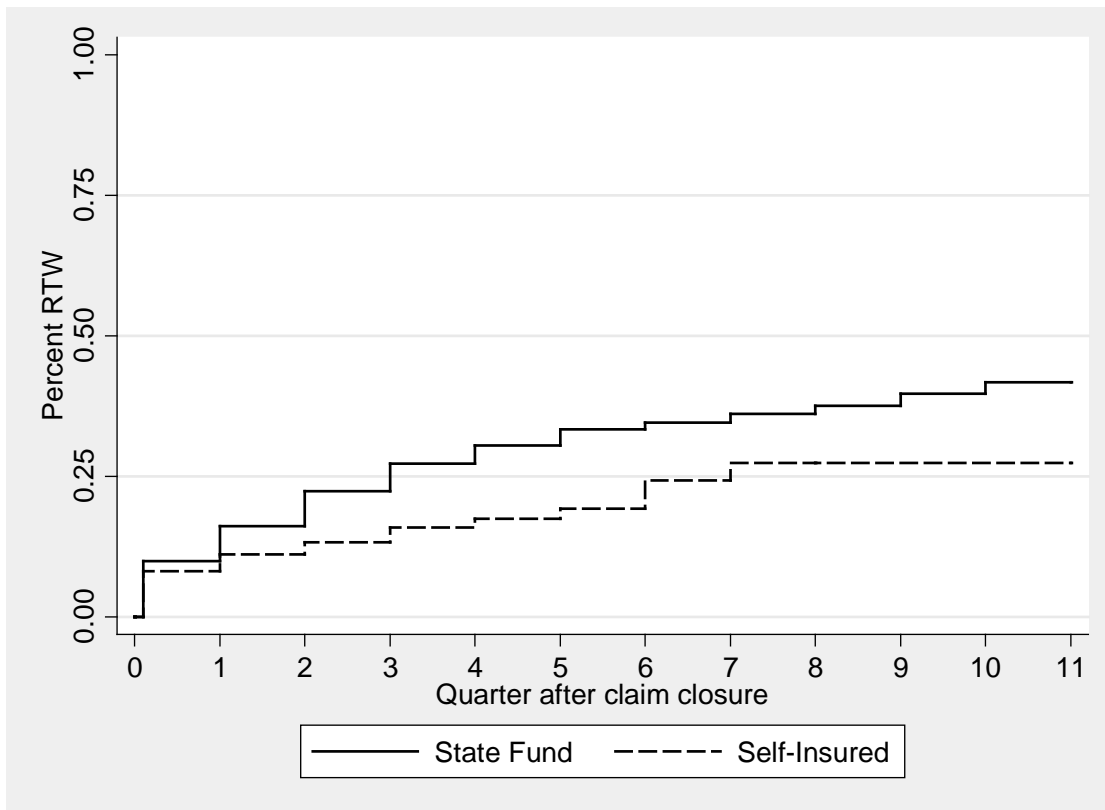
In this section, we describe employment outcomes for injured workers who chose Option 2. We have provided separate summaries for State Fund and self-insured claims, unless there were too few self-insured claims having enough follow-up time to enable comparison. All wage measures were based on earnings reported to the Employment Security Department (ESD) and adjusted to January 2008 dollars. Further detail about ESD wage data can be found in the Employment Outcomes section of Chapter 2. It is important to note that these analyses are purely descriptive. They do not control for the effects of changing job market conditions, and the severe recession occurring during this same time period would likely have accounted for significant but unknown decrements in the likelihood of: (1) finding work, and (2) earning post-retraining wages comparable to or surpassing pre-injury wages.

We used the following measures to describe employment outcomes:

1. Whether the worker ever returned to work (defined as having any observed wages in the ESD database), and the timing of return to work with respect to claim closure.
2. The percentage of all workers attaining each of 5 wage measures, by quarter after claim closure:
 - a. Any wages.
 - b. At least full-time minimum wage (prevailing minimum wage x 500 hours). In other words, if a worker earned at least \$4,035 per quarter in 2008 or \$4,275 per quarter in 2009 or 2010, they met this standard for that particular quarter.
 - c. At least 50% of the worker's pre-injury wage.
 - d. At least 75% of the worker's pre-injury wage.
 - e. At least 100% of the worker's pre-injury wage.
3. Among those who ever returned to work (RTW), the percentage attaining short-term and sustained versions of each of the above 5 wage measures.
 - a. Short-term: The percentage of workers attaining each of the 5 measures in the first quarter after the first RTW quarter; workers could be included if they had first RTW by the third quarter of 2010.
 - b. Sustained: The percentage of workers attaining each of the 5 measures in at least 3 of the 4 quarters after the first RTW quarter; workers could be included if they had first RTW by the fourth quarter of 2009 (therefore the available sample was smaller for this measure compared with the short-term measure).
4. Pre-injury compared with post-RTW mean quarterly wages (averaged over 4 quarters).
 - a. For each worker who had returned to work, the 4 quarters prior to the injury quarter were compared with the 4 quarters after the first RTW quarter.
 - b. The above comparison was repeated, stratified by pre-injury quarterly wage quartiles.

Exhibit 3.12 presents the percent and timing of return to work separately for State Fund and self-insured claims. An estimated 41.7% of workers with State Fund claims and 27.3% of workers with self-insured claims return to work by the 11th quarter after Option 2 choice and claim closure. (This does not imply that these workers continued to work or worked consistently.) Workers with self-insured claims were 36.9% less likely than those with State Fund claims to have returned to work during any quarter after claim closure (p=.02; Cox proportional hazards regression).

Exhibit 3.12 Percent returning to work by quarter since claim closure (N=1,057)



The following series of graphs (Exhibit 3.13) present the percentage of workers attaining each of the 5 wage measures, by quarter after claim closure. State Fund and self-insured claims were graphed separately. Workers who had not returned to work and/or had no wages in a particular quarter were included, in order to give a full picture of the employment status of all workers choosing Option 2. The number of workers available for the denominator of each bar is listed to the left; the number of available workers drops as more observation time is required. For example, the first bar in the first graph shows that 10% of the 934 State Fund workers that chose Option 2 and had their claim closed by the end of 2010 had any wages in the quarter that their claim closed. The second line of the same graph shows that 14% of the 852 State Fund workers with at least one quarter of observation time available between the quarter their claim closed and the end of 2010 had any wages in the first full quarter after their claim closed. We would expect the claim closure quarter (Q0) to be lower for all of these measures, since the claim could have closed at any point during the quarter and on average there would be less time available for a worker to have been employed than in any succeeding quarter. Although there was less observation time available for self-insured claims and we did not control for occupation, industry, or other potentially important factors in these comparisons, there was a clear pattern indicating that higher percentages of State Fund workers met each wage measure.

Exhibit 3.13 Percent of workers attaining each of 5 wage measures in each quarter after claim closure (whether or not RTW)

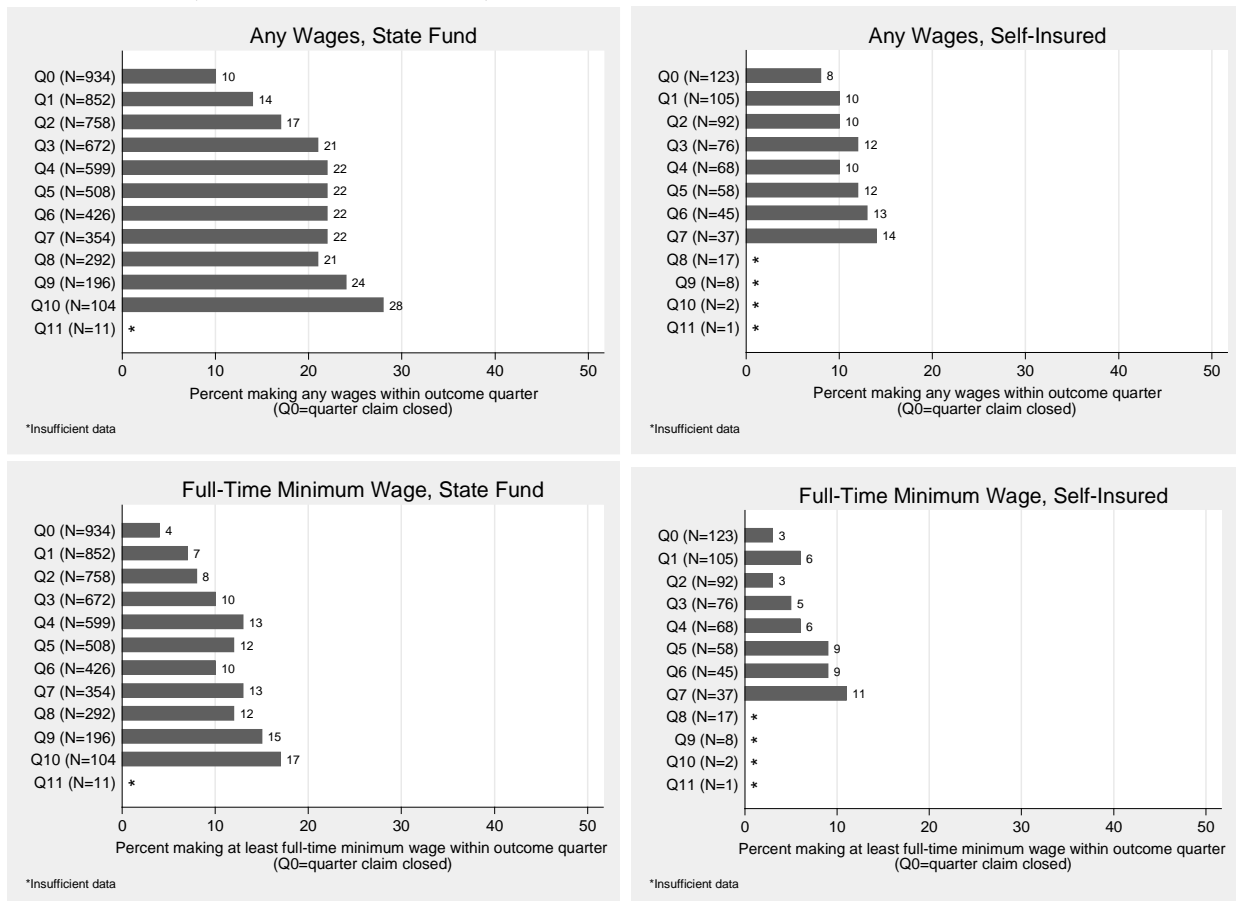


Exhibit 3.13, continued

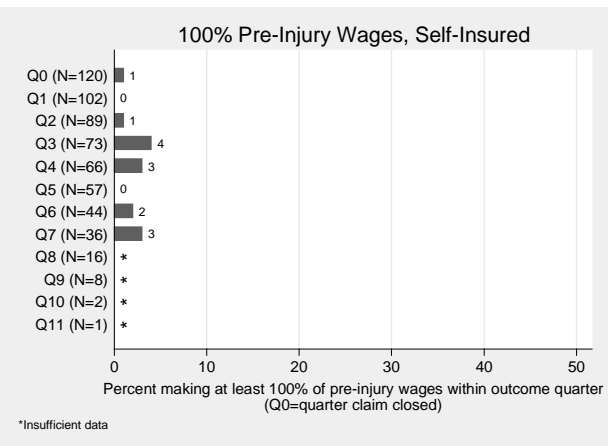
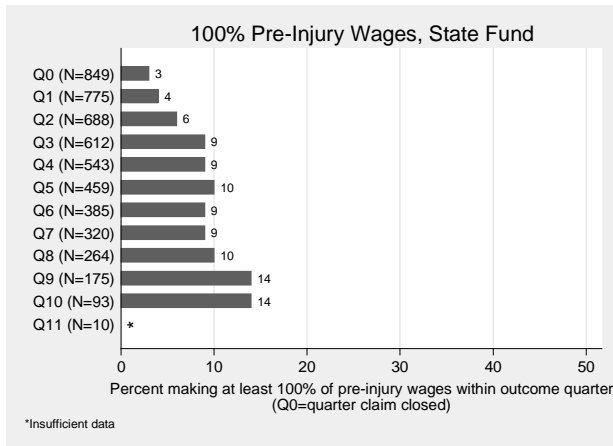
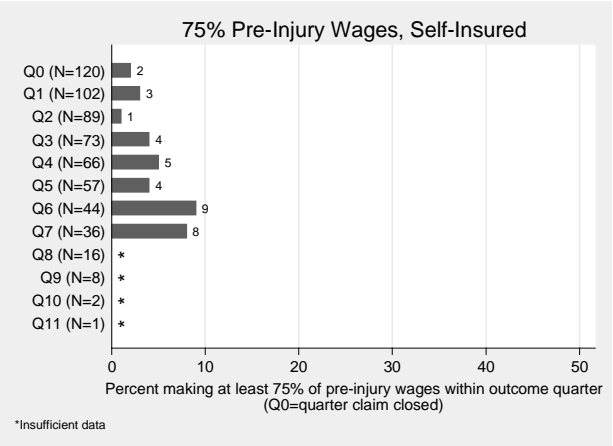
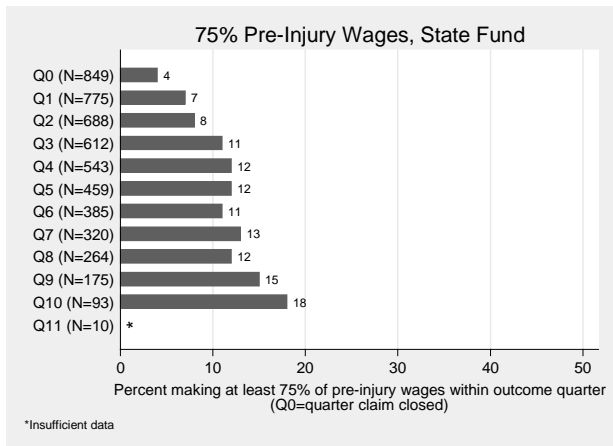
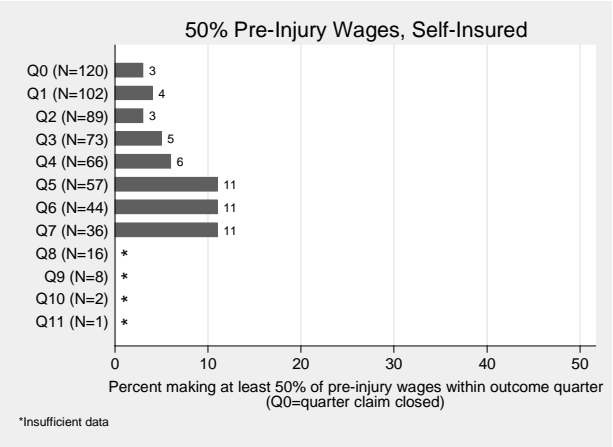
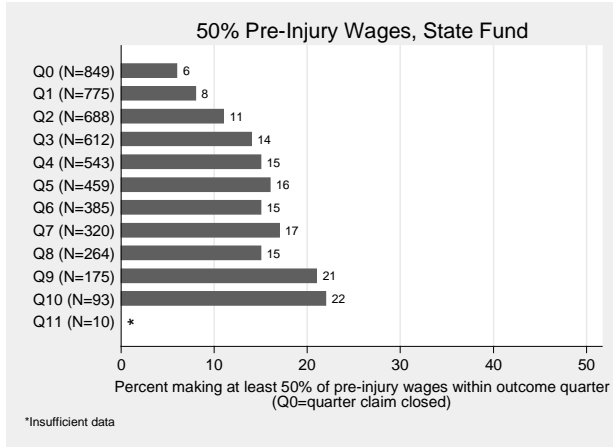
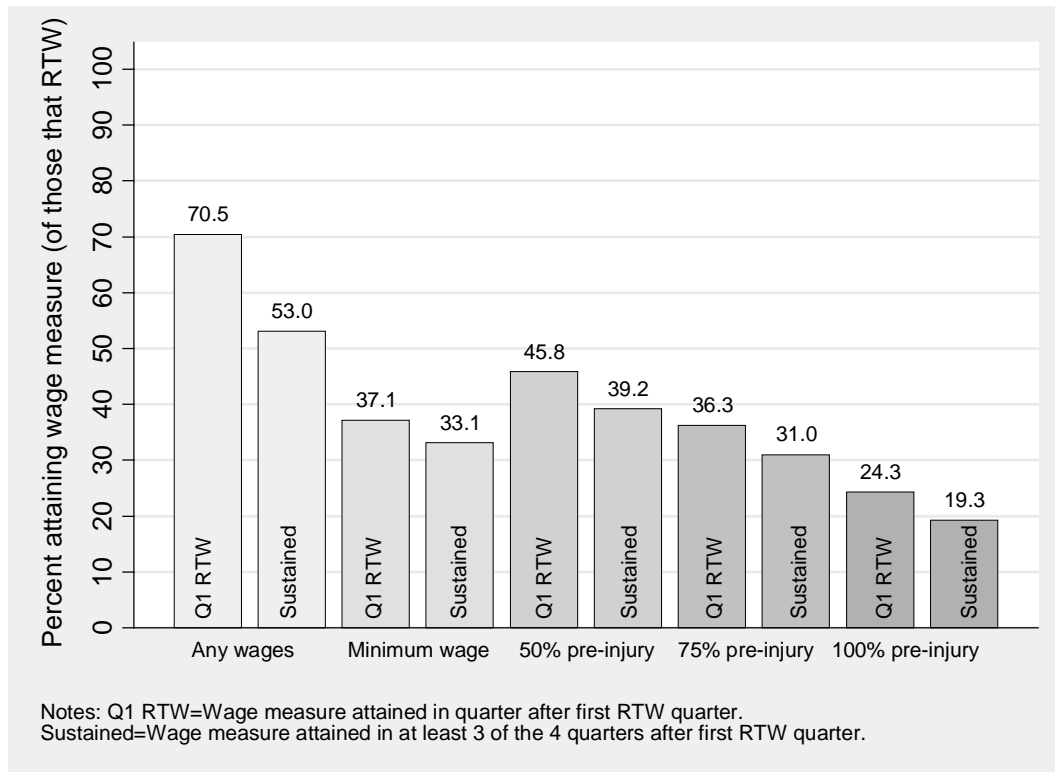


Exhibit 3.14 compares the percentage of those attaining each of the 5 wage measure in the short-term to the percentage of those attaining the sustained version of the same measure, among just those who did return to work. Each of the 5 measures has 2 bars: (1) the percentage of workers attaining each measure in the first quarter after the first RTW quarter, and (2) the percentage of workers attaining each of the 5 measures in at least 3 of the 4 quarters after the first RTW quarter.¹⁸ The largest difference between the short-term and sustained measures was observed for those with any wages; workers meeting the stricter wage measures appeared more likely to be engaged in ongoing work.

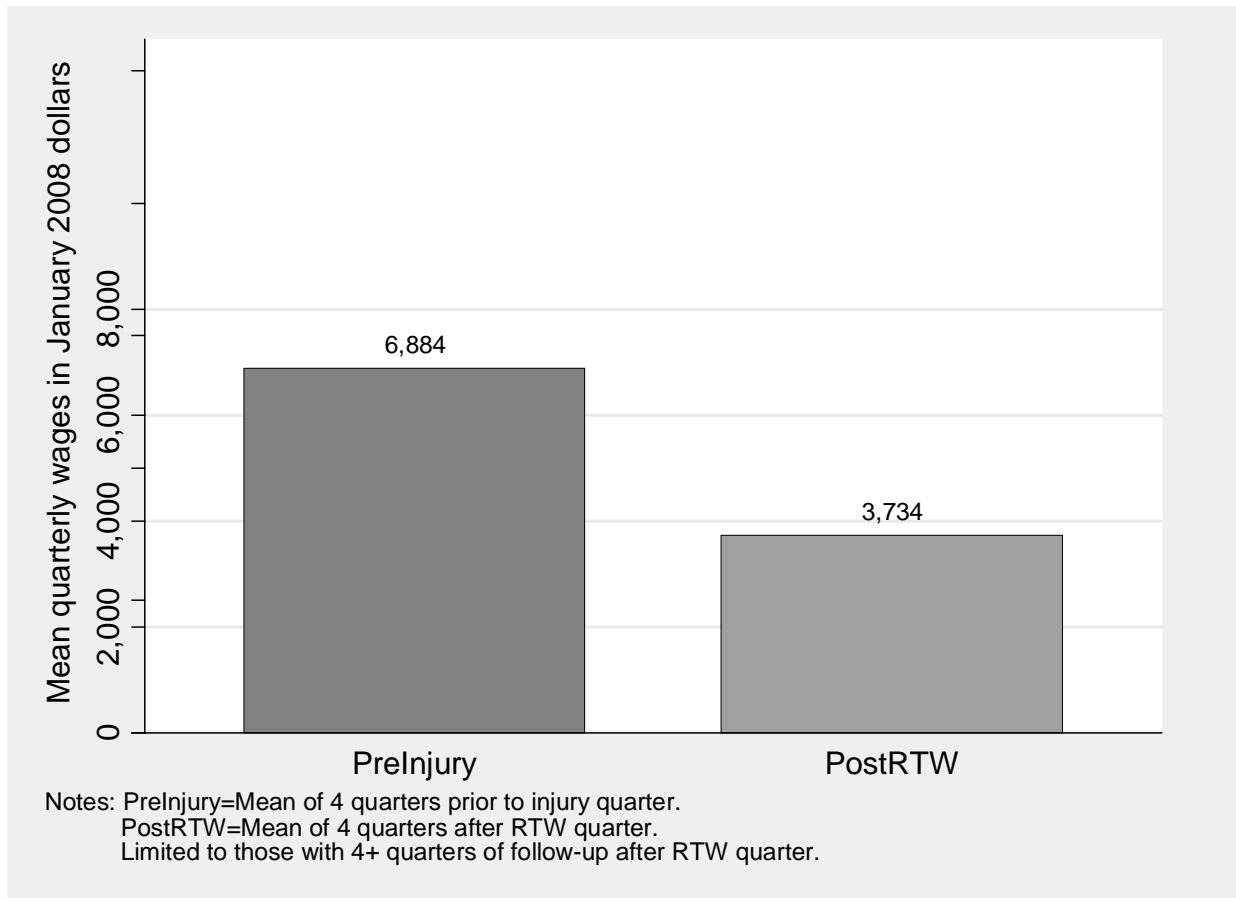
Exhibit 3.14 Percent attaining short-term and sustained versions of each of the 5 wage measures, among injured workers that ever returned to work



¹⁸ The bars rely on different denominators, due to differing requirements for length of observation time and for measurable pre-injury wages; in left to right order, the Ns are: 264, 181, 264, 181, 251, 171, 251, 171, 251, and 171.

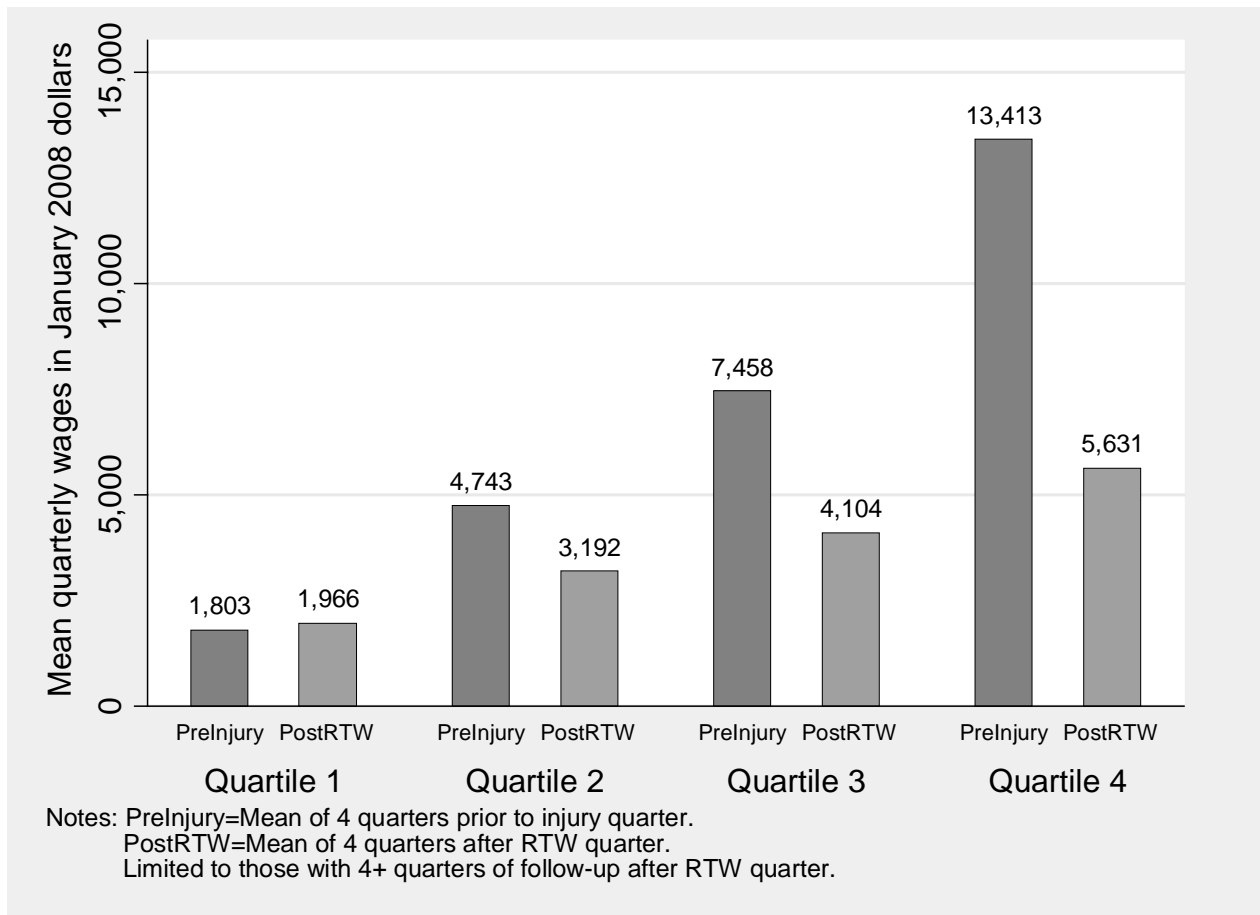
Next, we compared mean quarterly wages for the 4 quarters prior to the injury quarter with those for the 4 quarters after the first RTW quarter (see Exhibit 3.15). The 171 workers we were able to include in this comparison earned \$6,884 on average in pre-injury quarters, compared with \$3,734 on average in post-RTW quarters, both in January 2008 dollars ($p < .0001$; paired t test). This represents a 46% drop in average wages. (These figures do not account for the number of hours worked.) For reference, a worker working full-time (500 hours) at minimum wage would have earned \$4,035 per quarter in 2008 and \$4,275 per quarter in 2009 and 2010.

Exhibit 3.15 Mean quarterly wages in January 2008 dollars, comparing pre-injury wages to post-return to work wages (each averaged over 4 quarters)



We also assessed whether this difference varied based on pre-injury income level. The above comparison was repeated but broken out by pre-injury quarterly wage quartiles for the same 171 workers. As shown in Exhibit 3.16, those with higher pre-injury income tended to earn more wages when they returned to work after their injury, but they also had a larger drop in average wages. (The difference between pre-injury and return-to-work wages was statistically significant for all but Quartile 1.)

Exhibit 3.16 Mean quarterly wages in January 2008 dollars, comparing pre-injury wages to post-return to work wages, stratified by pre-injury wage quartiles



Measures Related to Accountability and Efficiency

Several changes were made under the pilot program that may have affected accountability and efficiency in the vocational rehabilitation system. These include:

- Screening of vocational referrals by specialized L&I staff
- L&I has a 15-day limit to act on a submitted plan, or the plan is deemed approved
- Vocational rehabilitation counselors have a 90-day limit for plan development

In the following sections, we present analyses regarding five measures related to accountability and efficiency that may have been affected by these changes:

- Repeat referrals
- Plans submitted to L&I
- Plans approved by default
- Time from plan development referral to retraining

Repeat Referrals

In this section, we assess the incidence of repeat vocational referrals for the same service at the claim level. Although repeat referrals are not always unwarranted, the presence of repeat referrals for the same service is a potential indication of inefficiency and other possible problems with the progress of a claim. We focus here on ability to work assessment (AWA), plan development (PD), and plan implementation (PI) referrals, since those are the activities likely to have been affected by the pilot.

To construct comparable samples for each referral type, we assigned each claim to the baseline or pilot period (or excluded it) based on the start date for the very first referral of the referral type being assessed. (Note that a claim might fall into different categories for each of the three referral types and therefore be included or excluded differently for each of the three analyses.) We then counted the number of repeat referrals for each claim that occurred within the same 18-month baseline or pilot time window (all referrals subsequent to the first referral but occurring within the allotted time window). Although this strategy limited the length of time each claim could be observed, our primary motivation was to ensure to

Key findings:

- Self-insured claims had fewer repeat plan development referrals under the pilot than did State Fund claims; there was no significant difference for plan implementation referrals.
- From baseline to pilot, the percentage of State Fund claims with repeat referrals decreased by:
 - 27% for AWA referrals
 - 25% for PD referrals
 - 31% for PI referrals

the extent possible that the samples were comparable in terms of having been exposed to either only baseline or only pilot practices. Controlling for employer size did not substantively affect these estimates or comparisons, and was not implemented in the final analyses presented here.

Exhibit 3.17 presents information about repeat PD and PI referrals for State Fund and self-insured claims under the pilot program. AWA referrals were not included in this table, as self-insured employers were not required to report AWA referrals to L&I, even after the pilot. On average, self-insured employers had a significantly lower percentage of claims with repeat PD referrals during the pilot period than did the State Fund. There was no significant difference for repeat PI referrals. These findings held up even when we controlled for observation time.¹⁹

Compared with the 2010 report, when repeat referrals under the pilot program were based on an earlier time window, the gaps between State Fund and self-insured are narrowing, mainly due to increased repeat referrals among self-insured claims.²⁰ As we speculated last year, it may be that these differences were not due solely to efficiency differences but also to the fact that the reporting of PD and PI referrals to L&I by self-insured employers was a new requirement under the pilot program. It is possible that some self-insured employers may not have been fully aware of or may not have fully implemented the new requirement early in the pilot program, which would tend to lower the number of observed repeat referrals for self-insured employers. The increase in observed repeat referrals specifically for self-insured claims over time is consistent with that explanation.

Exhibit 3.17 Repeat referrals under the pilot for State Fund and self-insured claims

Referral type	State Fund Pilot	Self-insured Pilot	p-value
Plan development (PD)	N=2,173	N=312	
Range of repeat referrals	0 to 4	0 to 2	
% of claims with ≥1 repeat referrals	11.3%	5.1%	.001
Plan implementation (PI)	N=1,898	N=268	
Range of repeat referrals	0 to 2	0 to 2	
% of claims with ≥1 repeat referrals	6.6%	4.9%	NS

¹⁹ In addition to creating comparable 18-month time periods, we calculated the observation period available for each claim by counting the number of days remaining in the allotted time window after the first referral. We also subtracted the number of days that the claim was in closed status after the first referral (when no referrals were possible). We used this claim-level observation time in Poisson count models to produce incidence rate ratios (IRR). The IRR for self-insured compared with State Fund claims was 0.385 (p<.001) for PD referrals and 0.639 for PI referrals (NS).

²⁰ In the 2010 report, 2.8% of self-insured claims had repeat PD referrals and 3.1% had repeat PI referrals under the pilot program.

Exhibit 3.18 presents information about repeat AWA, PD and PI referrals for State Fund claims, comparing the pilot period to the baseline period. A substantially lower percentage of claims having repeat referrals was observed for all three referral types under the pilot compared with baseline. However, the reduction in repeat AWA referrals appeared smaller in this year’s report compared with the 2010 report.

From baseline to pilot, the percentage of claims with repeat referrals decreased by:

- 27.3% for AWA referrals (compared with 40.6% in the 2010 report)
- 24.6% for PD referrals (compared with 24.1% in the 2010 report)
- 31.0% for PI referrals (compared with 34.7% in the 2010 report)

These findings held up even when we controlled for observation time.²¹

Exhibit 3.18 Change in repeat referrals from baseline to pilot for State Fund claims

Referral type	State Fund Baseline	State Fund Pilot	Percent change	p-value
Ability to work assessment (AWA)	N=10,459	N=10,141		
Range of repeat referrals	0 to 4	0 to 4		
% of claims with ≥1 repeat referrals	18.0%	13.1%	↓27.3%	<.001
Plan development (PD)	N=3,297	N=2,173		
Range of repeat referrals	0 to 4	0 to 4		
% of claims with ≥1 repeat referrals	15.0%	11.3%	↓24.6%	<.001
Plan implementation (PI)	N=2,025	N=1,898		
Range of repeat referrals	0 to 3	0 to 2		
% of claims with ≥1 repeat referrals	9.6%	6.6%	↓31.0%	.001

²¹ In addition to creating comparable 18-month time periods, we calculated the observation period available for each claim by counting the number of days remaining in the allotted time window after the first referral. We also subtracted the number of days that the claim was in closed status after the first referral (when no referrals were possible). We used this claim-level observation time in Poisson count models to produce incidence rate ratios. Using these models, the estimates for the percent decrease in claims with repeat referrals were as follows: AWA: 33.9% (p<.001), PD: 22.1% (p=.001), PI: 25.7% (p=.008).

Plans Submitted to L&I

The pilot program included a new 90-day limit for plan development activities by vocational rehabilitation counselors. For this section, we assessed the likelihood and timing of plans being submitted to L&I for consideration after plan development referrals were made.

Key findings:

- Under the pilot, 61% of State Fund claims with first-time plan development referrals had a plan submitted to L&I, compared with 67% for self-insured claims. Self-insured claims were 27% more likely on average to have a plan submitted to L&I at any point after plan development referral, compared with the State Fund.
- At baseline, 38% of first-time State Fund plan development referrals had a plan submitted to L&I, compared with 61% post-pilot. Post-pilot claims were more than twice as likely on average to have a plan submitted to L&I at any point after plan development referral, compared with baseline claims.
- The timing of plan submissions that we observed is consistent with the new 90-day submission requirement being the mechanism encouraging timelier plan submissions.

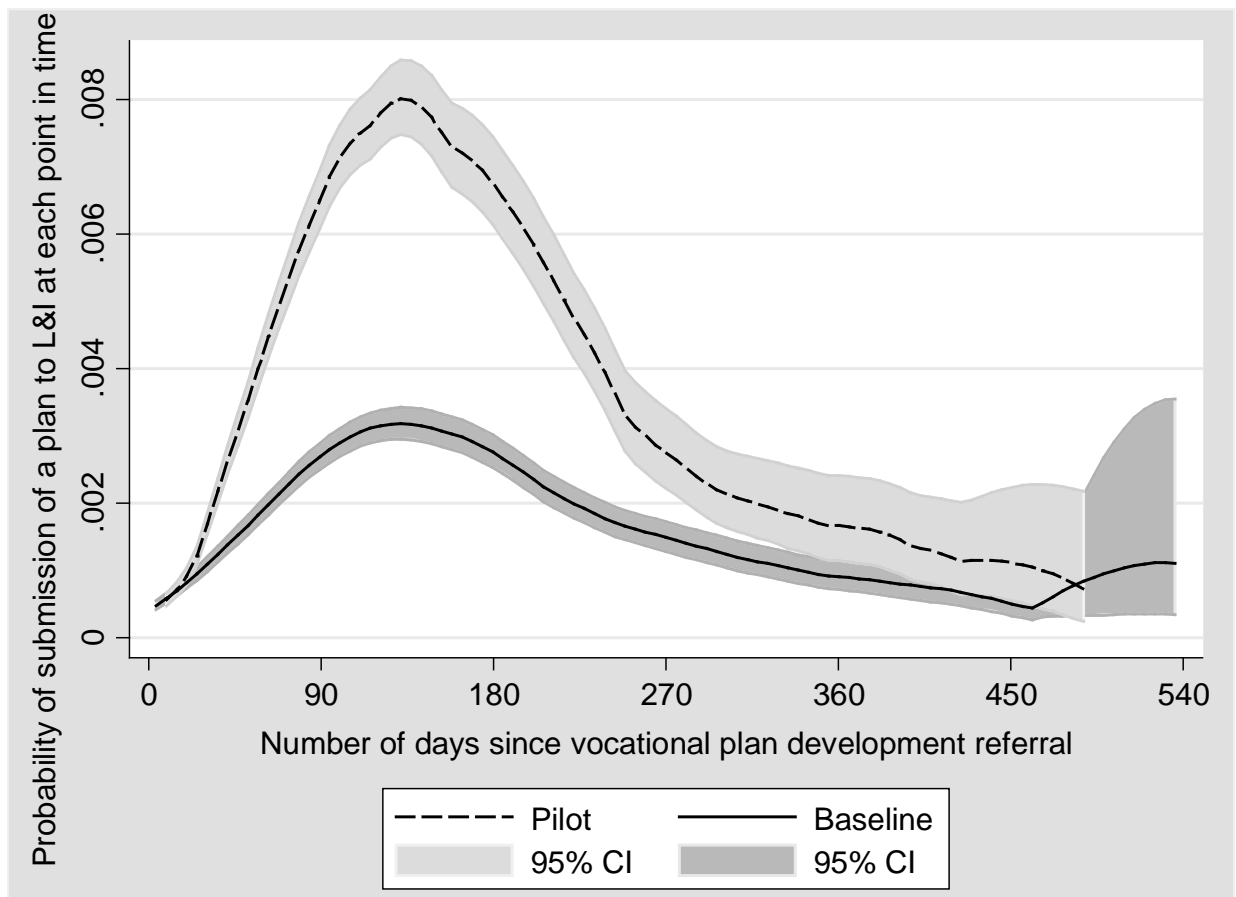
The samples constructed for the analyses in this section consist of those claims with a first-time plan development referral occurring within either the baseline or the pilot period. Time to plan submission was calculated by subtracting the first plan development referral date from the first subsequent plan submission date occurring within the same baseline or pilot time window (later plan submissions were treated as unobserved and censored). Controlling for employer size did not substantively affect these estimates or comparisons, and was not implemented in the final analyses presented here.

Under the pilot, 60.9% of the 2,164 claims with first-time State Fund plan development referrals had a plan submitted to L&I, compared with 66.9% of the 311 self-insured claims ($p=.04$). Because the available observation time was very short for those plans with a plan development referral occurring late in the allotted time window, we also used a survival analysis approach. We found that self-insured claims were 27.3% more likely on average to have a plan submitted to L&I at any point after plan development referral, compared with State Fund claims ($p=.008$).

We then compared the pilot period to the baseline period for State Fund claims. At baseline, 38.3% of the 3,271 claims with first-time State Fund plan development referrals had a plan submitted to L&I, compared with 60.9% of the 2,164 post-pilot claims ($p<.001$). Using a survival analysis approach, we found that post-pilot claims were 2.19 times more likely on average to have a plan submitted to L&I at any point after plan development referral, compared with baseline claims ($p<.001$).

However, although we observed a significant improvement in plan submission under the pilot, this doesn't tell the whole story. Exhibit 3.19 depicts the probability of a plan having been submitted by the number of days that had passed since the plan development referral was made. The difference in probability of plan submission between pilot and baseline increased sharply beginning about 30 days after the plan development referral and peaking at about 120 days. The difference in probability of plan submission then decreased, and pilot and baseline probabilities appeared to converge after about 330 days. This pattern is consistent with the new 90-day submission requirement having been the mechanism encouraging timelier plan submissions.

Exhibit 3.19 Probability of plan submission after plan development referral, comparing pilot to baseline (State Fund only)



Note: The probabilities on the y-axis may appear low. They represent the instantaneous probability (hazard) of plan submission at each particular timepoint (each specific number of days) after vocational plan development referral. This exhibit is intended to illustrate how the probability of plan submission changes as time passes, rather than to quantify the overall probability of plan submission. The cumulative probability of plan submission through a given number of days, e.g., 90 days after plan development referral, would be much higher.

Plans Approved by Default

The pilot program included a new 15-day limit for action by L&I on a submitted plan. If no action is taken within 15 days, the plan is deemed approved by default. Of those plans approved or deemed approved during the 18-month post-pilot period, only 9 State Fund plans (0.2%) and 0 self-insured plans were deemed approved by default rather than having been actively approved.

We used the percentage of plans approved after more than 15 days from the plan submission date as a measure that would allow us to assess change from baseline to pilot in plan approval delays. Only 1.9% of the 2,126 State Fund plans approved during the 18-month pilot period took more than 15 days to be approved, compared with 6.6% of the 2,376 plans approved during the baseline period ($p < .001$). Of the 285 self-insured plans approved during the pilot period, 0.7% took more than 15 days, not significantly different from State Fund plans.

Taken together, this information indicates that the time delay from plan submission to approval has been significantly reduced under the pilot, and that only a small number of approvals took longer than 15 days. In most of those cases L&I issued a temporary denial letter in order that the plan not be deemed approved by default, presumably to allow time for a plan-related problem to be resolved.

Key findings:

- Of plans approved during the post-pilot period, only 9 State Fund plans (0.2%) and 0 self-insured plans were deemed approved by default.
- There was a significant reduction in the percentage of State Fund plans that took more than 15 days to be approved from the baseline period (6.6%) to the pilot period (1.9%).
- Only 1 to 2% of State Fund and self-insured plans took more than 15 days to be approved during the pilot period.

Time from Plan Development Referral to Retraining

The new timelines required by the pilot program, specifically the 90-day limit for plan development by vocational rehabilitation counselors and the 15-day limit for action by L&I on a submitted plan, would be expected to shorten the timeframe from referral for plan development to initiation of retraining activities for those workers undertaking retraining. For this section, we assessed timeliness from the date a worker was first referred for plan development until the first approved start date for retraining activities (plan implementation). Factors outside the direct control of either L&I or the vocational rehabilitation counselor may also affect the length of time required. For example, many training programs have specific start dates that may require a waiting period after plan approval.

The samples constructed for the analyses in this section consist of those claims with a first-time plan development referral occurring within either the baseline or the pilot period. Time from plan development referral to retraining was calculated by subtracting the first plan development referral date from the first subsequent plan implementation date occurring within the same baseline or pilot time window (later plan implementations were treated as unobserved and censored). Option 2 plans were excluded. The pilot period was different than that used for most analyses in this report, due to evidence of seasonality in retraining start dates that could introduce bias (September was by far the most common month that retraining started, followed by January and June). Therefore we set the baseline and pilot time periods to cover the same calendar months (baseline: January 1, 2006 - June 30, 2007; pilot: January 1, 2009 - June 30, 2010). Controlling for employer size did not substantively affect these estimates or comparisons, and was not implemented in the final analyses presented here.

Key findings:

- Under the pilot, self-insured claims were 36% more likely on average than State Fund claims to have retraining begin at any point after plan development referral.
- State Fund post-pilot claims were 52% more likely on average than baseline claims to have retraining begin at any point after plan development referral.

Under the pilot, 48.7% of the 1,735 State Fund claims with a first-time plan development referral began retraining, compared with 53.7% of the 259 self-insured claims (difference not significant). Because the available observation time was very short for those plans with a plan development referral occurring late in the allotted time window, we also used a survival analysis approach. Self-insured claims were 35.7% more likely on average than State Fund claims to have retraining begin at any point after plan development referral ($p=.008$).

We then compared the pilot and baseline periods for State Fund claims. At baseline, 38.1% of the 3,171 claims with first-time plan development referrals began retraining, compared with 48.7% of the 1,735 post-pilot claims ($p<.001$). Using a survival analysis approach, we found that post-pilot claims were 51.7% more likely on average than baseline claims to have retraining begin at any point after plan development referral ($p<.001$).

Completed Retraining Plans

Retraining plans exist in one of three states once begun: (1) ongoing, (2) completed and ended, or (3) ended prior to completion. The pilot program doubled the maximum allowable length of a retraining plan from 12 months to 24 months. There is interest in knowing the effect of longer retraining plans on plan completion rates.

For this analysis, it was necessary to construct samples for which all or nearly all plans had ended (whether completed or not). Survival analysis was not suitable because the pilot program doubled the maximum plan length, making direct comparison of time from start date to completion untenable. We therefore compared all plans approved during the first 6 months of 2007 to all plans approved during the first 6 months of 2008. (We also compared the first 6 months of 2006 with the first 6 months of 2008, with very similar findings to those presented here.) Using these time periods, only 1 pre-pilot plan and 5 post-pilot plans had not ended and were excluded. (As a sensitivity analysis, we also included the 6 ongoing plans by assuming the worst case scenario, that all ended prior to completion. There was negligible impact on the findings). Although the first 6 months of 2008 was a time of transition, later samples contained too many ongoing plans to be usable for this analysis. We expect to be able to compare longer timeframes in next year's report.

Under the pilot, 56.9% of the 571 State Fund retraining plans were completed, compared with 48.3% of the 58 self-insured plans (difference not statistically significant).

We then compared the pilot period to the baseline period for State Fund plans. At baseline, 58.8% of 621 plans were completed, compared with 56.9% of 571 post-pilot plans (difference not statistically significant).

L&I's current data systems replace the initial approved plan length with the actual time spent in the retraining plan as plans are ended, whether completed or not. This made it impossible to assess completion rates by initial approved plan length. The intended plan length would be valuable information for many descriptive, evaluative, and research purposes, including comparisons of various outcomes before and under the pilot program and between shorter and longer plans. We recommend that, if feasible, L&I begin to record and preserve initial approved plan length for every plan.

Key findings:

- Under the pilot, 57% of State Fund retraining plans were completed, compared with 48% of self-insured plans (difference not significant).
- 59% of baseline State Fund plans were completed, compared with 57% of post-pilot State Fund plans (difference not significant).
- Initial approved plan length is not currently preserved by L&I data systems, but would be a valuable addition for descriptive, evaluative, and research purposes.

Time from Plan Completion to Claim Closure

For this section, we assessed the likelihood and timing of claim closure after a retraining plan was completed and the trainee was determined employable. We would not expect any of the specific requirements under the pilot program to directly impact this measure. However, the department has been attempting to improve system efficiency, and this is one element of the vocational rehabilitation process that might affect overall claim duration.

Key findings:

- Under the pilot, 76% of State Fund completed plans had the claim closed, compared with 51% of self-insured completed plans. Self-insured plans were 60% less likely on average to have the claim closed at any point after a completed plan, compared with State Fund plans.
- At baseline, 55% of State Fund completed plans had the claim closed, compared with 76% post-pilot. Post-pilot completed plans were 49% more likely on average to have the claim closed at any point after a completed plan, compared with baseline plans.

This was a plan-level analysis, and plans were included only if the retraining plan was completed and the trainee was determined employable (by definition, Option 2 plans were also excluded). Samples were constructed based on the completed plan end date occurring within either the baseline or the pilot period. Time to claim closure was calculated by subtracting the completed plan end date from the first subsequent claim closure date occurring within the same baseline or pilot time window (later claim closures were treated as unobserved and censored). Controlling for employer size did not substantively affect these estimates or comparisons, and was not implemented in the final analyses presented here.

Under the pilot, 76.3% of the 651 State Fund completed plans had the claim closed, compared with 50.7% of the 75 self-insured completed plans ($p < .001$). Because the available observation time was very short for those plans that ended late in the allotted time window, we also used a survival analysis approach. We found that self-insured plans were 60.3% less likely on average to have the claim closed at any point after a completed plan, compared with State Fund plans ($p < .001$).

We then compared the pilot period to the baseline period for State Fund plans. At baseline, 55.2% of the 858 completed plans had the claim closed, compared with 76.3% of the 651 post-pilot completed plans ($p < .001$). Using a survival analysis approach, we found that post-pilot completed plans were 49.3% more likely on average to have the claim closed at any point after a completed plan, compared with baseline plans ($p < .001$).

L&I Vocational Service Specialists at WorkSource

WorkSource is a joint venture of government and community agencies that provides services such as free use of computers and other career resources, job and training referrals, workshops on how to get a job, and translation services.

Prior to the pilot program (and since 1981), L&I had been sending vocational referrals exclusively to private sector vocational rehabilitation service providers. Under the pilot program, L&I staff can make vocational referrals to Vocational Service Specialists (VSSs) that were hired by L&I and stationed at six existing WorkSource locations (one in each of the six L&I regions). Exhibit 3.20 lists each of the six L&I-staffed WorkSource locations, areas served, and the date of the first vocational referral made to each location.

Key findings:

- There have been relatively few referrals to the six L&I WorkSource locations so far. The planned rollout was slowed due to the state hiring freeze, staff turnover, and recruitment challenges.
- State Fund claims were more likely to have involved a WorkSource referral if workers:
 - Were younger
 - Had lower pre-injury wages
 - Had a more recent injury
 - Resided in a rural county

There have been relatively few WorkSource referrals so far, and some sites did not begin accepting referrals until late in 2009. In addition, the Mt. Vernon and Tumwater locations did not have VSS staffing after June 2010 due to vacated and unfilled positions. The descriptive information presented here must therefore still be considered preliminary. We were informed that the planned rollout was slowed considerably due to the state hiring freeze, staff turnover, and challenges in recruiting appropriate candidates for open VSS positions.

Exhibit 3.20 WorkSource locations (in order of initial VSS placement)

Location	Counties Served	First referral date
Tumwater	Lewis, Mason, Thurston	July 23, 2008
Spokane	Adams, Ferry, Lincoln, Okanogan (shared), Pend Oreille, Spokane, Stevens, Whitman	August 11, 2008
Kennewick	Asotin, Benton, Columbia, Franklin, Garfield, Walla Walla	June 5, 2009
Tacoma	Pierce	July 7, 2009
Mt. Vernon	San Juan, Skagit	October 12, 2009
Renton	King	November 18, 2009

Of 27,502 claims (for 26,455 workers) with any vocational referrals made since L&I began to place VSSs at WorkSource locations, 367 had at least one referral to a VSS based at WorkSource (1.3%). The vast majority were EI referrals. There was at least one AWA referral to WorkSource for 124 claims. Only 10 claims had at least one PD referral to WorkSource, and only 6 claims had at least one PI referral to WorkSource.

For the comparison of worker characteristics presented in Exhibit 3.21, we excluded workers who resided in areas served by Mt. Vernon and Tumwater but were first referred after June 2010 as well as those who did not reside within any of the counties served by L&I WorkSource locations (and where an L&I WorkSource referral would not be expected, see Exhibit 3.20). This limited the comparison to 14,692 total claims, 336 of which had at least one WorkSource referral. (23 claims with a WorkSource referral were excluded because the residence county was unknown, and 8 due to being outside a WorkSource service area.)

State Fund claims were significantly more likely to have involved a WorkSource referral if workers:

- Were younger (though the difference was small)
- Had lower pre-injury wages (income tends to be lower in rural counties, and rural residence was also associated with WorkSource referrals)
- Had a more recent injury (WorkSource was a new option and claim managers tend to refer each individual worker to the same VRC they have already seen, in the absence of a specific reason for a change)
- Resided in a rural county

Exhibit 3.21 Worker characteristics by WorkSource referral status (State Fund claims within L&I WorkSource service areas with vocational referrals made 7/2008-12/2010)

Characteristic	All claims (N=14,692)	Only private sector (N=14,356)	Any WorkSource (N=336)	p-value
	Mean	Mean	Mean	
Age (as of 12/31/2010)	46.5	46.5	45.2	.04
Adjusted monthly pre-injury wage	\$3,158	\$3,163	\$2,925	.008
Months since injury (to 12/31/2010)	42.5	42.9	25.7	<.001
	Percent	Percent	Percent	
Female	33.4	33.5	32.1	NS
Married	49.6	49.6	49.4	NS
1 or more dependents	36.4	36.3	37.8	NS
Preferred language not English	13.3	13.3	9.8	NS
Occupational disease	13.0	13.1	10.1	NS
Prior treatment for same or similar injury	20.2	20.2	20.6	NS
Coexisting conditions that might delay recovery	8.5	8.5	8.3	NS
Rural residence county	24.6	24.1	44.4	<.001
Distressed residence county	7.1	7.1	9.5	NS
Large employer (≥50 FTE)	51.4	51.4	51.8	NS

Workers' Opinions

We interviewed 361 workers during the fall of 2009, shortly after they were determined eligible and referred for plan development (Survey A). We report here their opinions regarding the effectiveness of the workers' compensation system and their satisfaction with the vocational rehabilitation system.

Key findings:

- Among workers determined eligible for plan development in the fall of 2009:
 - o 69% assessed the workers' compensation system as at least somewhat effective
 - o 69% were at least somewhat satisfied with the vocational rehabilitation system
 - o Workers with self-insured claims were less likely to be satisfied with the vocational rehabilitation system (58% compared with 71% for State Fund).
- The following characteristics were significantly associated with negative responses to both questions (and the observed differences were quite large):
 - o More time having passed since the injury
 - o Having been determined eligible for plan development more than once
 - o Interviewed in English rather than Spanish
 - o Poor health
 - o Poor ability to function outside of work
- Workers reporting more economic problems were more likely to rate the workers' compensation system as ineffective.
- Older workers and those who had completed a formal apprenticeship were more dissatisfied with the vocational rehabilitation system.

All results in this section have been weighted so that they can be considered to reflect the opinions of all workers²² in the vocational rehabilitation system who were determined eligible and referred for plan development during the fall of 2009, specifically the 20 weeks from July 20, 2009 through December 4, 2009. (See the Methods chapter for more detail on response rates and post-stratification methodology. Appendix A contains a report on responses to all questions in this survey. Appendix B contains all interview questions for Survey A.)

²² With the exception of workers who were ineligible for the survey: under age 18, address outside Washington State, L&I employees, employment through a prison program, or unable to complete a telephone interview in English or Spanish.

First we present the response frequencies for each of the two questions, and then we discuss other characteristics and survey responses that were associated with the responses to these two questions.

- 1) Thinking about the big picture, how well would you say the Washington State workers' compensation system meets the needs of injured workers? Would you say the workers' compensation system is {`very effective' to `very ineffective' }?

Very effective	19.7%
Somewhat effective	46.2%
Somewhat ineffective	20.0%
Very ineffective	9.4%
Don't know	4.6%

- 2) How would you rate your overall experience with the vocational rehabilitation system so far? Would you say you were {`very satisfied' to `very dissatisfied' }?

Very satisfied	29.9%
Somewhat satisfied	34.8%
Neither satisfied nor dissatisfied	8.7%
Somewhat dissatisfied	10.5%
Very dissatisfied	10.0%
Don't know	6.2%

In summary, of the subset who responded to each question (excluding those who responded "Don't know"):

- 69% assessed the workers' compensation system as at least somewhat effective (about the same for workers with State Fund or self-insured claims)
- 69% were at least somewhat satisfied with the vocational rehabilitation system (71% for workers with State Fund claims versus 58% for those with self-insured claims, $p=.04$)

This indicates that, overall, most workers about to embark upon vocational plan development were fairly satisfied with the workers' compensation system in general and the vocational rehabilitation system more specifically. However, workers with self-insured claims were less likely to be satisfied with the vocational rehabilitation system. We then focused in on the significant percentage of workers who responded to either question with a negative assessment. Each measure presented in Exhibit 3.22 included the subset of workers who answered that particular question (excluding those who responded "Don't know"), and was divided into those who gave a negative response to the question versus those who were either neutral or gave a positive response.

There were a number of striking differences between those with negative assessments compared with those who gave neutral or positive assessments, as shown in Exhibit 3.22. The following characteristics were significantly associated with negative responses to both questions (and the observed differences were quite large):

- More time having passed since the injury
- Having been determined eligible for plan development more than once
- Interviewed in English rather than Spanish (however there were only 15 Spanish interviews)
- Poor health
- Poor ability to function outside of work

Workers reporting more economic problems were more likely to rate the workers' compensation system as ineffective ($p=.002$), but were not less satisfied with the vocational rehabilitation system. Two characteristics were significantly associated with dissatisfaction with the vocational rehabilitation system, but not with opinions about overall effectiveness of the workers' compensation system:

- Those dissatisfied with the vocational rehabilitation system were 3.5 years older on average compared with those who weren't ($p=.002$).
- 28% of those who had completed a formal apprenticeship prior to injury were dissatisfied with the vocational rehabilitation system, compared with 19% of those who hadn't completed a formal apprenticeship ($p=.04$).

Exhibit 3.22 Relationships between worker characteristics and worker opinions

Characteristic	Data source	Workers' compensation system is ineffective		Dissatisfied with vocational rehabilitation system	
		mean	p-value	mean	p-value
Age at survey	Survey		NS		.002
Negative assessment		47.5		49.8	
Positive assessment		47.2		46.3	
Years from injury to survey	Admin		<.001		<.001
Negative assessment		3.8		4.0	
Positive assessment		2.9		3.0	
		percent	p-value	percent	p-value
Interview language	Survey		.004		.008
English		32.1		22.8	
Spanish		6.2		0.0	
Determined eligible for plan development more than once	Admin		<.001		<.001
Yes		46.2		40.0	
No		26.0		15.9	
Apprenticeship before injury	Survey		NS		.04
Yes		34.2		27.7	
No		29.6		19.4	
Economic risk	Survey		.002		NS
Low		18.9		15.7	
Moderate		28.3		22.7	
High		38.1		23.4	
Self-rated health	Survey		<.001		<.001
Poor		49.5		34.8	
Fair or better		24.0		17.1	
Self-rated non-work functioning	Survey		<.001		<.001
Poor		45.5		33.8	
Fair or better		24.5		16.0	

Note: The following characteristics had no significant association with either measure and were excluded from this table: State Fund vs. self-insured claim, pre-injury wages, gender, marital status, dependents, educational level, occupational disease, prior treatment for same or similar injury (State Fund only), coexisting conditions that might delay recovery (State Fund only), rural or distressed residence county, large employer (State Fund only), satisfaction with job where injured, union member at time of injury.

Summary of Findings

Training Strategy

- About 96% of both State Fund and self-insured plans involved formal training under the pilot. In comparison, 90% of State Fund plans involved formal training at baseline.
- State Fund plans were less likely to involve formal training for those who:
 - Had less education
 - Had an occupational disease
 - Resided in a rural or distressed county
 - Had a small employer

Labor Market Demand

- 51% of State Fund plans had high demand goal occupations under the pilot, compared with 76% of self-insured plans.
- The percentage of plans with high demand goal occupations is gradually rising over time (both State Fund and self-insured).
- State Fund plans were more likely to have a high demand goal occupation if workers:
 - Were older
 - Had lower pre-injury wages
 - Were female
 - Had no dependents
 - Had more education
 - Had less physical capacity
 - Had an occupational disease
 - Resided in a rural or distressed county
 - Had a large employer
- Self-insured plans were more likely to have a high demand goal occupation if workers:
 - Had lower pre-injury wages
 - Were female
 - Had less physical capacity
 - Resided in a distressed county

Goal Occupations

- The 46 most frequent goal occupations accounted for 80% of vocational plans.
- Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand.

Option 2

- Option 2 was chosen more often by workers with self-insured claims (30%) compared with State Fund (26%).
- Workers with State Fund claims were more likely to have chosen Option 2 if they:
 - o Had lower pre-injury wages
 - o Were male
 - o Had less education
 - o Had no prior treatment for the same or a similar injury
 - o Had a small employer
- Workers with self-insured claims were more likely to have chosen Option 2 if they were older or had no dependents.
- It did not appear that having been determined eligible for plan development more than once (an indication of problems with previous plans) was associated with choosing Option 2.
- Survey respondents who thought that their plan would have a negative effect on their ability to return to work were more likely to choose Option 2.
- There were a number of striking differences between those not obtaining a plan within a year and those who did have a plan approved and subsequently chose either option.
- Among those choosing Option 2, 42% of workers with State Fund claims and 27% of workers with self-insured claims returned to work within 3 years of claim closure. Workers with self-insured claims were 37% less likely than those with State Fund claims to return to work during any quarter after claim closure.
- Among those choosing Option 2, those who returned to work experienced a 46% drop in average wages, and earned less than full-time minimum wage in an average quarter. Those earning more pre-injury also earned more on return to work, but had a larger percent drop in average wages. State Fund workers appeared to fare better on every wage measure.

Repeat Referrals

- Self-insured claims had fewer repeat plan development referrals under the pilot than did State Fund claims; there was no significant difference for plan implementation referrals.
- From baseline to pilot, the percentage of State Fund claims with repeat referrals decreased by:
 - 27% for AWA referrals (compared with 41% in the 2010 report)
 - 25% for PD referrals (compared with 24% in the 2010 report)
 - 31% for PI referrals (compared with 35% in the 2010 report)

Plans Submitted to L&I

- Under the pilot, 61% of State Fund claims with first-time plan development referrals had a plan submitted to L&I, compared with 67% for self-insured claims. Self-insured claims were 27% more likely on average to have a plan submitted to L&I at any point after plan development referral, compared with the State Fund.
- At baseline, 38% of first-time State Fund plan development referrals had a plan submitted to L&I, compared with 61% post-pilot. Post-pilot claims were more than twice as likely on average to have a plan submitted to L&I at any point after plan development referral, compared with baseline claims.
- The timing of plan submissions that we observed is consistent with the new 90-day submission requirement being the mechanism encouraging timelier plan submissions.

Plans Approved by Default

- Of plans approved during the post-pilot period, only 9 State Fund plans (0.2%) and 0 self-insured plans were deemed approved by default.
- There was a significant reduction in the percentage of State Fund plans that took more than 15 days for plan approval from the baseline period (6.6%) to the pilot period (1.9%).
- Only 1 to 2% of State Fund and self-insured plans took more than 15 days to be approved during the pilot period.

Time from Plan Development Referral to Retraining

- Under the pilot, self-insured claims were 36% more likely on average than State Fund claims to have retraining begin at any point after plan development referral.
- State Fund post-pilot claims were 52% more likely on average than baseline claims to have retraining begin at any point after plan development referral.

Completed Retraining Plans

- Of plans that had ended, 57% of post-pilot State Fund retraining plans were completed, compared with 48% of self-insured plans (difference not significant).
- 59% of baseline State Fund plans were completed, compared with 57% of post-pilot State Fund plans (difference not significant).
- Initial approved plan length is not currently preserved by L&I data systems, but would be a valuable addition for descriptive, evaluative, and research purposes.

Time from Plan Completion to Claim Closure

- Under the pilot, 76% of State Fund completed plans had the claim closed, compared with 51% of self-insured completed plans. Self-insured plans were 60% less likely on average to have the claim closed at any point after a completed plan, compared with State Fund plans.
- At baseline, 55% of State Fund completed plans had the claim closed, compared with 76% post-pilot. Post-pilot completed plans were 49% more likely on average to have the claim closed at any point after a completed plan, compared with baseline plans.

L&I Vocational Service Specialists at WorkSource

- There have been relatively few referrals to the six L&I WorkSource locations so far. The planned rollout was slowed due to the state hiring freeze, staff turnover, and recruitment challenges.
- State Fund claims were more likely to have involved a WorkSource referral if workers:
 - o Were younger
 - o Had lower pre-injury wages
 - o Had a more recent injury
 - o Resided in a rural county

Workers' Opinions

- Among workers determined eligible for plan development in the fall of 2009:
 - o 69% assessed the workers' compensation system as at least somewhat effective (about the same for State Fund and self-insured)
 - o 69% were at least somewhat satisfied with the vocational rehabilitation system (71% for State Fund versus 58% for self-insured)
- The following characteristics were significantly associated with negative responses to both questions (and the observed differences were quite large):
 - o More time having passed since the injury
 - o Having been determined eligible for plan development more than once
 - o Interviewed in English rather than Spanish
 - o Poor health
 - o Poor ability to function outside of work
- Workers reporting more economic problems were more likely to rate the workers' compensation system as ineffective ($p=.002$), but were not less satisfied with the vocational rehabilitation system.

- Two characteristics were significantly associated with satisfaction with the vocational rehabilitation system, but not with opinions about overall effectiveness of the workers' compensation system:
 - o Those dissatisfied with the vocational rehabilitation system were 3.5 years older on average compared with those who weren't
 - o 28% of those who had completed a formal apprenticeship prior to injury were dissatisfied with the vocational rehabilitation system, compared with 19% of those who hadn't completed a formal apprenticeship

CHAPTER 4. DISCUSSION

We conclude by discussing our initial findings and presenting our assessment of L&I performance and of whether the pilot program has contributed to improvements in Washington State's vocational rehabilitation program. This assessment is necessarily preliminary, since most employment and worker satisfaction outcomes data are not yet available as of this report. The data sources that we have available to us are quite rich and we are reasonably confident that by the final report in the fall of 2012 we will be able to make some valid evaluative judgments about the effects of this major initiative. However, we would like to convey that initial approved plan length is not currently preserved by L&I data systems, but would be a valuable addition for descriptive, evaluative, and research purposes.

Based on the preliminary findings presented in this report, the following areas were particularly noteworthy and we will discuss each in turn:

1. We found evidence for a number of improvements in efficiency under the pilot program (compared with baseline).
2. Workers with previous plan development referrals were not more likely to choose Option 2, contrary to expectations. In fact, there were few notable differences between those choosing Option 2 over a retraining plan. In contrast, there were striking differences between those who obtained a plan and chose either option compared with those who did not obtain a plan within a year of plan eligibility determination. Employment outcomes for those choosing Option 2 were poor relative to pre-injury wages and full-time minimum wage standards, but cannot yet be compared to outcomes for those choosing Option 1.
3. Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand. However, the percentage of plans with high demand goal occupations is gradually rising over time (both State Fund and self-insured).
4. Several processes appeared more efficient for self-insured claims compared with State Fund claims, but time from plan completion to claim closure, employment outcomes for those choosing Option 2, and worker satisfaction were better for those with State Fund claims.
5. Most workers had positive opinions about the workers' compensation system in general and the vocational rehabilitation system more specifically. Negative opinions were strongly associated with having been referred for plan development more than once and with more time passing since the injury (among other factors).

Efficiency Improvements

We found preliminary evidence of a number of improvements in efficiency under the pilot program (compared with baseline). As in last year's report, we observed substantially fewer repeat referrals for State Fund claims under the pilot. However, the reduction in repeat AWA referrals appeared smaller in this year's report compared with the 2010 report. From baseline to pilot, the percentage of claims with repeat referrals decreased by:

- 27% for AWA referrals (compared with 41% in the 2010 report)
- 25% for PD referrals (compared with 24% in the 2010 report)
- 31% for PI referrals (compared with 35% in the 2010 report)

At baseline, 38% of first-time State Fund plan development referrals had a plan submitted to L&I, compared with 61% post-pilot. Compared with baseline claims, post-pilot claims were more than twice as likely on average to have a plan submitted to L&I at any point after plan development referral. Further, the timing of plan submissions that we observed was consistent with the new 90-day submission requirement having been the mechanism that encouraged timelier plan submissions. In addition, the overall duration from plan development referral to retraining has decreased for State Fund claims under the pilot; on average, at any point in time after plan development referral, post-pilot claims were 54% more likely than baseline claims to have had retraining begin.

Of plans approved during the post-pilot period, only 9 State Fund plans (0.2%) were deemed approved by default. There was a significant reduction in the percentage of State Fund plans that took more than 15 days for plan approval from the baseline period (6.6%) to the pilot period (1.9%). This indicates that the time delay from plan submission to approval has been significantly reduced under the pilot, and that only a small number of approvals took longer than 15 days. In most of those cases L&I issued a temporary denial letter in order that the plan not be deemed approved by default, presumably to allow time for a plan-related problem to be resolved.

There was no significant difference from baseline to pilot in the percentage of State Fund plans that were completed prior to ending (59% at baseline compared with 57% post-pilot). However, we expected to observe more post-pilot plans ending prior to completion under the pilot, simply due to the statutory doubling of the maximum allowed plan length. Longer plans allow more time for many factors to interfere with plan completion, such as changes of residence, deteriorating health, academic fatigue, etc. The lack of an observed difference provides some evidence that the longer plan lengths are not more difficult for workers to complete, on average. We will have more detailed information available on this point when results from Survey B are available.

Finally, the duration from retraining plan completion to claim closure for workers determined employable has decreased under the pilot. At baseline, 55% of State Fund completed plans had the claim closed compared with 76% post-pilot. Compared with baseline plans, post-pilot

completed plans were 49% more likely on average to have the claim closed at any point after a completed plan.

Option 2

Option 2 was chosen by 26% of workers with State Fund and 30% of workers with self-insured claims. Workers with previous plan development referrals (an indication of problems with previous plans) were not more likely to choose Option 2. This was surprising, since Option 2 has been described as a mechanism to allow workers to exit the system who previously had no viable means to do so. The fiscal note for ESSB 5920 incorporated the assumption that workers who had previously participated in incomplete retraining plans would choose Option 2 more often (about half the time), when in fact there appears to be little or no difference. We expect to learn more about workers' motivations for choosing Option 2 from the responses to Survey B, which will be available for next year's report.

Based on administrative claims data, there were few notable differences between those who chose Option 2 and those who chose a retraining plan, but workers with lower pre-injury wages, who were male, and who had less education tended to choose Option 2. Survey respondents who thought that their plan would have a negative effect on their ability to return to work were more likely to choose Option 2. Other than that one logical finding, none of the survey questions were significant predictors of option choice, including workers' opinions about the workers' compensation system generally or the vocational rehabilitation system in particular, job/occupational longevity or apprenticeship prior to injury, self-rated health, self-rated non-work functioning, or questions about economic risk.

In contrast, there were a number of striking differences between those who did not obtain a plan within a year of being determined eligible for retraining compared with those who did have a plan approved and subsequently chose either option. Those with no plan were more likely to:

- Be older at the time of the survey
- Have had more time pass since their injury
- Have been determined eligible for a plan more than once prior to the survey
- Have worked for their employer and/or in their occupation longer before their injury
- Report poor self-rated health and/or poor self-rated non-work functioning
- Think that the workers' compensation system is ineffective
- Be dissatisfied with the vocational rehabilitation system
- Think that the retraining plan would have a negative effect on their ability to return to work
- Be uncertain they would return to work within 6 months of completing the retraining plan

As described in more detail earlier, this is a relatively heterogeneous group of workers that did not obtain a plan for a wide variety of reasons. However, the vocational rehabilitation system does not seem to be meeting the needs of many in this group, despite various improvements over time and the current availability of Option 2 under the pilot program. Obtaining a better understanding of the particular needs of workers in this category will likely be critical in order for L&I to be able to develop initiatives that can address the needs of all injured workers, particularly those with the most challenging health situations and those who get “stuck” or continue to cycle repeatedly through the system.

Employment outcomes for those choosing Option 2 were poor relative to pre-injury wages and full-time minimum wage standards. State Fund workers appeared to fare better on every wage measure. Among those choosing Option 2, 42% of workers with State Fund claims and 27% of workers with self-insured claims returned to work within 3 years of claim closure. Those who returned to work experienced a 46% drop in average wages, and earned less than full-time minimum wage in an average quarter. Those earning more pre-injury also earned more on return to work, but had a larger percent drop in average wages. It is important to note that these analyses are purely descriptive. They do not control for the effects of changing job market conditions, and the severe recession occurring during this same time period would likely have accounted for significant but unknown decrements in the likelihood of: (1) finding work, and (2) earning post-retraining wages comparable to or surpassing pre-injury wages. We do not yet know whether workers who complete a retraining plan do better. Employment outcomes for those choosing Option 1 will be included in next year’s report (there are insufficient outcomes data available at this time, due to the length of the retraining plans).

High Demand Goal Occupations

The 46 most frequent goal occupations (with at least 17 plans each) accounted for 80% of vocational plans. Despite the new focus on job demand ratings under the pilot, many of the most frequent goal occupations were rarely rated high demand. For example, the 3rd most prevalent occupational goal was “Electrical and Electronic Equipment Assemblers.” This occupation was the goal of 172 plans, yet was rated high demand for only one fifth of those plans (demand ratings for the same occupation can vary by labor market area and over time). We understand that there are many factors to consider when selecting an occupational goal for each worker in retraining, and that capacity, abilities, preferences, and training opportunities must be weighed on a case-by-case basis. In addition, we do not yet know whether training in high demand occupations results in better employment outcomes. This issue will be addressed in the final report when we expect adequate outcome data to be available. However, it may be useful for L&I to consider whether the relatively high frequency of several occupational goals that were rarely rated high demand are a possible indication of misaligned or inadequate retraining opportunities or perhaps some other systematic problem in occupational goal identification. On a more positive note, the percentage of plans with high demand goal occupations is gradually rising over time (for both State Fund and self-insured plans).

Self-insured Claims Compared with State Fund Claims

Under the pilot program, several processes appeared more efficient for self-insured claims compared with State Fund claims:

- 76% of self-insured plans had high demand goal occupations under the pilot, compared with only 51% of State Fund plans. 11% of self-insured plans had balanced demand goal occupations compared with 20% of State Fund plans.
- Self-insured claims had significantly fewer repeat plan development referrals under the pilot than did State Fund claims.
- Under the pilot, 67% of self-insured claims with first-time plan development referrals had a plan submitted to L&I, compared with 61% for the State Fund. On average, self-insured claims were 27% more likely than State Fund claims to have a plan submitted to L&I at any point after plan development referral.
- Under the pilot, self-insured claims were 36% more likely on average than State Fund claims to have retraining begin at any point after plan development referral.

We cannot say to what extent these observed differences were truly differences in efficiency between State Fund and self-insured claims, or to what extent they may reflect differences in the capture or recording of various events. The reporting of PD and PI referrals to L&I was a new requirement under the pilot program. It is possible that some self-insured employers may not have been fully aware of or may not have fully implemented the new requirement, which would affect these comparisons (e.g., tending to lower the number of observed repeat referrals for self-insured employers).

Only one process appeared more efficient for State Fund claims: 76% of post-pilot State Fund completed plans had the claim closed, compared with 51% of self-insured completed plans. Self-insured plans were 60% less likely on average to have the claim closed at any point after a completed plan, compared with State Fund plans. Unlike those listed above, the accuracy of this particular comparison was unlikely to be affected by differences in capture or recording of events after the pilot program.

In addition, State Fund claims fared better than self-insured claims on several measures not directly related to efficiency:

- Only 58% of workers with self-insured claims were at least somewhat satisfied with the vocational rehabilitation system, compared with 71% of workers with State Fund claims.
- Among those choosing Option 2, 42% of workers with State Fund claims and 27% of workers with self-insured claims returned to work within 3 years of claim closure. Workers with self-insured claims were 37% less likely than those with State Fund claims to return to work during any quarter after claim closure.

- Although there was less observation time available for self-insured claims and we did not control for occupation, industry, or other potentially important factors, State Fund workers appeared to fare better on every wage measure.

Workers' Opinions

Most workers had positive opinions about the workers' compensation system in general and the vocational rehabilitation system more specifically. Among workers determined eligible for plan development in the fall of 2009:

- 69% assessed the workers' compensation system as at least somewhat effective (about the same for workers with State Fund or self-insured claims)
- 69% were at least somewhat satisfied with the vocational rehabilitation system (71% for workers with State Fund claims versus 58% for those with self-insured claims)

These figures are strikingly similar to results of previous surveys of workers in the Washington State workers' compensation system (these surveys were not limited to workers in the vocational rehabilitation system). For example, in a statewide injured worker satisfaction survey conducted in 2000, 69% of respondents interviewed about five months after their State Fund or self-insured claim was filed were at least somewhat satisfied with the way their workers' compensation claim was handled.²³ In a survey conducted on behalf of L&I in 2003, 74% of workers who had experienced time loss were at least somewhat satisfied with their overall claims experience (claims were not necessarily open at the time of the interview).²⁴

The following characteristics were significantly associated with negative responses to both questions (and the observed differences were quite large):

- More time having passed since the injury
- Having been determined eligible for plan development more than once
- Interviewed in English rather than Spanish
- Poor health
- Poor ability to function outside of work

²³ Wickizer T, Franklin G, Fulton-Kehoe D, Gluck J, Smith-Weller T, Turner J, Wu R. *Satisfaction among Injured Workers with Health Care Delivery: Final Survey Results; Deliverable 7G*. Prepared for Occupational Health Services Project, Washington State Department of Labor and Industries. Seattle, WA: University of Washington; 2000.

²⁴ Gilmore Research Group. *Customer Satisfaction Study 2003*. Prepared for State of Washington, Department of Labor & Industries. Seattle, WA: Gilmore Research Group; 2003. Available at: <http://www.lni.wa.gov/news/2003/GilmoreSurvey.pdf> (accessed 8/8/10).

Older workers and those who had completed a formal apprenticeship were more dissatisfied with the vocational rehabilitation system on average. In addition, workers reporting more economic problems were more likely to rate the workers' compensation system as ineffective.

The strong association between negative opinions and (1) having been referred for plan development more than once and (2) more time having passed since the injury suggests that a focus on further process and efficiency improvements could improve workers' experiences and assessments of the workers' compensation system generally and the vocational rehabilitation system in particular.

Conclusions

In closing, we wish to restate that it is too early to draw conclusions about the overall effect of the pilot program. Adequate information about employment and satisfaction outcomes is not yet available, and will be crucial for a more comprehensive assessment of the effects of the pilot as well as an assessment of whether there have been any unintended consequences of the apparent increases in efficiency we have observed thus far. This additional information will be included in the final report next year. Further, although we have compared the pilot program with a baseline period and taken great care to make our samples as comparable as possible, we cannot say with certainty whether the changes we observed were due only to the pilot program. This is a highly complex program with many facets and no concurrent comparison group. L&I implements process changes and improvements in an ongoing way, not all of which are related to the pilot program. Such internal process changes, as well as changes over time in external economic and social conditions, may have contributed to some of the changes we observed.

However, this report provides evidence that there have indeed been a number of improvements in efficiency under the pilot program. There is also room for further improvement, particularly in the areas of selecting high demand goal occupations, further reducing repeat vocational referrals and delays for State Fund claims, and developing better ways to meet the needs of injured workers with the most challenging health situations and those who get "stuck" or continue to cycle repeatedly through the system.

APPENDIX A

Survey A Report

The primary purpose of this survey was to provide information about baseline differences between workers who choose Option 1 versus Option 2. Information about option choice was not yet available at the time of this report and will be included in a future report. The purpose of this appendix is to share descriptive information from the survey about the population of workers determined eligible for plan development under the pilot program.

Key Points:

- Most were satisfied with their job before they were injured, and most worked full-time.
- A high degree of economic stress was reported:
 - o 70% worried almost all the time about their ability to cover expenses or pay bills.
 - o 41% reported recent contact from a credit agency about unpaid bills.
 - o 21% report that their housing was recently at risk due to unpaid bills.
- Self-reported health status and functional ability were quite low.
- Overall, workers reported a somewhat surprising level of satisfaction and confidence:
 - o 69% assessed the workers' compensation system as at least somewhat effective.
 - o 69% were at least somewhat satisfied with the vocational rehabilitation system.
 - o 76% felt their upcoming vocational plan would assist them in returning to work.
 - o 55% were at least somewhat confident they would be able to return to work within 6 months of completing their vocational plan.
- There were only a few large or significant differences between the State Fund and self-insured subgroups (keep in mind that we surveyed relatively few in the self-insured group).

The self-insured group:

- o was less likely to have had more than one plan development referral (8% to 28%).
- o was about 7 years older on average.
- o was much more likely to have been in a union (77% to 18%).
- o worked for their employer longer before their injury (12 years compared with 5).
- o reported a higher hourly wage at the time of injury and lower current economic risk.
- o was less optimistic about their chances of returning to work or the effectiveness of the vocational plan they were about to undertake.

Note: All results presented in Exhibits A.1 and A.2 have been adjusted to the population using post-stratification weights. Wages were adjusted to January of 2008.

Key to Abbreviations	
DK	Don't know
R	Refused to answer
N/A	Not applicable
NS	Not statistically significant

Exhibit A.1 Respondent characteristics (from administrative data)

Respondent Characteristic	Full Sample	State Fund	Self-insured	p-value
Age at injury (mean years) {range: 20-63}	43.7	42.7	49.6	<.001
Adjusted monthly wages before injury	\$3,486	\$3,422	\$3,842	N/A*
Years from injury to survey (mean years) {range: 8 months-13 years}	3.2	3.2	3.2	NS
Female	25.1%	23.3%	35.0%	.03
Married	54.3%	53.9%	56.4%	NS
One or more dependents	32.9%	36.2%	15.0%	<.001
Preferred language not English	N/A	3.8%	N/A	N/A
Occupational disease	N/A	14.4%	N/A	N/A
Prior treatment for same or similar injury	N/A	22.9%	N/A	N/A
Coexisting conditions that might delay recovery	N/A	7.7%	N/A	N/A
Rural residence county	36.4%	36.1%	38.5%	NS
Distressed residence county	18.4%	17.1%	25.7%	NS
Large employer (≥ 50 FTE)	43.4%	33.2%	100%	<.001
Determined eligible for a plan more than once	24.9%	28.0%	7.6%	<.001

*This characteristic is not directly comparable across State Fund claims and self-insured claims due to differences in reporting requirements (see Data Definitions section).

Exhibit A.2 Survey responses

Survey Question	Full Sample	State Fund	Self-insured	p-value
A1. Age at survey (mean) {range: 21-67} [DK=2]	46.9	45.8	52.9	<.001
A2. Preferred or primary language				NS
English	93.0%	93.1%	92.5%	
Spanish	5.6%	5.7%	5.0%	
Other	1.4%	1.3%	2.5%	
A3. Born in U.S	89.3%	90.5%	82.5%	.03
A4. Race/ethnicity [R=1]				.005
White	82.0%	81.5%	85.0%	
Latino/Hispanic	8.4%	9.1%	5.0%	
Black/African American	1.8%	1.7%	2.5%	
Asian	2.4%	1.5%	7.5%	
American Indian/Alaska Native	4.7%	5.5%	0%	
Native Hawaiian/Pacific Islander	0.2%	0.3%	0%	
Other	0.4%	0.4%	0%	
A5. Education				NS
Grade 0-8	3.0%	3.1%	2.5%	
Grade 9-11	18.2%	19.2%	12.5%	
High school diploma or GED	41.7%	42.5%	37.5%	
College: 1-3 years	33.7%	32.6%	40.0%	
College: 4 years	3.2%	2.4%	7.5%	
Post-graduate education	0.2%	0.3%	0%	
A6. Formal apprenticeship before injury [DK=7]	28.8%	27.3%	37.5%	NS
A7. Union member when injured [DK=4]	27.2%	18.2%	76.9%	<.001
A8. Job satisfaction before injury [DK=3]				<.001
Very satisfied	64.6%	65.9%	57.5%	
Somewhat satisfied	23.3%	23.0%	25.0%	
Neither satisfied nor dissatisfied	3.7%	4.4%	0%	
Somewhat dissatisfied	4.8%	3.0%	15.0%	
Very dissatisfied	3.5%	3.7%	2.5%	
A9. Years worked for employer before injury (mean) {range: <1 month-39 years} [DK=6]	6.2	5.1	12.1	<.001

A10. Industry (used surveys if claims data missing)				<.001
Agriculture, Forestry, Fishing, Hunting	3.8%	3.1%	7.5%	
Construction, Utilities	36.4%	40.2%	15.0%	
Manufacturing	12.5%	10.7%	22.6%	
Retail/Wholesale Trade	13.2%	11.6%	22.5%	
Transportation, Warehousing	4.8%	5.0%	4.8%	
Info, Finance, Real Estate, Prof, Tech	3.9%	4.1%	2.5%	
Services: Admin, Support, Waste, Other	11.0%	11.1%	10.0%	
Education, Health Care, Social Services	10.6%	9.9%	15.0%	
Arts, Entertainment, Hospitality	3.8%	4.5%	0%	
A11. Occupation (used surveys if claims data missing)				<.001
Business, Science, Arts, Entertainment	3.9%	4.7%	0%	
Health Care	5.9%	5.6%	7.5%	
Food Prep and Service	3.7%	3.5%	5.0%	
Bldg/Grounds, Maintenance, Protective	5.1%	4.2%	10.0%	
Personal Care and Service	3.6%	3.8%	2.5%	
Sales, Office, Admin Support	6.9%	5.0%	17.5%	
Farming, Fishing, Forestry	2.0%	2.4%	0%	
Construction, Extraction	34.7%	37.8%	17.5%	
Installation, Maintenance, Repair	8.3%	8.9%	5.0%	
Production	12.5%	11.2%	20.1%	
Transportation	13.3%	13.0%	15.0%	
A12. Years in occupation before injury (mean) {range: <1 month-48 years} [DK=6]	14.9	14.6	16.4	NS
A13. Hours/week worked before injury (mean, all jobs) {range: 7-90} [DK=9]	43.6	43.9	42.1	NS
Summary:				NS
0-39 hours per week	10.4%	10.0%	12.5%	
40 hours per week	55.9%	56.0%	55.0%	
41-54 hours per week	19.9%	19.9%	20.0%	
55-90 hours per week	13.9%	14.1%	12.5%	
A14a. Adjusted hourly wages before injury (mean \$/hour, across all jobs, rough estimate) [DK=31]	\$20.53	\$20.14	\$22.65	.02
A14b. Adjusted monthly wages before injury (mean \$/month, all jobs combined, rough estimate) [DK=31]	\$3,775	\$3,720	\$4,081	NS

A15. How often do you worry that your total income will not be enough to meet your expenses and bills?				.03
Almost all the time	69.8%	72.2%	56.4%	
Often	12.5%	11.6%	17.9%	
Once in a while	9.2%	9.0%	10.3%	
Hardly ever	5.0%	4.6%	7.7%	
Never	3.5%	2.7%	7.7%	
A16. In the past 3 months, have you been contacted by a collection agency because of unpaid bills? Yes	40.7%	42.1%	32.5%	NS
A17. In the past 3 months, have you been at risk of losing your housing because of unpaid or underpaid rent or mortgage payments? Yes [N/A=5]	20.7%	22.1%	12.5%	NS
Economic risk: Summary of: A15, A16, A17				.007
Low (infrequent worry about bills, no collection agency contact, housing not at risk)	15.7%	13.6%	27.5%	
Moderate (often worries about bills OR collection agency contact OR housing at risk)	42.0%	43.3%	35.0%	
High (often worries about bills AND either collection agency contact OR housing at risk)	42.3%	43.1%	37.5%	
A18. Health status [DK=10]				NS
Excellent	1.1%	0.9%	2.5%	
Very good	5.8%	5.5%	7.5%	
Good	22.0%	21.4%	25.0%	
Fair	42.4%	42.9%	40.0%	
Poor	28.7%	29.3%	25.0%	
A19. Ability to function outside work [DK=14, R=1]				NS
Excellent	0.5%	0.6%	0%	
Very good	5.5%	5.6%	5.0%	
Good	17.5%	17.5%	17.5%	
Fair	43.4%	44.3%	32.5%	
Poor	33.1%	31.0%	45.1%	

A20. How well would you say the Washington State workers' compensation system meets the needs of injured workers? [DK=16]				NS
Very effective	20.5%	20.1%	23.1%	
Somewhat effective	48.4%	48.2%	50.0%	
Somewhat ineffective	21.1%	20.5%	24.3%	
Very ineffective	9.9%	11.2%	2.6%	
Summary: Very or somewhat ineffective	31.8%	26.9%	31.0%	NS
A21. How would you rate your overall experience with the vocational rehabilitation system so far? [DK=21]				NS
Very satisfied	31.6%	33.4%	21.7%	
Somewhat satisfied	37.0%	37.1%	36.4%	
Neither satisfied nor dissatisfied	9.5%	8.5%	14.7%	
Somewhat dissatisfied	11.2%	11.2%	10.9%	
Very dissatisfied	10.7%	9.7%	16.3%	
Summary: Very or somewhat dissatisfied	21.9%	21.0%	27.2%	NS
A22. How much of an effect do you think your vocational plan will have on your ability to return to work? [DK=32, N/A=13]				<.001
Very positive effect	38.7%	41.4%	23.8%	
Somewhat positive effect	36.9%	38.7%	26.8%	
No effect	9.9%	7.1%	25.5%	
Somewhat negative effect	4.1%	4.4%	3.0%	
Very negative effect	10.4%	8.5%	20.9%	
Summary: Very or somewhat negative effect	14.6%	12.9%	23.8%	.03
A23. How certain are you that you will return to work within 6 months after completing your vocational plan? [DK=24, N/A=7]				.004
Very certain	24.8%	27.3%	11.2%	
Somewhat certain	30.1%	30.5%	28.0%	
Neither certain nor uncertain	11.2%	10.6%	15.0%	
Somewhat uncertain	13.8%	14.3%	11.2%	
Very uncertain	20.1%	17.4%	34.6%	
Summary: Very or somewhat uncertain	33.9%	31.7%	45.8%	.03

APPENDIX B

Survey A Interview Questions

A1. What is your current age?

1. Number of years (Specify): A1age: _____(integer)
98. DON'T KNOW
99. REFUSED

A2. What is your preferred or primary language?

1. English
2. Spanish
3. Other (Specify): A2oth: _____
98. DON'T KNOW
99. REFUSED

A3. Were you born in the United States?

1. Yes
2. No
98. DON'T KNOW
99. REFUSED

A4. Which one or more of the following would you use to describe yourself...[READ LIST] [CHECK ALL THAT APPLY]

1. White?
2. Latino/Hispanic/Mexican American?
3. Black or African American?
4. Asian?
5. American Indian or Alaska Native?
6. Native Hawaiian or other Pacific Islander?
7. Something else? (Please specify): A4oth: _____
98. DON'T KNOW
99. REFUSED

READ: When I refer to your injury during this survey, I'm thinking of the injury or occupational illness that led to your most recent referral for vocational rehabilitation services. Now please think back to when you were injured. The next few questions refer to that time.

A5. What is the highest grade or year of school you had completed before your injury? [READ LIST IF NEEDED]

1. Grade 0-8 or less (less than high school/grade 9)
2. Grades 9-11 (some high school)
3. Grade 12 or GED (high school graduate)
4. College 1-3 yrs (some college, technical school, AA degree)
5. College graduate (4 years of college, BA, BS)
6. Post-graduate work or degree (MA, Master's, MD, JD, PHD, etc)
98. DON'T KNOW
99. REFUSED

A6. Aside from your formal education, had you completed a formal apprenticeship program before your injury? [IF NEEDED: This refers to an apprenticeship program approved by the Apprenticeship Council. Apprenticeship is a combination of on-the-job training and related classroom instruction under the supervision of a journey-level craft person or trade professional in which workers learn the practical and theoretical aspects of a highly skilled occupation.] [NOTE: There are many apprenticeship programs, including: accounts payable clerk, cook, library technician, etc. For a list of approved programs, see <http://www.lni.wa.gov/TradesLicensing/Apprenticeship/Programs/TradeDescrip/default.asp>]

1. Yes
2. No

98. DON'T KNOW
99. REFUSED

A7. Were you a member of a union at the time of your injury?

1. Yes
2. No

98. DON'T KNOW
99. REFUSED

A8. Please think about the job where you were injured. Overall, how would you rate your job satisfaction before you were injured? Would you say you were

1. Very satisfied
2. Somewhat satisfied
3. Neither satisfied nor dissatisfied
4. Somewhat dissatisfied
5. Or very dissatisfied

98. DON'T KNOW
99. REFUSED

A9. How long had you worked for that particular employer before you were injured? [IF NEEDED: This question refers to the job where you were injured.]

A9D: ___ # days
A9W: ___ # weeks
A9M: ___ # months
A9Y: ___ # years

98. DON'T KNOW
99. REFUSED

A10. Thinking about the job where you were injured, what was the nature of the business or company? [PROMPT for enough detail to clarify exact occupation and assign a specific industry code.]

1. Nature of business/industry (Specify): A10ind: _____(list only one)

98. DON'T KNOW
99. REFUSED

A11. What kind of work did you do there? What was your occupation? [IF NEEDED: If you did several kinds of work for this employer, please name your primary occupation.] [PROMPT for enough detail to assign a specific occupation code.]

1. Occupation (Specify): A11occ: _____(list only one)

98. DON'T KNOW
99. REFUSED

A12. How long had you worked in that occupation at the time of your injury, with any employer?

A12D: ___ # days

A12W: ___ # weeks

A12M: ___ # months

A12Y: ___ # years

98. DON'T KNOW

99. REFUSED

A13. Now please think about the 4 weeks before you were injured. On average, about how many hours per week did you work for pay, at all your jobs combined? This includes paid vacation hours. [NOTE: If a range is given, prompt for average]

1. Hours per week (Specify): A13H: _____(integer)

98. DON'T KNOW

99. REFUSED

A14. Again thinking about the 4 weeks before you were injured, approximately how much were you earning from all of your jobs combined, before taxes and other deductions? Please include all tips, bonuses, overtime pay and commissions in your estimate. Please tell me both the dollar amount and the amount of time the dollar amount covers. [IF NEEDED: You can tell me an hourly, weekly, bimonthly, monthly, or yearly amount, whichever makes it easiest for you to give a dollar amount. If you get paid using different time scales for different jobs, you can tell me the amounts for each time scale separately.] [NOTE TO INTERVIEWER: All amounts entered will be added together on the proper scale, please DO NOT enter the same payments using two different time scales.]

A14H: ___ \$ per hour

A14W: ___ \$ per week

A14T: ___ \$ per 2 weeks/every other week

A14B: ___ \$ bimonthly/twice per month

A14M: ___ \$ per month

A14Y: ___ \$ per year

98. DON'T KNOW

99. REFUSED

A15. Now please think about your financial situation today. How often do you worry that your total income will not be enough to meet your expenses and bills? Would you say

1. Almost all the time

2. Often

3. Once in a while

4. Hardly ever

5. Or never?

98. DON'T KNOW

99. REFUSED

A16. In the past 3 months, have you been contacted by a collection agency because of unpaid bills?

1. Yes

2. No

98. DON'T KNOW

99. REFUSED

- A17. In the past 3 months, have you been at risk of losing your housing because of unpaid or underpaid rent or mortgage payments?
1. Yes
 2. No
 3. NOT APPLICABLE (e.g., not responsible for own housing costs)
 98. DON'T KNOW
 99. REFUSED
- A18. Now please think about how you're doing today. In general, would you say your health is excellent, very good, good, fair, or poor?
1. Excellent
 2. Very good
 3. Good
 4. Fair
 5. Poor
 98. DON'T KNOW
 99. REFUSED
- A19. Would you say your current ability to function outside of work is excellent, very good, good, fair, or poor?
1. Excellent
 2. Very good
 3. Good
 4. Fair
 5. Poor
 98. DON'T KNOW
 99. REFUSED
- A20. Thinking about the big picture, how well would you say the Washington State workers' compensation system meets the needs of injured workers? Would you say the workers' compensation system is
1. Very effective
 2. Somewhat effective
 3. Somewhat ineffective
 4. Or very ineffective
 98. DON'T KNOW
 99. REFUSED
- A21. How would you rate your overall experience with the vocational rehabilitation system so far? Would you say you were
1. Very satisfied
 2. Somewhat satisfied
 3. Neither satisfied nor dissatisfied
 4. Somewhat dissatisfied
 5. Or very dissatisfied
 98. DON'T KNOW
 99. REFUSED

A22. Now please think about the future and about the vocational plan being developed for you. How much of an effect do you think your vocational plan will have on your ability to return to work?

Would you say your vocational plan is likely to have a

1. Very positive effect on your ability to return to work
2. A somewhat positive effect
3. No effect
4. A somewhat negative effect
5. Or a very negative effect on your ability to return to work?

96. N/A: VOCATIONAL PLAN WILL NOT BE DEVELOPED/COMPLETED

98. DON'T KNOW

99. REFUSED

A23. How certain are you that you will return to work within 6 months after completing your vocational plan? [NOTE: This refers to physical condition, job availability, etc.; any factors the worker thinks will affect their return to work.]

1. Very certain
2. Somewhat certain
3. Neither certain nor uncertain
4. Somewhat uncertain
5. Very uncertain

96. N/A: VOCATIONAL PLAN WILL NOT BE DEVELOPED/COMPLETED

98. DON'T KNOW

99. REFUSED

APPENDIX C

Sources Used in Survey Question Development

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