



PROFESSIONAL DEVELOPMENT

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2015 *Work Environment Survey* (WES) Cycle

Background

Professional Development is an area in which very little work has been done linking self-reports of employees' experiences with hard data tracking participation in various learning programs. And yet, feedback from employees via the *Work Environment Survey* (WES) suggests there is room for improvement. In fact, the Professional Development driver scored four points lower in the 2015 WES cycle compared to a high of 66 points in 2008. The comment themes also point to a need to look at supporting employees with improving training & development opportunities as the top sub-theme. There is a need to evaluate the return on investment of various initiatives targeting Professional Development and Engagement.

Research Questions

This analysis links data collected from the 2015 *Work Environment Survey* (WES) cycle with existing administrative data to evaluate the relationship between training programs and incentives and Professional Development and Engagement by exploring the following research questions:

1. Are greater training expenditures per capita associated with higher Engagement and more favourable Professional Development experiences?
2. Do supervisors who participated in the Supervisory Certificate Development Program have more positive Engagement compared to those who did not take the program? Are their results on the Supervisory-Level Management driver more favourable than others?
3. What is the relationship between employees' participation in the Pacific Leaders Scholarships for Public Servants program and their WES scores?
4. What is the return on investment of coaching in terms of the WES Engagement and driver scores?

The key findings from these research questions will be discussed in turn.

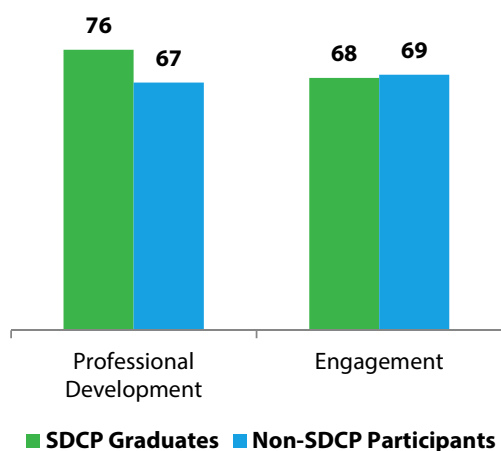
Key Findings

1. Are greater training expenditures per capita associated with higher Engagement and more favourable Professional Development experiences?

Annual spending on training (excluding the Pacific Leaders Scholarship) per full time employee (FTE) was calculated by ministry over the past three fiscal years (2012/13 to 2014/15). The average spending per FTE over these years was then compared with ministry Engagement and Professional Development scores from the 2015 WES. Officers of the legislature were excluded from this analysis as only Elections BC and Office of the Ombudsperson completed the survey. Responses from Environment and Environmental Assessment Office were combined as well as those from Attorney General and Public Safety and Solicitor General to match the spending data available. In total, 18 ministries were used in the comparison and no correlation was found between the average annual spending per FTE in each ministry and Engagement and Professional Development scores.¹

2. Do supervisors who participated in the Supervisory Certificate Development Program have more positive Engagement compared to those who did not take the program? Are their results on the Supervisory-Level Management driver more favourable than others?

Average Score
(Out of 100 points)



There were 69 supervisors who graduated from the Supervisory Certificate Development Program (SDCP) with start dates from 2011 to 2013 and were in scope for the 2015 WES with responding direct reports. A sample of supervisors not in the program was selected as a comparison group, controlling for union status and ministry. The average Engagement scores for both groups differed by only one point, suggesting the program had no effect on the graduates' current Engagement scores. However graduates of the program had significantly higher Professional Development results compared to non-SDCP participants.²

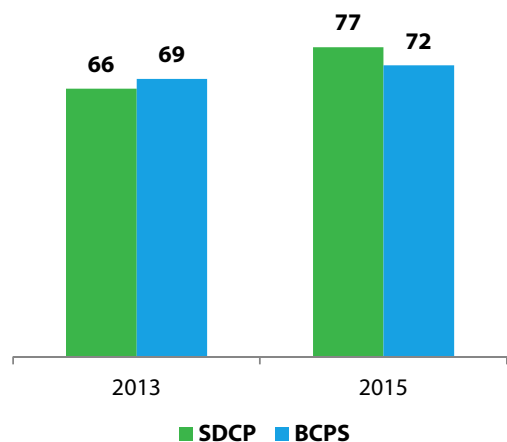
To further investigate the impact of the SDCP, supervisors' average 2015 Supervisory-Level Management scores were compared between these two groups. Supervisors who were not involved in the program had an average score two points higher (76 out of 100) compared to those who graduated from the program (74 out of 100).³ One possible explanation for this trend is that the supervisors may have entered the program because they were receiving below average Supervisory-Level Management scores.

¹ A bivariate correlation is used to test a relationship between two variables. Correlation coefficients range from -1 to +1, where -1 represents a perfect negative relationship, and +1 represents a perfect positive relationship. Correlations with an absolute value from 0.20 through 0.39 are interpreted as *weak*. The correlation coefficient (*r*) between average spending per FTE and Engagement equals 0.071 and between average spending per FTE and Professional Development equals 0.007.

² Score difference is statistically significant based on an independent t-test comparison of means ($p < 0.05$).

³ Differences were not statistically significant.

Average Score
(Out of 100 points)



To test this theory, supervisors from the program were tracked over time. In the interest of a sufficient sample size, graduates with start dates in 2012 were chosen for this analysis. In 2011, the majority of them were not supervisors and hence did not have Supervisory-Level Management results. Instead, the 2013 results of 29 supervisors (who would have been in the program for at most one year) were compared to their 2015 results.⁴ Supervisory-Level Management scores for these supervisors increased by 11 points from 2013 to 2015, whereas scores for the BC Public Service increased by only three points.⁵ This suggests the program has a positive impact on perceptions of Supervisory-Level Management; however, caution should be used when comparing these differences as the SDCP sample size is drastically smaller than the BCPS.

3. What is the relationship between employees' participation in the Pacific Leaders Scholarships for Public Servants program and their WES scores?

Across the BC Public Service, employees have access to scholarships of up to \$7,500 to cover at least 75% of tuition and books for programs aligned with government's current and future skill needs. To explore whether participation in this program resulted in more favourable WES scores two groups, all of whom had completed the WES in both 2011 and 2013 cycles or in both 2013 and 2015 cycles, were investigated. The first group, Pacific Leaders Scholarship (PL) participants, consisted of employees with initial intake dates after WES 2011, but before WES 2015. Baseline driver scores for this group were compared to driver scores from the following WES cycle after joining the program (2013 or 2015 depending on their initial intake date). The second group, non-PL participants consisted of two samples taken from employees with no record of a Pacific Leaders Scholarship. For the second group to be comparable to the first, one sample was selected from employees who completed both the 2011 and 2013 WES, using 2011 scores as their baseline, and the second was selected from employees who completed both the 2013 and 2015 WES, using 2013 scores as their baseline.

Key demographic proportions for both groups were compared. There were some significant differences in the composition of PL participants in terms of gender, age and service years with higher proportions of woman, employees less than 44, and employees with less than 10 service years. A significantly higher proportion of PL participants also fell within the Victoria city group.

⁴ The Supervisory-Level Management driver was refined in 2015 compared to 2013. Caution is advised when comparing these scores across years.

⁵ Supervisory-Level Management score difference is statistically significant based on a paired t-test comparison of means ($p < 0.05$).

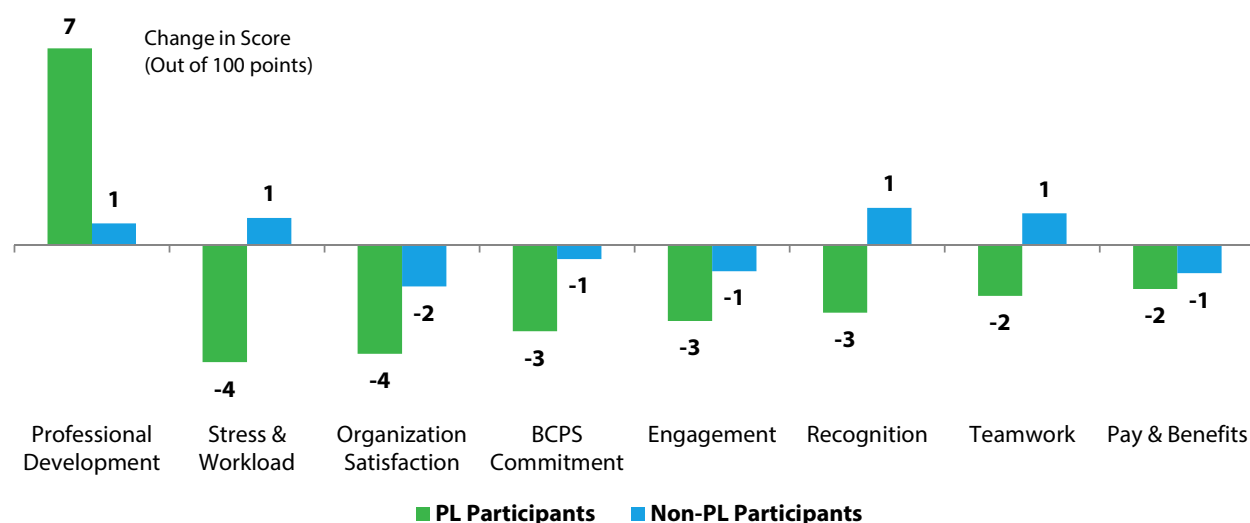
Characteristic	Sub-groups	PL Participants	Non-PL Participants
Gender			
	Female	76%*	59%
	Male	24%	41%*
Age Group			
	Less than 35 years	42%*	12%
	35-44 years	36%*	27%
	45-54 years	19%	40%*
	55 years or more	2%	21%*
Status			
	Excluded	22%	21%
	Included	78%	79%
Job Classification Group			
	Admin & Operations	29%	29%
	Management	15%	16%
	Senior Admin & Professionals	55%	56%
Service Years			
	Less than 3	41%*	16%
	3 to <10	37%*	31%
	10 to <20	17%	29%*
	20 or more	5%	24%*
City Group			
	Victoria	50%*	39%
	Vancouver	30%	26%
	Other	20%	34%*
Total Count		627	627

* Proportion is significantly higher than other group proportion based on Chi Square tests, with $p < 0.05$.

Paired t-tests were run on 17⁶ WES driver scores comparing baseline scores with scores from the following WES cycle. Eight drivers showed significant change from their baseline scores for PL participants, and not for the non-PL participant sample group.⁷ There was a substantial increase in Professional Development scores for PL participants, however all other driver scores decreased. These findings suggest that while perceptions of Professional Development become more positive over time, impressions of the remainder of their work environment were less favourable.

⁶ The Tools & Workspace driver and Supervisory-Level Management driver were refined in 2015. Corresponding 2011 and 2013 scores could not be calculated as some of the underlying questions were new to WES2015. The Job Suitability driver was calculated for 2011 as the two underlying questions had been asked in 2011. The Pay & Benefits driver was re-calculated for 2011, based on the 2013/15 composition.

⁷ Score differences are statistically significant based on an independent t-test comparison of means ($p < 0.05$).



4. What is the return on investment of coaching in terms of the WES Engagement and driver scores?

2015 WES respondents were split into three groups: recent coaching participants who received some form of coaching which started and ended between September 15, 2014 and September 15, 2015 (562 respondents); Past coaching participants who received coaching prior to September 15, 2014 (1682 respondents); and non-coaching participants (17,362 respondents).⁸ Demographic proportions amongst these three groups were compared. As to be expected, recent and prior coaching participants had similar demographic proportions. When these groups were compared to non-coaching participants, higher proportions of management, employees with excluded union status, and employees from Victoria were seen. A lower proportion of employees with fewer than three service years existed among coaching participants compared to non-coaching participants.

Characteristic	Sub-groups	Coaching Participants	Non-Coaching Participants
Gender			
	Female	69%*	60%
	Male	31%	40%*
Age Group			
	Less than 35 years	9%	18%*
	35-44 years	28%*	24%
	45-54 years	41%*	34%
	55 years or more	22%	24%*
Status			
	Excluded	47%*	21%
	Included	53%	79%*

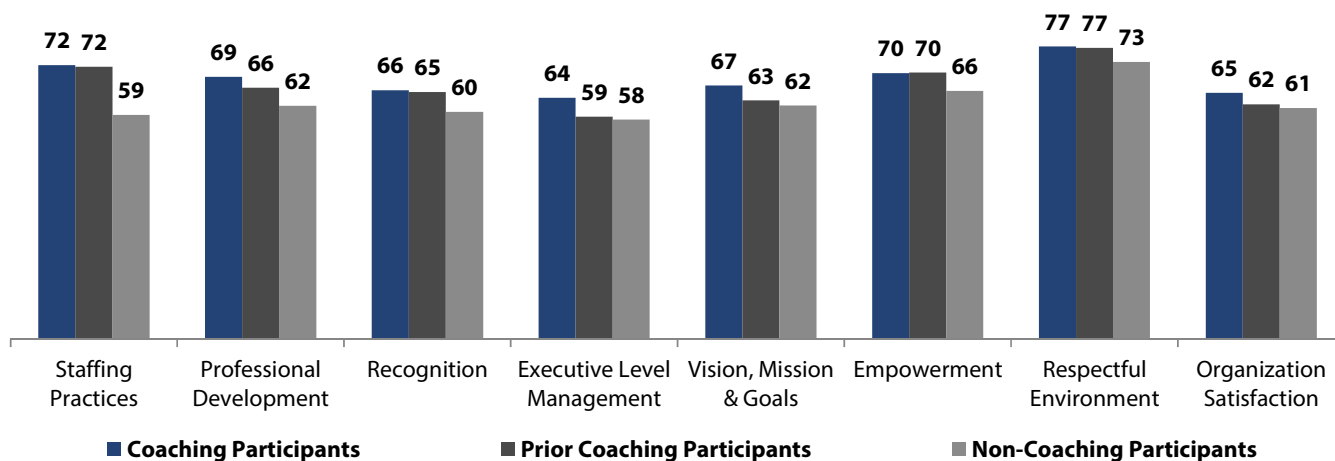
⁸ Employees who received some form of coaching which did not end by September 15, 2015 were excluded from analysis (150 respondents)

Characteristic	Sub-groups	Coaching Participants	Non-Coaching Participants
Job Classification Group			
	Admin & Operations	11%	29%*
	Management	43%*	16%
	Senior Admin & Professionals	46%	55%*
Service Years			
	Less than 3	2%	16%*
	3 to <10	41%*	35%
	10 to <20	28%*	23%
	20 or more	30%*	26%
City Group			
	Victoria	54%*	39%
	Vancouver	15%	25%*
	Other	31%	35%*
Total Count		2,244	17,362

* Proportion is significantly higher than other group proportion based on Chi Square tests, with $p < 0.05$.

Coaching had the largest impact on perceptions of Staffing Practices and Professional Development.⁹

Average Score
(Out of 100 points)



To compare the driver scores among these groups, a sample of 562 non-coaching participants who responded to WES was selected. The demographics of the sample group were comparable to the total non-coaching participant population. In general driver scores were highest for the recent coaching participant group and lowest for the non-coaching participant group. The largest differences were seen amongst Staffing Practices and Professional Development; however there was not a significant difference in Engagement between recent coaching and non-coaching participants.

⁹ Score differences between recent coaching and non-coaching participants are statistically significant based on ANOVA comparisons of means ($p < 0.05$)

Conclusions

All three initiatives explored, Supervisory Development Certificate Program, Pacific Leaders Scholarship Program and coaching, were associated with more favourable impressions of Professional Development even though no relationship between training expenditures and Engagement and Professional Development were found. Furthermore, SDCP participants saw improved Supervisory-Level Management rankings from their direct reports between 2013 and 2015 and coaching participants had higher driver scores in eight areas compared to non-coaching participants.

Some drawbacks were seen amongst PL participants compared to a sample of non-PL participants. While perceptions of Professional Development became more positive over time, impressions in other areas like Stress & Workload and Organization Satisfaction were less favourable. This is consistent with previous research that illustrated the positive effects on Professional Development as well as the negative effects in other areas.¹⁰

The results of this analysis showed that there was little impact on Engagement scores for graduates of the SDCP and coaching participants, and a slightly negative impact on Engagement for PL participants. All of the results from this analysis should be used with caution as there were significant differences in key demographic proportions between the comparison groups and the coaching and PL participant groups. Analysis was also limited by sample size.

¹⁰ BC Stats (2014). *Determine if there is a difference in work environment experiences between employees who received a Pacific leader Scholarship and those who have not*. Summary prepared for the BC Public Service Agency.