



THE NATIONAL
RESEARCH INSTITUTE
PAPUA NEW GUINEA

DISCUSSION PAPER

THE CONTRIBUTION OF
“PRECINCT” TRAINING TO
ETHICAL AND VALUES-BASED
LEADERSHIP IN PAPUA NEW
GUINEA PUBLIC SERVICE:
EMPIRICAL EVIDENCE FROM A
TRACER SURVEY

Francis Odhuno
Eugene E. Ezebilo
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Table of Contents

Abstract	v
Introduction	1
Literature review	3
Methods	5
Participants and sample	5
Measuring ethical and values-based leadership traits	5
Measuring Precinct leadership training course/program	6
Estimation method	7
Results	8
Summary statistics of the data	8
Empirical results 1: Baseline specification	8
Empirical results 2: Alternative specification	8
Empirical results 3: Robustness check	11
Discussion	15
Conclusion	17
Concluding comments	17
Practical policy implications	17
Research limitations and way forward	17
References	18
Appendix	20

List of Charts, Figures and Tables

List of Tables

Table 1: Summary statistics of variables used in statistical analysis	9
Table 2: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service	10
Table 3: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service	12
Table 4a: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service: Ethical leadership traits	13
Table 4b: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service: Values-based leadership traits	14
Table A1: Precinct course/Program classification	20
Table A2: No. of participants taught by training service provider	21
Table A3: Distribution of respondents by level of Government agency worked for	21
Table A4: Distribution of respondents by job level at time of attending course	21
Table A5: Distribution of respondents by province	22
Table A6: Distribution of respondents by type of job	22

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Authors' contribution

The first author conceived and designed the project, contributed to the design of data collection instruments, analysed the data and provided the econometric estimates, wrote the first draft and contributed to subsequent revision of all parts of the paper.

The second author contributed to the review of the literature and subsequent revisions of all parts of the paper.

The third author contributed to the writing of the introduction and part of the literature review in the paper.

Abbreviations and Acronyms

PILAG	Pacific Institute of Leadership and Governance
PNG	Papua New Guinea
PNGAusPartnership	PNG-Australia Partnership
UQ	University of Queensland

Abstract

The problem of ethics and lack of values-based cultures within public sector organisations has, for many years, been blamed for inefficient and ineffective public sector in most developing countries. It has been suggested, therefore, that training developing country public servants on ethics and values-based leadership could improve both their ethics and capability that are necessary for improving public sector performance. We use data from a Tracer survey to assess whether the delivery of ethics and leadership courses to Papua New Guinea (PNG) public servants made a difference in the ethical behaviours of beneficiaries of an Australian Government-supported intervention in PNG. We employ binary logistic regression model to compare the outcomes (in terms of demonstrating six ethical values: honesty, integrity, accountability, respect, wisdom, and responsibility in the workplace) for public servants who did, with their counterparts who did not, take part in ethics and leadership courses. We found that there was no significant relationship between taking ethics and leadership courses and demonstrating any of the six ethics and values-based leadership traits among PNG public servants. This suggests that practising ethics and values-based leadership in the workplace may not be different between participants who completed ethics and leadership courses and those who did not. Some PNG public servants can, however, demonstrate integrity, respect, and responsibility if they believe that they learnt something new, not necessarily from the ethics and values-based leadership courses, that helped them to implement parts of the Ethics and Values-based Executive Leadership and Management Capability Framework. In general, taking ethics and leadership courses does not seem to be a determining factor in public servants' demonstration of ethical leadership traits. Instead, some public servants are able to consistently demonstrate integrity and respect without attending ethics and leadership courses. The implication is that PNG public servants could be facing barriers to the extent that ethics and values-based leadership training alone may not be sufficient for inculcating individuals ethical behaviours, or for building ethics and values-based cultures within their workplaces. Some options for improving and/or supplementing and assessing the impact of future ethical leadership training or similar interventions are suggested.

Introduction

Public servants are central to effective governance in developing countries. They deliver essential services to the citizens, commission large-scale infrastructure projects, regulate economic activity, and engage in diplomacy with foreign countries (Meyer-Sahling, et al., 2018). Yet, in some of these developing countries, civil servants do not take on their roles effectively – instead, developing country civil services are marked by service delivery failures and corruption (Meyer-Sahling, et al., 2018). Hence, it is generally perceived that corruption in the public sector is one of the biggest threats to development and progress in most developing countries (Hardoon and Heinrich, 2013; Ezebilo et al., 2019), including Papua New Guinea (PNG) (Kavan, et al., 2019). While corruption in PNG is believed to be more endemic in the political system, it is also believed that the practice has been passed down to the bureaucratic system which is affecting service delivery at the national and sub-national levels (Walton, 2009; 2015). All levels of the PNG public service have therefore, been subjected to criticism for their inefficiency, which is often blamed on corruption, nepotism and other negative connotations.

Stealing public funds; abusing office to their advantages; giving jobs away to unqualified family members; giving and receiving bribes (favour) in return of service and breaking rules etc., often results in poor public service delivery in PNG (Ezebilo et al., 2019). Such practices of incivility in the workplace (Andersson and Pearson, 1999) are fuelled by the country's 'wantokism' culture, which has been identified as one of the fundamental links to corrupt the state, as loyalty to 'wantoks' are stronger in PNG than loyalty to the state (Dinen, 1997; Walton, 2016). It has been observed, in particular, that some PNG public servants do not always follow the established procedures in doing their duties, thereby, allowing enormous payout linked to bogus claims against the state (Webster, 2010). These endemic incivility in the workplace have heightened the need for a more systematic attention to the ethical behaviour among PNG public servants. There has, therefore, been calls for public service reforms with greater emphasis on professional and ethical responsibilities among public servants. Nita (2006), for example, argued that good governance can be facilitated through institutional reforms as well as recognising the need for developing an effective skills base, transparency, and accountability.

Since citizens demand that the government must be made more accountable for what they achieve with taxpayers' money (Currstine, 2005), the PNG Government has been taking major reforms in, for example, its Public Finance Management arrangements to restore trust, accountability, and transparency in the PNG public sector (Department of National Planning and Monitoring, 2018). Other complementary initiatives have also been or are being undertaken to rectify incivility in the PNG public service. In 2013, for example, the government of PNG unveiled its Ethics and Values-Based Executive Leadership and Management Capability Framework which was aimed at encouraging public service employees to embrace six core values: Honesty, Integrity, Accountability, Respect, Wisdom, and Responsibility (Department of Personnel Management et al., 2013; Quality and Technical Assurance Group, 2019). With this, the government aims to instill ethical, effective and efficient leadership capabilities needed for an efficient and effective public service delivery to the people of PNG.

In order to facilitate these efforts of the PNG Government, the PNG-Australia Partnership (PNGAusPartnership) has been supporting the partnership between the governments of PNG and Australia to educate and train emerging and future PNG leaders and public servants to understand the ethical significance of the work they do in their professions. One of the leading programs supported by the PNGAusPartnership was the Pacific Leadership and Governance Precinct (The Precinct) program (Quality and Technical Assurance Group, 2019). The Precinct supported two PNG institutions; the University of Papua New Guinea School of Business and Public Policy and the Pacific Institute of Leadership and Governance (PILAG). The work of these two institutions was complemented through a Precinct Leadership Program, implemented by the University of Queensland (UQ), and other service providers. PILAG collaborated with UQ and other trainers to deliver the Precinct

Leadership program and other complementary courses to PNG public servants at the national and sub-national levels. It is believed that through these collaborative arrangements, PILAG benefited from high quality support from Australian organisations which use good practice in adult learning methodologies (Quality and Technical Assurance Group, 2019).

Between 2015 and 2020, over 2,000 PNG public servants benefited from both long and short-term courses delivered through the Precinct program. The courses covered public policy, leadership and management, and core public-service skills. The goal of the Precinct was to support the efforts of the PNG Government to grow a [new and existing] generation of ethical public service leaders, both women and men, capable and motivated to collaborate, lead and manage the delivery of equitable and inclusive government services. The overarching assumption was that PNG's long-term development needs to be led by well-informed PNG leaders, both male and female, with critical and analytical skills to address the country's current and future economic and policy challenges (Quality and Technical Assurance Group, 2019). The Precinct training program is therefore, one of the approaches being used to develop this caliber of PNG public servants, with the expectation that the training would improve both their ethics and capability over the medium term.

We aim to empirically investigate whether these Precinct courses have had an impact on ethical and values-based leadership capability practiced by public servants upon returning to work after completing the training program. The hypotheses are that: (1) public officials who received ethics and leadership training at the Precinct should demonstrate greater ethical and values-based leadership compared to their counterparts who did not participate in such ethics and values-based leadership training; and, (2) the Precinct leadership training program should have positive effect on participants' tendency to demonstrate ethical and values-based leadership.

Empirical evidence on the effectiveness of the Precinct leadership training program is currently needed for two main reasons. First, the Precinct leadership program has been running since 2015 but, to the best of our knowledge, its effectiveness has not previously been empirically evaluated. We therefore, hope to provide evidence on whether the participants, and the Public Service sections to which they return after training, have benefited from the Precinct programs, with specific reference to the six core values of the Public Service Leadership Capability Framework. Second, we are indirectly answering the question: To what extent is the Government of Australia's investment in the Precinct program contributing to the desired outcomes (Quality and Technical Assurance Group, 2019:11)? We do not put monetary value of the investment in our analysis. But the methodological approach used is still informative in evaluating projects that the Australian Government has been supporting in PNG so as to better understand what has worked more or less during the Precinct implementation, as well as reasons for variation in expected outcome. Thus, by uncovering more realistic program outcomes, the empirical finding from the study can be useful for informing policymakers and training institutions with evidence that should provide the basis for improvement or strengthening of programs similar to the Precinct Leadership Program.

The rest of the paper is organised as follows: Section 2 reviews the existing evidence on the effects of education and training on personality traits and discusses how the Precinct's ethics and values-based leadership training may affect personality traits; Section 3 presents the data and the estimation strategy; Section 4 reports our results of the impact of ethics and values-based leadership training on six personality traits: honesty, integrity, accountability, respect, wisdom, and responsibility; Section 5 discusses the results; and, Section 6 contains concluding comments and recommendation.

Literature review

Our study is within the scope of investment payoff literature (Kohli and Devaraj, 2003) that analyses the direct and indirect impacts of investment programs. It is especially in the spirit of Meyer-Sahling et al. (2018) who assessed the effects of a range of civil service management practices – from recruitment to promotion, pay and performance management practices – on civil servants' attitudes and behaviours which are core to civil service effectiveness. The Meyer-Sahling et al. (2018) study covered six important outcomes: work motivation, job satisfaction, public service motivation, commitment to remain in the public sector, performance and integrity. They showed that civil servants who score highly in one attitude or behaviour often do not do so in another, suggesting that public servants can have strengths in some dimensions of civil servant behaviours and attitudes, while having weakness in others.

Several studies have focused on the effects of ethics training on ethical and values-based leadership. However, findings from these studies have been mixed. Some authors found that training in ethics increases the practice of ethical behaviours. In a study of the effectiveness of ethics education on enhancing individuals' knowledge of the responsible conduct of research practices and their level of moral reasoning, May and Luth (2013) found that ethics training improves participants' moral efficacy and moral courage. Standalone courses in ethics were not superior to embedded modules in influencing moral efficacy and moral knowledge. May et al. (2014) found, in their study of the influence of a business ethics course on participants' behaviour, that participants experienced significant positive increases in moral efficacy, moral meaningfulness and moral courage. In a study of businesspersons' perceptions of ethics training, Valentine and Fleischman (2004) found that the training improves businesspersons' desirable ethical behaviours. In a study of the impact of business ethics course on students, Wu (2003) found that at the completion of the course, Taiwanese students improved in the ethical weighting of their individual values, their recognition of ethical issues and their performance as ethical decision-makers.

Lowery et al. (2014) also found a positive effect of ethical training on ethical behaviour. In a study of the influence of spirituality, demographic and ethical training on ethical behaviour, they found that ethical training had a significant positive effect on perceptions of workplace ethics. In a study of the influence of education and training on work attitudes by Liang et al. (2014), they found that training had positive effects on work attitudes. The training of managerial ability had the most significant influence. Weber (1990) found that students' ethical awareness or reasoning skills improved after taking courses in business ethics. Abrell et al. (2011) found that employees' leadership performance and organisational citizenship behaviour improved after taking a leadership development training program in Germany. In terms of the relationship between gender and business ethics, Wang and Calvano (2015) found that women are more inclined to act more ethically than men. However, men may be more responsive to business ethics education than women. Women's personal ethical orientations may become more relativistic after taking a business ethics course. Atakan et al. (2008) found that men and women perceive ethical issues differently. Hellmann et al. (2017), in a study of the efficacy of a leadership development programme on a group of Pharmacy students, found that participants experienced an improvement in leadership skills, increase in confidence as a leader, and an increase in time devoted for leadership activities. In a study of civil servant management in developing countries, Meyer-Sahling et al. (2018) concluded that training in ethics will result in a more motivated, committed, satisfied, and ethical civil servants.

Some studies that have questioned the importance of ethical training on desirable ethical behaviour include Jewe (2008) who found that the completion of a business ethics course has no significant effect on a student's ethical attitudes. Lampe and Engleman-Lampe (2012) corroborated this in their study of mindfulness-based business ethics education. They concluded that despite the ethical training, business students still had the highest rate of cheating among college students. In an evaluation of compulsory ethics education and moral development of salespeople, Izzo (2000) concluded that training employees on ethics does not necessarily result in an improvement in desirable ethical behaviours. In a methodological study on the methods that can be used to implement an ethical code of conduct and employee attitudes, Adam and Rachman-Moore (2004) found

that providing employees a course on ethics does not necessarily improve their ethical conduct and ethical attitudes. However, Lowery et al. (2014) suggested that training in codes of ethics could reduce uncertainty with employees and contributes to professionalism and more relevant actions or acceptable behaviours.

A number of other studies have compared behavioural responses of different sub-populations to ethics education. Martin (1982) analysed a two-term philosophy course in ethics and compared the response of business students and non-business students. The results showed that students' responses were largely similar to issues of "not okay" behaviour. Hence, students subject background does not make a difference when it comes to ethical behaviour. But this finding is not universal. Boyd (1982), comparing the responses of business students and those students of quantitative methods, noted that business students demonstrated improvement in their moral reasoning, while students of quantitative methods did not. In the same vein, Arlow and Ulrich (1983) assessed the impact of a business and society course on different groups of business students. They noted that accounting students demonstrated higher scores than other business students – a result they attributed to the fact that accounting students often receive additional training in accounting ethics within the accounting curriculum.

Methods

We conducted an empirical study using data from a sample of 273 public servants across the 22 provinces of PNG. The data was collected as part of a Tracer study, among other objectives, to provide evidence of the extent to which the Precinct training program contributed to the development of ethical and values-based leadership in the PNG public service. We describe the data, core variables and the estimated model in the paragraphs that follow.

Participants and sample

The target population of 2,061 for this study were the 2015-2020 cohorts of Precinct graduates who are current public servants across the 22 provinces of PNG. The Tracer survey, which was conducted with authorisation of the PNG Government departments of Personnel Management, and Higher Education Research Science and Technology, was independently administered by a contracted private consulting firm. The data collection was informed by a comprehensive approach to research ethics that ensured participants were able to fully participate with informed consent, while managing risk and protecting their identities. A stratified sampling process, which allowed for purposeful representation from across the Precinct activities, with attention to social inclusion; multiple graduates from the same cohorts; graduates returning to subnational areas; and those graduates having had multiple inputs from different Precinct activities, was used.

A pilot survey targeted 57 participants, but only 29 (50.9%) responded to it. After the necessary adjustment to the questionnaire, the online survey was sent to all participants' contact email addresses in order to maximise participants' engagement with the study. 891 emails (43.2%) were undeliverable, 777 participants (37.7%) did not open their emails while a further 54 (2.6%) people unsubscribed from the online survey. These limitations stemmed from the Precinct not having all participants' active mobile phone numbers and/or email addresses, closed email accounts, email servers of public sector agencies experiencing accessibility issues, and the COVID-19 pandemic resulting in some participants' inability to complete surveys due to office closures or shift-work arrangements. The 54 potential participants who unsubscribed from the online survey were not traced. Hence, their reasons for opting out are not known. But, since participating in the study was voluntary, it is prudent to assume that these people opted not to participate in the Tracer study.

The remaining 339 graduates (16.4%) were traced. However, only 191 (56.3%) of the targeted graduates successfully responded to the survey online. The 148 graduates (43.7%) who did not respond to the online survey were traced, but only 82 (55.4%) were interviewed by telephone. These Tracer survey data were supplemented with administrative data obtained from the government agencies that employed the respondents. A final sample of $N=273$, comprising of 55 percent males and 45 percent females, was obtained after excluding respondents who did not answer one or more of the survey questions, or whose administrative information required for this study were missing.

Measuring ethical and values-based leadership traits

To examine the impact of the Precinct training on practicing ethical and values-based leadership, the respondents were asked to self-rate their demonstration of values (honesty; integrity; accountability; respect; wisdom and responsibility) as a result of the program on a 4-point scale: Consistently demonstrate=1; Regularly demonstrate =2; Occasionally demonstrate =3; Not able to demonstrate=4, the core values. Fifty-eight percent of the respondents believed that they consistently demonstrated the core values; 34 percent believed that they regularly demonstrated the core values; 7 percent believed that they occasionally demonstrated the core values; and only 1 percent of the respondents believed that they are not able to demonstrate the core values upon their return to the workplaces.

Clearly, the response is skewed towards consistently and regularly demonstrating ethical and values-based leadership and management, resulting in only 8 percent of the respondents who are either not able to

demonstrate the values or demonstrate the values only occasionally. This bias in the sample would be transmitted to the parameter estimates. Therefore, to avoid estimation bias, the 4-point scale responses to each of the values were normalised along the scale 0–1 to indicate the average difference between respondents who consistently demonstrate strong practice of the core values and those that can only demonstrate practising these values to some extent, or unable to demonstrate the values. We therefore, measured the ethical and values-based leadership variable with coding 1=consistently practising the ethics and values and 0=not consistently practising ethics and values, to analyse the data.

There are also other reasons for collapsing public servants' responses to questions regarding these core values into 0-1 dichotomy. The first is that perception about corrupt practices in the PNG public sector continue to raise concerns about whether public servants really uphold these core values. The second, related to the first, is that the Ethics and Values-Based Executive Leadership and Management Capability Framework has strict requirement for upholding these core values. According to the Department of Personnel Management et al. (2013), these values are not only important from an ethical point of view; they have legal and moral weight. They are more than aspirational; they are mandatory. All public servants are therefore required to uphold these values at all times. Those whose behaviour appear to deviate from the socially acceptable standard according to the Government of PNG's Ethics and Value-Based Executive Leadership and Management Capability Framework must not be tolerated. Hence, the 0-1 dichotomy is justified: either you demonstrate strong ethical values or you don't.

Measuring Precinct leadership training course/program

As noted before, we aim to assess the effectiveness of the Precinct's ethics and values-based leadership training in enhancing participants' demonstration of honesty, integrity, accountability, respect, wisdom and responsibility in the work they do. We are particularly interested in examining the outcomes for participants who completed the ethics-based leadership courses relative to the outcomes for participants who were not enrolled in any ethics and values-based leadership course. To do this, we used the Tracer survey response to the question, "What was the name of your Precinct course? (If you have completed two or more courses, please tick the names of all the courses you have completed)". While 42 courses were offered over the 2015-2020 period, the survey responses captured only 36 courses with clear course/program titles. Appendix Table A1 lists 28 program/course titles after excluding participants with missing survey or administrative data and three participants that did not specify the titles of the course(s) that they completed.

The course/program titles indicate that many of the Precinct courses were broadly labelled under "ethics" and "leadership" training banners, but there are also participants who did not complete any ethics or leadership-based courses. Some Precinct participants completed courses that covered an array of management disciplines and programs that promote PNG Government's key policies like gender and social inclusion. We therefore measured the Precinct leadership training course/program variable with coding 1=participants completed courses with "leadership", "ethics", "governance", "transparency" and "women in boards and management" as the core curriculum; and 0=participants who completed non-ethics and values-based leadership courses/programs. It is important to note that 81 percent of the respondents completed only one course while some 25 participants (less than 10 per cent of the participants) completed multiple programs/courses from either side of the dichotomy. Future Leaders Program and Public Speaking and Speech Writing were the two most popular common courses/programs, having been completed by, respectively, 15 and 18 of the 25 participants. We therefore, classified these participants as having completed ethics and leadership courses or not, depending on the popularity of the course/program completed. For 10 of the 25 participants who completed both of these popular courses, we classified them according to the first listed course. Approximately 49.4 percent of the respondents completed ethics and values-based leadership courses/programs, while the other 50.6 did not complete ethics and values-based leadership courses/programs.

Estimation method

We used discrete choice model, specifically binary logistic regression model, with coding of the dependent variable E_i as 1=consistently practising the ethics and values-based leadership and 0=not consistently practising ethics and values, to analyse the data. The logistic regression is specified as;

$$\text{logit}(E_i) = \beta_0 + \gamma_i \text{Course}_i + \omega_i \text{Controls}_i + \varepsilon_i \quad (1)$$

where β , γ and ω are regression parameters and ε is a random error term; E_i is the probability that a Precinct participant i is consistently practicing each of the six ethical and values-based leadership traits: honesty, integrity, accountability, respect, wisdom, and responsibility; Course_i is a dummy variable to indicate whether or not respondent i completed the ethics and values-based leadership course/program; Controls_i is a vector of control variables for respondent i . The control variables we consider are gender of respondents, whether a respondent is disabled, the type of job the respondent does, respondent's job level at the time he/she attended the Precinct training, the level of government agency that respondent worked for, respondent's province of work/residence, Precinct course/training provider, resistance to change, and time since taking the Precinct course/training. At this point, a note on the last two control, possibly confounding, variables is in order.

Resistance to change variable is included because responses to other survey questions suggest that the Precinct program may have supported PNG in developing capable and values-based leadership in the country's public sector. But some of the respondents also indicated that they have tried to contribute to change in systems and behaviours in their workplaces but with little or no success, due to institutional blockages. To measure resistance to change, we used the response to the question: "Since participating in the Precinct program, I and/or other participants have been able to change systems and behaviours inside of our organisation to better align with the values". The responses coded on a 4-point scale: Strongly Agree=1; Agree=2; I/we have tried but with limited success=3; Not sure=4. These indicate the respondents' perception of both absolute and relative magnitudes of resistance to change. A ranking in the 1–2 range signifies judgement that the absolute severity of resistance to change is somewhat negligible; yet, an identical perception of relative severity of the same resistance may have been ranked by another respondent in the 3–4 range. In such circumstances, nothing useful for policy can be gleaned from differences among respondents in their perceptions of the absolute and relative magnitudes of resistance to changing systems and behaviours. We therefore, constructed the measure of resistance to change by collapsing the four responses into a bivariate variable set equal to 1 if a respondent has been able to change systems and behaviours inside of his/her organisation to better align with the values, and zero otherwise. So, the normalised scores along the scale of 1–0 measures the average difference between respondents who judged the effect of resistance to change as least severe and those that judged the effect of resistance to change as most severe.

The *time since taking course* variable is included because it might be taking time for the Precinct training alumni to understand its importance and begin to practise ethics and values-based leadership and management practices at the workplace. We assume therefore that those who attended the course in earlier years (2015-2018 which is 60 percent of the sample) have had sufficient time to implement what they learnt compared to those who attended the Precinct courses in more recent years (2019-2020 which is 40 percent of the sample). Therefore, instead of year the respondents attended Precinct training, we use a dichotomous variable time since taking course set equal to 1 if respondent attended Precinct training in the years 2015-2018, and 0 otherwise.

Results

Summary statistics of the data

Basic descriptive statistics of the sample are provided in Table 1. As indicated in the table, the sample consists of Precinct alumni who completed courses with a focus on ethics and leadership (49.5 percent) and others who completed courses focusing on management and related subjects (50.5 percent). Fifty-five percent of the sample respondents are male. 5.5 percent of all respondents identified as persons with disability. With the exception of only wisdom, more than half of the respondents believe that they consistently demonstrated honesty, integrity, accountability, respect and responsibility. Seventy percent of the respondents believe that they have been able to change systems and behaviours inside of their organisations. On training service providers, majority (42.5 percent) of respondents were taught by the University of Queensland staff, while both Queensland University of Technology and Abt. Management Services staff taught the lowest number of respondents (1 each). Respondents working for national and provincial governments are almost equally represented in the sample at 38.1 percent and 36.6 percent respectively. While all job types are fairly represented in the sample, those in middle management dominate the sample respondents at 42.9 percent. Regarding the province of work/residence, most of the sample respondents are from the National Capital District (38.1 percent), although this figure include those from Central Province that literally surround the country's capital.

Empirical results 1: Baseline specification

Table 2 displays the binary logistic regression coefficients and z values of the effect of taking ethics and leadership courses at the Precinct on each of the six ethics and values-based leadership traits – honesty, integrity, accountability, respect, wisdom, and responsibility. These estimates suggest that all the ethics and values-based leadership traits have no statistically significant correlation with the ethics and leadership course/program dummy. Thus, there is no significant difference between respondents who completed ethics and values-based leadership courses and those who did not in demonstrating ethics and values-based leadership characteristics in the public service workplace. It can therefore, be inferred that completing ethics and values-based courses at the Precinct is unlikely to be a determining factor in PNG public servants' demonstration of ethical and values-based leadership. In order to validate this finding, we used an alternative variable exploiting the fact that respondents may have learned about, and learnt new skills from, Ethics and Values-based Executive Leadership and Management Capability Framework through the Precinct program.

Empirical results 2: Alternative specification

Results in Table 2 suggest that practising ethics and values-based leadership in the workplace may not be different between participants who completed ethics and leadership courses and those who did not. Even then, data from the Tracer survey indicate that some respondents still believe that they learnt new skills, not necessarily from the ethics and values-based leadership courses (emphasis added), that helped them to implement parts of the Ethics and Values-based Executive Leadership and Management Capability Framework. To use this perception as an alternative variable, the respondents answered the following two questions about the Precinct training, which allowed us to estimate the expected contribution of the courses to ethical and values-based leadership: (1) Whether they learned about the Ethics and Values-based Executive Leadership and Management Capability Framework through the Precinct program; and (2) Whether they learned new skills from the Precinct program that helped them to implement parts of the Ethics and Values-based Executive Leadership and Management Capability Framework.

Table 1 : Summary statistics of variables used in statistical analysis

Variable name	Measurement	Mean	S.Dev.
Honesty	Dummy variable, 1 if individual consistently demonstrate honesty, and 0 otherwise.	0.612	0.488
Integrity	Dummy variable, 1 if individual consistently demonstrate integrity, and 0 otherwise.	0.516	0.501
Accountability	Dummy variable, 1 if individual consistently demonstrate accountability, and 0 otherwise.	0.579	0.495
Respect	Dummy variable, 1 if individual consistently demonstrate respect, and 0 otherwise.	0.674	0.470
Wisdom	Dummy variable, 1 if individual consistently demonstrate wisdom, and 0 otherwise.	0.429	0.496
Responsibility	Dummy variable, 1 if individual consistently demonstrate responsibility, and 0 otherwise.	0.645	0.479
Took ethics and leadership course	Dummy variable, 1 if individual took ethics and leadership course, and 0 otherwise.	0.495	0.501
Learned ethics and values at the Precinct	Continuous, an index combining learning about leadership virtues and new skills at the Precinct using the method of principle component analysis.	2.498	1.321
Resistance to change	Dummy variable = 1 if individual has been able to change systems and behaviours inside of his/her organisation, and 0 otherwise.	0.703	0.458
Time since taking course	Dummy variable = 1 if individual attended Precinct in 2015-2018, and 0 otherwise.	0.495	0.501
Gender	Dummy variable, 1 if individual is male, and 0 otherwise.	0.546	0.499
Disability	Dummy variable = 1 if individual is a person with disability, and 0 otherwise.	0.055	0.228
Training provider	Categorical, See Table A2 in the Appendix	2.978	2.725
Govt. agency level working for	Categorical, See Table A3 in the Appendix		
Job level at time of course	Categorical, See Table A4 in the Appendix		
Province of work/residence	Categorical, See Table A5 in the Appendix		
Job type	Categorical, See Table A6 in the Appendix		

Table 2: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service

Independent variables	Dependent Variables					
	Ethics-based leadership traits		Values-based leadership traits			
	Honesty	Integrity	Accountability	Respect	Wisdom	Responsibility
Took ethics and leadership courses	-0.21 (0.48)	-0.46 (0.12)	-0.46 (0.12)	-0.05 (0.87)	-0.17 (0.56)	0.03 (0.94)
Resistance to change	-0.68*** (0.02)	-0.76*** (0.01)	-0.85*** (0.00)	-0.90*** (0.00)	-1.12*** (0.00)	-0.99*** (0.00)
Time since taking course	-0.06 (0.83)	0.06 (0.82)	0.03 (0.91)	-0.12 (0.66)	-0.03 (0.92)	-0.12 (0.66)
Training provider	-0.06 (0.25)	-0.06 (0.26)	0.05 (0.34)	-0.07 (0.23)	0.04 (0.47)	0.04 (0.49)
Gender	0.53* (0.06)	0.76*** (0.01)	0.57*** (0.04)	0.67*** (0.02)	0.55** (0.05)	0.95*** (0.00)
Disability	-0.51 (0.41)	0.77 (0.21)	0.36 (0.54)	0.23 (0.69)	0.03 (0.96)	1.03* (0.08)
Province of work/residence	-0.02 (0.54)	-0.02 (0.40)	0.00 (0.96)	0.02 (0.57)	-0.02 (0.550)	-0.02 (0.50)
Job type	0.03 (0.76)	-0.03 (0.75)	0.00 (1.00)	-0.03 (0.77)	-0.07 (0.43)	-0.05 (0.56)
Job level at time of course	0.40*** (0.01)	0.40*** (0.01)	0.47*** (0.00)	0.22 (0.18)	0.46*** (0.00)	0.41*** (0.01)
Government agency worked for	0.38*** (0.01)	0.37*** (0.02)	0.25* (0.09)	0.24 (0.13)	-0.02 (0.89)	0.35*** (0.03)
_cons	-1.77*** (0.02)	-1.14 (0.13)	-1.83*** (0.01)	-1.43* (0.07)	-0.10 (0.89)	-2.12*** (0.01)
Prob > chi2	0.0005****	0.0000****	0.0004****	0.0096**	0.0022	0.0000****
Pseudo R2	0.0855	0.1112	0.0868	0.0677	0.0736	0.1073
Observations	273	273	273	273	273	273

Note: p>|z| values are in parenthesis; ****, ***, **, * and * denote 1%, 2.5%, 5% and 10% levels of significance, respectively.

The responses were first coded on a 5-point scale: Strongly agree=1; Agree=2; I did learn more about it, but I was already aware of it=3; Disagree=4; Strongly disagree=5. Eighty-three percent and 90 percent of the respondents either strongly agree or agree with the two statements respectively; the correlation between the answers to the two questions is also very high (0.74). The first principle component (with weights 0.693 and 0.763) constructed from the set of 5-point scale responses for both questions explained 86.94 percent of their overall variation. We therefore, combined the two variables using principle components method to see if what was learnt at the Precinct program contributed to ethical and values-based leadership practices among PNG public servants. The results are displayed in Table 3.

With the exception of honesty, accountability and wisdom, our findings in Table 3 show a positive relationship between learning about ethics and values-based leadership at the Precinct program and the extent to which the former program participants believe that they exhibit integrity, respect and responsibility at their workplaces. Thus, the participants are more likely to practise integrity, respect and responsibility at their workplaces not necessarily because they completed ethics and values-based leadership courses. They may have heard about these virtues from their co-participants at the Precinct and also believe that they learnt something new that may have contributed to the positive correlation with some of the virtues. The probability of practising integrity, respect and responsibility increases by between 18 and 25 percent across these three leadership virtues, as the participants increasingly believe that they learnt new skills from the Precinct that helps them implement parts of the Executive Leadership and Management Capability Framework.

Empirical results 3: Robustness check

Results in Table 2 indicated that Precinct participants who completed ethics and leadership courses do not consistently demonstrate the six ethics and values-based leadership traits (honesty, integrity, accountability, respect, wisdom, and responsibility) in any significant way compared to those who did not complete the same courses. Yet, results in Table 3 indicate that participants' learning about ethics and values-based executive leadership and management combined with new skills they acquired from the Precinct program is more likely to increase the participants' tendency to practise integrity, respect, and responsibility only. In order to reconcile these somewhat conflicting results, we report robustness checks (Tables 4a and 4b) for the two sub-populations of the sample.

The results hold for PNG public servants who complete ethics and leadership courses (labelled "Course") in that learning about ethics and values-based leadership with new skills from the Precinct is not correlated to them demonstrating any of the six core ethics and values-based leadership traits. The results also hold for PNG public servants who did not complete ethics and leadership courses (labelled "Non-Course") in that learning about ethics and values-based leadership with new skills from the Precinct is found to have statistically significant effect on their demonstration of two out of the six leadership virtues, which are integrity and respect.

In general, taking Precinct's ethics and leadership courses does not seem to be a determining factor in PNG public servants' demonstration of ethical leadership traits in their workplaces. In contrast, those who took management courses are likely to have learnt new skills that helped them to demonstrate some of the ethics and values-based leadership at their workplaces. For them, the probability of consistently demonstrating integrity and respect increases by 29 and 32 percent as they increasingly believe that they learnt new skills from the Precinct that helps them implement parts of the Executive Leadership and Management Capability Framework.

Table 3: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service

Independent variables	Dependent variables					
	Ethics-based leadership traits			Values-based leadership traits		
	Honesty	Integrity	Accountability	Respect	Wisdom	Responsibility
Learned ethics/values at the Precinct	0.03 (0.80)	0.20** (0.05)	0.14 (0.17)	0.25*** (0.02)	0.08 (0.42)	0.18* (0.09)
Resistance to change	-0.65*** (0.03)	-0.66*** (0.03)	-0.77*** (0.01)	-0.82*** (0.01)	-1.07*** (0.00)	-0.93*** (0.00)
Time since taking course	-0.05 (0.87)	0.07 (0.80)	0.04 (0.89)	-0.16 (0.58)	-0.03 (0.91)	-0.15 (0.60)
Training provider	-0.08 (0.17)	-0.09* (0.09)	0.02 (0.63)	-0.09 (0.14)	0.03 (0.57)	0.03 (0.57)
Gender	0.57** (0.04)	0.86*** (0.00)	0.66*** (0.02)	0.71*** (0.02)	0.59*** (0.03)	0.96*** (0.00)
Disability	-0.53 (0.39)	0.76 (0.21)	0.33 (0.56)	0.30 (0.61)	0.03 (0.96)	1.08* (0.07)
Province of work/residence	-0.02 (0.59)	-0.01 (0.60)	0.01 (0.83)	0.03 (0.39)	-0.01 (0.64)	-0.01 (0.62)
Job type	0.03 (0.71)	-0.04 (0.69)	0.00 (1.00)	-0.05 (0.57)	-0.07 (0.41)	-0.07 (0.42)
Job level at time of course	0.40*** (0.01)	0.41*** (0.01)	0.47*** (0.00)	0.24 (0.14)	0.46*** (0.00)	0.43*** (0.01)
Government agency level worked for	0.42*** (0.00)	0.45*** (0.00)	0.34 (0.02)	0.28 (0.07)	0.01 (0.92)	0.36*** (0.02)
_cons	-2.06*** (0.01)	-2.19*** (0.00)	-2.71*** (0.00)	-2.27*** (0.00)	-0.51 (0.49)	-2.64*** (0.00)
Prob > chi2	0.0007***	0.0000***	0.0005***	0.0012***	0.0200***	0.0000***
Pseudo R2	0.0843	0.1148	0.0852	0.0844	0.0745	0.1153
Observations	273	273	273	273	273	273

Note: p>|z| values are in parenthesis; ****, ***, **, * and * denote 1%, 2.5%, 5% and 10% levels of significance, respectively.

Table 4a: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service: Ethical leadership traits

Independent variables	Dependent variables							
	Honesty		Integrity		Accountability			
	Course	Non-course	Course	Non-course	Course	Non-course	Course	Non-course
Learned ethics/values at the Precinct	0.09 (0.63)	-0.05 (0.69)	-0.01 (0.97)	0.29* (0.06)	0.07 (0.68)	0.20 (0.15)		
Resistance to change	-0.56 (0.19)	-0.75* (0.09)	-0.87*** (0.04)	-0.53 (0.26)	-0.95*** (0.03)	-0.75 (0.10)		
Time since taking course	0.43 (0.32)	-0.31 (0.44)	0.65 (0.13)	-0.48 (0.24)	0.84** (0.05)	-0.74* (0.07)		
Training provider	-0.15* (0.06)	0.03 (0.72)	-0.07 (0.32)	-0.11 (0.26)	0.06 (0.40)	-0.06 (0.54)		
Gender	0.96*** (0.03)	0.21 (0.60)	1.41*** (0.00)	0.49 (0.24)	0.42 (0.31)	1.01*** (0.02)		
Disability	-0.51 (0.57)	-0.65 (0.45)	0.90 (0.27)	0.51 (0.60)	0.64 (0.42)	0.12 (0.89)		
Province of work/residence	-0.05 (0.28)	0.00 (0.94)	-0.06 (0.23)	0.03 (0.50)	0.01 (0.86)	0.05 (0.26)		
Job type	-0.04 (0.79)	0.07 (0.57)	-0.23 (0.10)	0.07 (0.61)	-0.12 (0.39)	0.03 (0.80)		
Job level at time of course	0.57*** (0.02)	0.33 (0.14)	0.46** (0.05)	0.44* (0.06)	0.73*** (0.00)	0.37 (0.11)		
Government agency level worked for	0.22 (0.54)	0.44*** (0.02)	0.47 (0.19)	0.47*** (0.01)	0.17 (0.64)	0.41*** (0.02)		
_cons	-2.08 (0.10)	-1.69 (0.15)	-1.53 (0.20)	-2.67*** (0.03)	-3.14*** (0.02)	-2.73*** (0.02)		
Prob > chi2	0.0461**	0.1643	0.0031***	0.0324***	0.0431**	0.0231***		
Pseudo R2	0.1099	0.0746	0.1472	0.1048	0.1077	0.1083		
Observations	135	138	135	138	135	138		

Note: >|z| values are in parenthesis; ****, ***, ** and * denote 1%, 2.5%, 5% and 10% levels of significance, respectively.

Table 4b: Logistic regression coefficients of perceived ethics and values-based leadership in PNG public service: Values-based leadership traits

Independent variables	Dependent variables					
	Respect		Wisdom		Responsibility	
	Course	Non-course	Course	Non-course	Course	Non-course
Learned ethics/values at the Precinct	0.21 (0.28)	0.32*** (0.02)	0.05 (0.80)	0.11 (0.45)	0.21 (0.27)	0.22 (0.12)
Resistance to change	-1.20*** (0.01)	-0.51 (0.26)	-1.63*** (0.00)	-0.80* (0.09)	-1.16*** (0.01)	-0.84* (0.06)
Time since taking course	-0.12 (0.79)	-0.06 (0.88)	0.90** (0.05)	-0.48 (0.22)	0.72 (0.11)	-0.75* (0.07)
Training provider	-0.09 (0.29)	-0.10 (0.33)	0.03 (0.64)	0.08 (0.48)	0.02 (0.78)	-0.02 (0.83)
Gender	0.59 (0.20)	0.97*** (0.03)	0.67 (0.12)	0.62 (0.12)	1.11*** (0.01)	1.01*** (0.02)
Disability	1.21 (0.14)	-0.40 (0.67)	0.87 (0.33)	-0.77 (0.36)	1.32 (0.12)	0.85 (0.36)
Province of work/residence	0.01 (0.84)	0.06 (0.14)	-0.03 (0.57)	0.03 (0.42)	0.01 (0.80)	0.01 (0.89)
Job type	-0.02 (0.90)	-0.05 (0.70)	-0.26* (0.07)	0.04 (0.72)	-0.15 (0.31)	-0.07 (0.59)
Job level at time of course	0.78*** (0.01)	-0.14 (0.55)	1.00*** (0.00)	0.13 (0.56)	0.71*** (0.01)	0.30 (0.22)
Government agency level worked for	0.44 (0.27)	0.33* (0.07)	0.32 (0.38)	0.04 (0.80)	0.56 (0.14)	0.43*** (0.02)
_cons	-3.72*** (0.01)	-2.31* (0.06)	-1.92 (0.12)	-0.52 (0.66)	-4.19*** (0.00)	-2.45** (0.05)
Prob > chi2	0.0048***	0.1286	0.0000***	0.3776	0.0031***	0.0165***
Pseudo R2	0.1560	0.0835	0.2043	0.0574	0.1556	0.1183
Observations	135	138	135	138	135	138

Note: p>|z| values are in parenthesis; ****, ***, **, * and * denote 1%, 2.5%, 5% and 10% levels of significance, respectively.

Discussion

In this study, we examine the influence of ethics and leadership training on ethical and values-based leadership capability practised by PNG public servants upon returning to work after completing the Precinct training program. We used a sample of 273 public servants from the 2015-2020 cohorts. By nature of the courses, the sample respondents was divided into two broad categories. The first group consisted of respondents who completed courses where either ethics and leadership content were the main topics or materials as reflected in the courses' titles. The second group consisted of respondents who completed courses other than those with ethics or leadership as the core curriculum.

In general, taking ethics and leadership courses has no influence on PNG civil servants' demonstration of ethical leadership. This finding agrees with Jewe (2008), who found that completing business ethics courses has no significant effect on students' ethical attitudes. Izzo (2000) and Adam and Rachman-Moore (2004) also agreed, with both concluding that training employees on ethics does not necessarily improve their ethical behaviours or attitudes. Our finding is, however, in contrast to the findings of May and Luth (2013), May et al. (2014) and Valentine and Fleischman (2004) who found that ethics education positively influenced peoples' moral efficacy, reasoning and courage, thereby, improving peoples' desirable ethical behaviour. Thus, as Wu (2003) noted, completing ethics courses helps foster ethical decision-making.

Suprisingly, our results found that respondents who did not take ethics or leadership courses somehow learnt new skills that positively and significantly influenced their consistent demonstration of integrity and respect in their workplaces. This result is not entirely suprising as it resonates with other prior studies. Boyd (1982) and Arlow and Ulrich (1983) are two studies that say it is possible for two groups of students to respond differently when subjected to the same ethics course. Arlow and Ulrich (1983) argued that this can be so because some students may have 'prior' knowledge of the subject. Accounting students, for example, received additional training in accounting ethics in the accounting curriculum that gave them some advantage over other students in demonstrating higher scores in business and society course.

Our findings show no significant relationship between learning about ethics and values-based leadership at the Precinct program and the extent to which the former program participants who took courses in ethics and leadership believe that they exhibit all other ethics and values-based leadership. In other words, what these participants learnt about ethics and values-based executive leadership and management combined with new skills they acquired from the Precinct program have nothing to do with their perceived honesty, integrity, accountability, respect, wisdom and responsibility. This is not necessarily true for participants who did not take ethics and leadership courses.

It is important to note that these results are unsurprising. Some respondents indicated that their workplaces are not open to change, even when they carry out their work with due diligence while hoping for the best. But, the Precinct's theory of change has also been criticised by Quality and Technical Assurance Group (2019) for making assumptions that are not consistent with international evidence of good practice, in particular that training is sufficient to achieve the program goal. Thus, there may be some unobserved variables which is correlated with both Precinct program indicators and the core values, but not included in our model. Hence, our estimates are reliable, but could be biased downwards. A possible correction of this downward bias, as suggested under research limitations below, is to follow the same respondents in future Tracer studies to build a longitudinal dataset suitable for analysing their behavioural changes over time.

Also, since some human behavioural traits are slow to change, a possible alternative to training public servants already in the workforce is to introduce these ethics and values-based leadership and management courses in primary, secondary, and tertiary education curricula. This should inculcate the ethics and values-based leadership and management principles in young minds before they enter the workforce.

Increasing the length and breadth of the courses targeting public servants already in the workplace is also an option but this will come at a cost. So, this option can also be considered depending on the availability of (financial) resources. As alternatives to this, perhaps regular workshops and briefings at the workplace might help remind public servants of the importance of practising ethics and values-based leadership and management at the workplace.

Conclusion

Concluding comments

The results of this study provide empirical evidence on the effectiveness of the Precinct Leadership Program that has been running since 2015. It provides evidence that some public servants, and the Public Service sections to which they return after training, could potentially benefit from the Precinct programs. The results have uncovered more realistic program outcomes that inform policymakers and training institutions of one of the bases for improving the Precinct leadership program or other similar programs.

Practical policy implications

Leaders and managers of the PNG public sector are required to carry out their duties in an ethical, effective and efficient manner. Yet, corrupt practices such as abuse of public office for private gain and/or bending rules in favour of preferred persons and corporate bodies are still believed to be endemic in the country's public service. So, the fight against corruption and promoting ethical leadership remain a key public policy agenda of the government. One way to achieve this objective is through such investments as the Precinct training program which was aimed at assisting public servants to understand and take steps to embody leadership and management values needed for prudent management of the country's rich natural resources. Our study is a contribution to evaluating the impact of leadership training program on public sector reform efforts. Our results reveal that (i) contrary to what is perceived by majority of the survey respondents, the Precinct training program is not likely to increase the tendency for public servants to demonstrate all Leadership Capability Framework values, but integrity and respect in their workplaces; and (ii) honesty, in particular, which is the behaviour that is consistent with Christian principles, social norms, family expectations and policies and procedures of the country's contemporary organisations, is not likely to be influenced in any way by what the public servants learn or acquire from the Precinct program.

Research limitations and way forward

The main limitation of the research stems from restrictions relating to the cross-sectional nature of the data; the survey data we used had only one cross-section. So, it is not possible to evaluate the change in the tendency of public service employees to exhibit ethics and values-based leadership and management over time. In the absence of repeated cross-sections, it would have been possible, as an alternative, to evaluate the impact of the Precinct program if a "control group" of public servants who did not participate in any of the Precinct courses were also interviewed. Perhaps asking the same questions to the control group as were asked the "treatments" (public servants who took Precinct courses) will be useful for future research.

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Appendix

Table A1: Precinct course/Program classification

Course/Program Name	No. of course participants	% of course participants	Course/Program classification
Bougainville Senior Leaders Program	1	0.37	L
Building High Performing Teams	10	3.66	N
Certificate IV in Leadership and Management	3	1.10	L
Challenges in Leadership	2	0.73	L
Coaching and Developing Others	7	2.56	L
Diploma of Leadership and Governance	2	0.73	L
Diversity in Leadership for Basic Service Delivery	8	2.93	L
Diversity in Leadership for Improved Service Delivery	3	1.10	L
Emerging Women on Boards and in Management Positions	3	1.10	L
Establish Your Directorship Knowledge	1	0.37	L
Ethical Decision-Making in Leadership	32	11.72	E
Future Leaders Program	50	18.32	L
Graduate Certificate in Governance and Public Policy	1	0.37	E
Inclusive Strategic Leadership	12	4.40	L
Leadership and Innovation in the Agriculture Sector	1	0.37	L
Leadership in the Extractives Sector	1	0.37	L
Leadership, Data Management and Transparency in the Extractive Sector	1	0.37	E
Leading with Strategic Intelligence - Shared Values and Leading Coalitions in PNG	3	1.10	L
Male Advocate Network Training	1	0.37	N
Master Class in Evidenced-Based Policy	2	0.73	N
PILAG Financial Management Short Course	2	0.73	N
PILAG PM and Public Sector FM Short Courses	53	19.41	N
PILAG Project Management Short Course	20	7.33	N
Public Speaking and Speech Writing	21	7.69	N
Senior Women on Boards and in Executive Management Positions	3	1.10	L
Transparency and Reporting in the Mining Sector	1	0.37	E
Writing for Government	14	5.13	N
Writing NEC Submissions	15	5.49	N
TOTAL	273	100.00	

Note: : Courses are classified as focused on ethics (E) and/or leadership (L) OR none of these (N).

Table A2: No. of participants taught by training service provider

Name of training service provider	Training provider code	No. of respondents served	Share (%)
University of Queensland	1	116	42.5%
Pacific Institute of Leadership and Governance	2	52	19.0%
The Ethics Centre	4	32	11.7%
PNG Institute of Public Administration	3	24	8.8%
Australian Public Service Commission	6	17	6.2%
Education Capacity Development Facility	9	11	4.0%
Australian Institute of Company Directors	8	7	2.6%
Department of Personnel Management	13	4	1.5%
Centre for Public Management	7	3	1.1%
PNG Business Coalition for Women	10	3	1.1%
Australian and New Zealand School of Government	5	2	0.7%
Abt. Management Services	11	1	0.4%
Queensland University of Technology	12	1	0.4%
		273	100.0%

Table A3: Distribution of respondents by level of Government agency worked for

	Agency code	No. of respondents working there	Share (%)
National	1	104	38.1%
Provincial	2	100	36.6%
District	3	46	16.8%
Local Level Government	4	23	8.4%
		273	100.0%

Table A4: Distribution of respondents by job level at time of attending course

	Job level code	No. of respondents on job level	Share (%)
Executive Management	1	20	7.3%
Senior Management	2	71	26.0%
Middle Management	3	117	42.9%
Officer	4	63	23.1%
Others	5	2	0.7%
		273	100.0%

Table A5: Distribution of respondents by province

	Province code	No. of respondents in Province	Share (%)
Autonomous Region of Bougainville	1	10	3.7%
East New Britain	2	19	7.0%
East Sepik	3	13	4.8%
Eastern Highlands	4	5	1.8%
Enga	5	7	2.6%
Gulf	6	4	1.5%
Madang	7	10	3.7%
Manus	8	4	1.5%
Milne Bay	9	13	4.8%
Morobe	10	15	5.5%
National Capital District	11	104	38.1%
New Ireland	12	5	1.8%
Oro	13	6	2.2%
Simbu	14	4	1.5%
Southern Highlands	15	15	5.5%
West New Britain	16	7	2.6%
West Sepik	17	15	5.5%
Western	18	7	2.6%
Western Highlands	19	10	3.7%
Jiwaka	20	0	0.0%
Hela	21	0	0.0%
		273	100.0%

Table A6: Distribution of respondents by type of job

	Job type code	No. of respondents on job type	Share (%)
Administration	1	72	26.4%
Frontline service provider	2	53	19.4%
Human resources	3	40	14.7%
Policy	4	45	16.5%
Others	5	63	23.1%
		273	100.0%



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