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Planning Strategic Intake:
The Mass Balance of Recruiting and Occupational Health Recovery

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TABLE OF CONTENTS

LIST OF FIGURES 4
LIST OF TABLES 5
ABBREVIATIONS 6
ABSTRACT 7
ACKNOWLEDGEMENTS 9
INTRODUCTION 10
PART ONE: OCCUPATIONAL HEALTH IN DEFINING RECRUITING TARGETS 14
Definitions 14
Assessment Methodology and Assumptions 16
A Short History of the CAF's Occupational Health 19
The Impact of Establishment Growth 24
A Note on Releases 26
A Note on Transfers 30
The Impact of Releases and Transfers 33
A Note on the Basic Training List 36
PART TWO: DEVELOPMENT OF A STRATEGIC PLAN FOR SIP 40
Assessing the CAF's Recent Strategic Intake Plans 40
Assessing the CAF's Current Recruiting Strategy 43
Planning for Occupational Recovery: Issues in CAF Occupational Health Modeling 53
Case Study: The Royal Canadian Navy as Uniquely Challenged in Recruiting 58
Case Study: The Canadian Army as Uniquely Challenged in Recruiting 72
The Role of Training Capacity in SIP Development 79
Developing a Strategic Plan for Strategic Intake 82
Consequences of Failure 89
CONCLUSION AND RECOMMENDATIONS 93
Conclusion 93
General Recommendations 94
Recommendations Specific to Existing Processes and Policies 98
Final Word 102
ANNEXES 103
Annex A: Explanation of Establishment and Strength Report Data 103
Annex B: Explanation of Strategic Intake Plan Scorecard Data 105
Annex C: Issues in LRPM and OSSM Models 108

Annex D: Calculation of an Ideal BTL 115
BIBLIOGRAPHY 119

LIST OF FIGURES

Figure 1: Representation of Systemic Response to a Change in Set Point. 46
Figure 2: Population Distribution by age, Rural and Small-Town v. Urban Area. 51
Figure 3: RCN RegF TEE, TES and Total Members, All Occupations, FY End 2013-2024 59

LIST OF TABLES

Table 1: CAF TEE, TES and Occupational Health (TES/TEE), FY end 2014-2024 21
Table 2: Occupational Health Data, 2014-2024, by CAF Environment 21
Table 3: CAF Establishment Growth by Environment, 2015-2024 24
Table 4: Average RegF Release Rates by CAF Environment, 2017/18 to 2022/23 26
Table 5: Net Transfers Into and Out of RegF Environments, FY 2023/24 30
Table 6: CAF BTL/SUTL by Environment and Overall, FY End 2006-2024 36
Table 7: Year End SIP Performance, All CAF Occupations, 2010-2024 40
Table 8: External Recruiting Performance, All CAF Environments, End FY 2016-2024 41
Table 9: Next FY SIP vs Previous Year End Occupational Health, 2020-2025 43
Table 10: Comd MilPersCom Horizon 2 SIP, 2024/25 to 2033/34, as of Mar 24 45
Table 11: Citizens Per Full-Time Military Member, Five Eyes, 1989-2019 52
Table 12: RCN RegF Occupational Health, All Personnel, 2013-2024 58
Table 13: SIP, Intake and Achievement, RCN RegF, All Occupations, FY End 2010-2024 60
Table 14: RCN RegF Occupational Health, All NCM occupations, 2013-2024 61
Table 15: RCN NCM Recruiting, 2009/2010 to 2023/24, All Occupations 62
Table 16: RCN NCM Establishments and SIPs, Comparing SIP / TEE Ratios, FY End 2024 63
Table 17: MAR TECH Recruiting Achievement, 09/10 to 23/24 65
Table 18: RCN BTL Over Time, By Occupation, FY End 2014 to 2024 67
Table 19: 2023/24 RCN RegF SIPs and Achievement Rates, By Occupation 68
Table 20: 2024 RCN AMOR Recommendations vs 24/25 SIP, RegF Occupations 69
Table 21: RCN 23/24 vs 24/25 SIPs, Year-Over-Year change 70
Table 22: Canadian Army Occupational Health, Total, FY Ends 2013 to 2024 72
Table 23: Occupational Health, All CA Occupations, End FY 2020 vs End FY 2024 73
Table 24: External SIP Performance, Highest Declining CA Occupations, FY end 2015-2024 74
Table 25: CA NCM Establishments and SIPs, Comparing SIP to TEE ratios, FY End 2024 75
Table 26: TES/TEE v. Next FY Assigned SIP, Highest Declining CA NCM Occupations 77
Table 27: 23/24 Recruiting Achievement vs 23-24 Delta SIP, CA Occupations 78
Table 28: Recruiting Success, Largest CAF Occupations, ranked by TEE, 23/24 91
Table 29: Excerpt from March 2024 Establishment and Strength Report 103
Table 30: RCN and CA Occupational Health, March 2024 104
Table 31: March 2024 FY end SIP Achievement Results 105
Table 32: FY End SIP Achievement Rates by Environment, 2010-2024 106
Table 33: FY End SIP Achievement Rates by Environment, Officer vs NCM, 2010-2024 107
Table 34: Inputs to the LRPM 109
Table 35: Output from the LRPM 110
Table 36: Input to the OSSM 112
Table 37: Output from the OSSM 113

ABBREVIATIONS

ACMP: Assistant Chief of Military Personnel
ADM: Associate Deputy Minister
AMOR: Annual Military Occupation Review
BTL: Basic Training List
CAF: Canadian Armed Forces
CFLRS: Canadian Forces Leadership and Recruit School
CFRG: Canadian Forces Recruiting Group
CMP: Chief of Military Personnel
COT: Compulsory Occupation Transfer
DGMPRA: Director General Military Personnel Research and Analysis
DMILC: Director Military Careers
DND: Department of National Defence
DNP: Director Naval Personnel
DPGR: Director Personnel Generation Requirements
DRWA: Director Research Workforce Analytics
EPZ: Entry Into Promotion Zone
ESR: Establishment and Strength Report
HR: Human Resources
HRMS: Human Resources Management System
KPI: Key Performance Indicator
LRPM: Long-Range Planning Model
NES: Non-Effective Strength
OFP: Occupationally Functional Point
OSSM: Occupation Structure Sustainability Model
PARRA: Production, Attrition, Recruiting, Retention and Analysis
RCAF: Royal Canadian Air Force
RCN: Royal Canadian Navy
RegF: Regular Force
ResF: Reserve Force
SIP: Strategic Intake Plan
SPHL: Service Personnel Holding List
SUTL: Subsidized University Training List
TEE: Trained Effective Strength
TES: Trained Effective Strength
TIR: Time in Rank
VOT: Voluntary Occupation Transfer

ABSTRACT

The Canadian Armed Forces' (CAF's) Regular Force (RegF) occupational health is a measure of the professional force's ability to meet its missions in each occupation. Overall, it has declined annually for the past decade, in large part due to not receiving enough recruits who can be trained as replacements for releasing members to support current demands and planned establishment growth of the organization. Though this dearth of reinforcements is in part due to missing set recruiting targets, this paper demonstrates that the targets themselves are both insufficient to meet the CAF's needs, and unresponsive to the growing criticality of the CAF's shortages.

By analyzing occupational health trends, human resources (HR) modelling tools and the recruit-to-trained-member pipeline, this paper will clearly show that the CAF's HR mass balance cannot be met with current recruiting targets. Case studies examine the Royal Canadian Navy (RCN) and Canadian Army (CA) to demonstrate that those areas of the organization are disproportionately affected; the Navy, for instance, had its recruiting targets significantly decreased year-over-year in the last fiscal year, despite its personnel strength being at historic lows and falling. Without correcting targets to increase demand for recruits as occupations decrease in health, timely recovery is not possible.

The lack of strategic direction for the CAF's recruiting objectives is a main cause, as well as some assumptions used within the target calculation. Targets are artificially lowered because of perceived inability to train large numbers of recruits, or because of perennial resource constraints in processing recruits through CAF-run recruiting centers. The only conclusion is that continuing the status quo is continuing to set targets that do not lead to meaningful recovery. The CAF is unable to recover until mathematically correct targets are set (and then achieved);

strategic leadership is misinformed about the scope of the CAF's recruiting problem when communication discusses targets set below required recovery levels, and is thus ill equipped to resource recruiting, training and recovery correctly.

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INTRODUCTION

Corporate entities everywhere rise and fall based on their ability to meet their corporate mission, whether it is profit or non-profit based. Their success is in large part derived from maintaining a workforce which meets their mission requirements, both as an aggregate of the workforce's productivity and as a sum of each individual's contribution in the various functions of the business, commonly grouped in two fields: operations and support. The Canadian Armed Forces (CAF) is similarly reliant on these functions to accomplish its missions, and people to accomplish these functions. From a full-time workforce perspective, human resources in these two fields fill 114 Regular Force (RegF) occupations. Those occupations consist of 75 Non-commissioned member occupations, who fill technician, administrative and operator roles; 37 officer occupations, who perform middle management and leadership roles; and two senior managerial occupations. These comprise a combined size of over 63 000 positions assigned to trained workers across all roles in those occupations.[1,2] The ability of the CAF to perform each of the jobs which those positions represent is critical to its success in both meeting its mission and functioning as a corporate entity.

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[1] Note: this report focuses on CAF RegF occupations and does not consider Reserve Force (ResF) occupations, for a variety of reasons. Some of the reasons are that the ResF establishment is much more fluid with members at times working full time and at times not; that not all RegF occupations have ResF equivalents, complicating comparisons; that the time it takes ResF members to achieve training is much longer than their RegF peers and is inconsistent; that there is little reporting on ResF recruiting achievement; and that the responsibility for oversight of ResF occupations is different than RegF occupations. An example of the latter is, the COOK occupation is managed by the Assistant Chief of Military Personnel (ACMP) for RegF, but ResF COOKs are managed by their specific reserve environments in which they work (Land, Air, Sea).

[2] As of 31 Jan 2025, the CAF has a total authorized strength of 72 321, consisting of 63 531 positions assigned to TEE, to be filled by trained and fit members; 6167 temporary positions for those on the Basic Training List (BTL), not yet trained and employable; 1 739 positions for members in subsidized university training programs (SUTL), prior to them being assigned to the BTL; and 874 positions created for persons on the Service Personnel Holding List (SPHL, temporary positions for those on long term medical rehabilitation). Taking out those on SPHL, the remainder form the commonly estimated 71 447 authorized strength.

Filling these roles relies on a combination of recruiting new members, training them to be competent employees, and retaining their services to perform the work for which they were trained. As such, the first part of this paper will introduce the reader to the complexity of those integrated problems. These three functions are very much intertwined; the more jobs you have, the more people you must recruit and train, or else retain, to maintain the workforce. All three are challenged in today's competitive job market and with tasks which continue to increase in complexity as new technology and threats drive the organization's mandate. The CAF has indicated its intention to grow its number of positions and must therefore scale all three functions to achieve success in that intent.[3,4]

The first section of this paper will define those jobs and people in the CAF's nomenclature, and speak to the general process of recruiting members to replace those who leave. The second section will then focus on recruiting more specifically, in particular, the ability of the CAF to define its needs for recruits. Recruits are sought external to the CAF from the civilian world to each occupation separately, through identification of a target known as the occupation's external Strategic Intake Plan (SIP). The SIP directs the Canadian Forces Recruiting Group (CFRG) on how many recruits are needed for each occupation, and through which training plan they will be trained, allowing both recruiting and downstream training resources to be prioritized accordingly. The Entry Standard those recruits must meet is unique to

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[3] David Pugliese, 'Canadian Military Plans to Boost Ranks to 86,000 Personnel', *Ottawa Citizen Online*, 16 Dec 24, https://ottawacitizen.com/news/national/defence-watch/canadian-military-to-boost-ranks. This 86000 presumably includes TEE, BTL and SUTL combined.

[4] National Defence Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution', 31 October 2024, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/dm-cds-directives/directive-002-reconstitution.html.

each occupation and is defined in a policy called the Occupation Specification (Occ Spec).[5] Recruiting enough members who meet each occupation's Entry Standard, at a rate that exceeds the rate of release of members from the occupation, sustains or grows the total number of members in an occupation. Recruiting enough to support losses through early training to generate enough trained employees to replace the trained members leaving each occupation, is the "mass balance" which defines whether the occupation's strength (and thus, its health) is increasing or decreasing. This mass balance defines whether an occupation's ability to meet its mission from an HR perspective is recovering or declining.

The SIP thus has a key role in supporting or hindering that recovery. This paper will present two critical issues with the CAF's current methods of defining the SIP:

1. That the SIPs presented as the CAF recruiting plan, represent internal targets vice actual occupational needs. This misleads senior leaders who rely on this information to advise government and Canadians on the CAF's current and future readiness, and confuses force generation (FG) planning in environmental commands who are the training authorities for their respective occupations; and
2. That SIPs are themselves often calculated erroneously and, in many cases, do not represent targets that, if achieved would lead to meaningful recovery, for three reasons:

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[5] Each occupation has its own entry requirements, but recruits must also meet the requirements of their environment, and the CAF as a whole. As an example of this tiered requirement process, a recruit to the Naval Warfare Officer occupation must meet several levels of medical requirements: CAF requirements such as the Universality of Service principle, environmental requirements such as being fit for sea (i.e. not chronically seasick); and the occupation's medical entry standard which may have specific additional considerations related to the occupation's work, such as being able to operate overseas away from medical facilities for extended periods of time.

a. The calculation of the SIP as a target dependent on either the downstream recruiting or training capacity of the CAF's workforce, rather than on the actual need for recruits;
b. The calculation of the SIP based on replacing those members who will release at today's health, rather than on the number who would release if occupations were fully healthy; and, most importantly,
c. The lack of a strategic direction from CAF leaders to the Chief of Military Personnel (CMP) or environmental personnel management teams regarding the intended scheme of maneuver for recovery of each occupation and the CAF as a whole, in part due to poor communication between CMP and those teams.

The factors above result in incorrectly calculated and communicated SIPs. These intake plans are targets that in some cases cannot mathematically sustain and recover the CAF's workforce under reasonable workforce planning assumptions. This error is contributing to the overall decline in occupational health the CAF has experienced over the last ten years, most especially impacting occupations which rely on external recruiting (direct from the civilian population) most heavily rather than internal recruiting (from other occupations within the CAF) to recover.

The CAF must develop a new strategy for calculating SIP, for communicating recruiting needs of its occupations both to CFRG and the public, and for planning occupational health recovery when factoring in its current and growing establishment. Without such a strategy, it will not be able to achieve and sustain a workforce that can fully meet the Canadian government's missions for the organization.

PART ONE: OCCUPATIONAL HEALTH IN DEFINING RECRUITING TARGETS

Definitions

Beyond those defined in the introduction, the following key terms will be used throughout this paper:

Trained Effective Establishment (TEE): an occupation's number of positions for trained members, representing the collective jobs that the CAF's many units have requested each occupation to perform. Prior to 2019 TEE was referred to as Preferred Manning Level (PML). TEE may also be referred to in this paper as simply the occupation's Establishment.

Trained Effective Strength (TES): the number of people in each occupation who are trained to an employable level known as the Occupationally Functional Point (OFP). The more people in an occupation's TES, the more work they can do in the areas they are trained to work in. TES may also be referred to in this paper as simply the occupation's Strength.

Occupational Health (TES/TEE): a ratio of the number of trained members in an occupation to the establishment positions they are assigned to fill (TES divided by TEE). The higher the ratio, the ore capably an occupation's workforce is able to staff its establishment positions and accomplish the work the CAF has defined for it.

Occupationally Functional Point (OFP): the point at which members are considered trained and employable within their occupation. The time and criteria to reach OFP differ depending on the occupation.

Basic Training List (BTL): untrained members who have been recruited, but have not yet reached OFP.

Subsidized University Training List (SUTL): a subset of the BTL consisting of members who are in subsidized education, prior to occupational training.

Release: The transition of a CAF member out of CAF employment. Release may occur through a number of release items (reasons) as defined in the CAF's release policy, which are grouped herein into:

- *retainable releases* (items 4b and 4c, members who release voluntarily early in their careers who might otherwise have stayed); and
- *non-retainable releases* (all other release items, members who release for medical reasons, are released disciplinarily, are no longer suitable for employment due to medical or personal considerations, or who release in receipt of a pension indicating they are at the natural end of their employable career).

Transfer: the reassignment of a member's occupation, through voluntary or compulsory occupation transfer. Members transferred go from the "losing occupation" to a "gaining occupation" and are tracked in the gaining occupation through internal recruiting intake metrics. When a member is trained in the losing occupation, typically on transfer they will enter the gaining occupation's BTL until trained in the new occupation, decreasing the CAF's occupational health overall. This does not include members component transferring from the Reserve Force (ResF) component to the Regular Force (RegF) who are considered new recruits through external recruiting.

Critical Shortage: A critical shortage in an occupation is defined as an occupation that has less than 95% occupational health, a shortage of over 5% of the required trained members to meet its demands. The CAF reported in 2023-24 that despite a goal of only 5% of

occupations being critically short, the CAF had critical shortages in, incredibly, 72.9% of its occupations.[6]

Strategic Intake Plan (SIP): defined by CMP as the "aggregated quantitative statement of occupational intake required to achieve, grow, and maintain CAF occupational health and overall Regular Force strength."[7] In other words, the number of recruits required to maintain and grow the CAF. The SIP may be spoken of either as the CAF's aggregated SIP or a SIP specific to one of the CAF's occupations. SIP is composed of both new recruits from civilian life joining the occupation (*external recruiting*) or members transferring from other occupations (*internal recruiting*).

Assessment Methodology and Assumptions

The following assumptions have been made in the calculations that follow and the information used to reach conclusions herein.

1. This assessment is for Regular Force CAF occupations only and does not extend to the Reserve Force, which has wholly different training, strength, recruiting, establishment and retention characteristics.
2. Occupations are assessed holistically on a macro scale, and individual factors within each occupation (sub-occupations, specialty training, etc.) are not considered, except where known and indicated.

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[6] National Defence Government of Canada, 'Departmental Results Report 2023-24 - Core Responsibility 3: Defence Team', 19 December 2023, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/departmental-results-report/2023-24-index/results-core-resp/defence-team.html.
[7] National Defence Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan' (Commander Military Personnel Command, March 2024), 24.

3. The CAF RegF HR system, consisting of recruiting, training, retention and several other factors, is complex. The CAF's 114 occupations each have individual challenges in some or all of those factors and their challenges and how they meet them are interrelated. Wherever possible, trends are presented based on the specific subset of the data being analyzed, however it is acknowledged that this interrelation may present uncertainty in predicting the future state of each occupation based on past trends.
4. Growth in each occupation relative to each other is not known. Establishments are thus presented as unchanging during an occupation's recovery timeline when discussing its recovery. The CAF's indication that it intends to grow and the government's commitment to increasing spending indicate that if any change occurs it is likely to be increasing TEEs, rather than decreasing them; in that case recovery would take even longer than that of an occupation with a stagnant TEE.
5. Occupations are assessed as they are defined today, without awareness of ongoing occupation analyses or expected changes to occupational scope.
6. The CAF has signaled significant ongoing work to improve the recruiting and training effort, for the reasons outlined herein.[8] Some changes that could influence the results of these calculations and improve recovery time include shortening of the time to OFP (lessening the number of members who release before becoming trained); changes to compensation, benefits or working conditions (positively or negatively impact release rates and retention); and changes to the recruiting process (such as expediting it) which

[8] National Defence Government of Canada, 'Standing Senate Committee on National Security, Defence and Veterans Affairs (SECD) - Arctic Security - April 24, 2023, Section: CAF Recruitment and Retention', navigation page, 22 August 2023, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/proactive-disclosure/secd-april-24-2023/recruitment-retention.html.

could result in better achievement of SIP targets. The crux of the paper which is the inaccurate calculation of the SIPs themselves, is not affected by these initiatives, and the recommendations proposed would be unchanged regardless of if they are successful. Upcoming changes that may result in different pre-OFP release rates (such as those introduced by the recruit probationary period announced in Canadian Forces Military Personnel Instruction 05/24) will require more study to determine the recruit-to-OFP ratio and average timeline to OFP of new members after its implementation.[9]

7. Release rates from each occupation are assumed to remain relatively constant in an occupation as it recovers its health. In reality, some data has shown that healthier occupations with fewer vacancies may mean fewer members balancing additional work beyond their job description and a better community, resulting in lower release rates. Occupational health sustains occupational health, and release rates may decrease as an occupation gets healthier, or increase as members see their occupation getting unhealthier.[10] However, without assuming a relatively constant release rate, it is not possible to estimate the number of members releasing or estimate a recovery timeline for an occupation. Some minor uncertainty in recovery needs and timeline may result from this effect.

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[9] National Defence Government of Canada, 'Canadian Armed Forces Military Personnel Instruction 05/24 – CAF Probationary Period', 18 December 2024, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/canadian-forces-military-personnel-instructions/caf-probationary-period.html.
[10] Personal observation of occupational health trends in RCN occupations. Two particular examples are observation of declining and unhealthy MS ENG and NCS ENG occupations, versus sustained health and low release rates in parent NAV ENG occupation; and release and transfer rates trending higher in unhealthier technical NCM occupations such as MAR TECH and W ENG TECH when compared to healthier operational NCM occupations such as SONAR OP.

8. Not all occupations recruit externally. Thus, several occupations have been deliberately omitted from this investigation. These include six supervisory occupations which only receive members from other trained occupations with no recruiting or BTL (NAV ENG, LEET, CE SUPT, AM SUPT, GOFO, CPO / CWO); one occupation which is being retired and which no longer recruits (STWD); one occupation which has no SIP and does not qualify members to OFP (SAILOR) and four new occupations which do not yet recruit (CI OP, SH OP, CAF INT, AOS TECH).[11] The other 102 occupations are considered herein.

A Short History of the CAF's Occupational Health

Tracking occupational health is done for the CAF writ large through the Chief of Military Personnel (CMP) by a section called Defence Personnel Generation Requirements (DPGR) which is assisted in making decisions by data derived by another CMP section, Defence Research Workforce Analytics (DRWA). Occupational statistics are derived from the CAF's HR software. In the general transition of the Government of Canada's HR and pay management software from Peoplesoft to the current HR-to-pay system, the CAF also transitioned to a pay system called Guardian, from which occupational health data is now derived by DRWA.[12] The two entities are assisted by defence research Defence Research and Development Canada (DRDC) scientists, many from the Director General Military Personnel Research and Analysis

[11] Each of the different occupations are not described or outlined herein, for brevity. More information on each, including a description of the work they do, can be found on DPGR's intranet site or the CAF recruiting website.
[12] National Defence Government of Canada, 'Audit of Civilian Pay Management', 19 November 2020, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/audit-evaluation/audit-civilian-pay-management.html.

(DGMPRA), who conduct specific occupational health related tasks and projects, including the design of occupational health modeling tools.

When Peoplesoft was active, occupational health was tracked by a report called the Production, Attrition, Recruiting, Retention and Analysis (PARRA), up until 2018. Since Guardian was implemented, a similar report called the Establishment Strength Report (ESR) has been released monthly, after 2019.[13] Data in these two reports is the primary resource used for analysis in this paper. Despite the changes in format, key indicators (including TES, TEE, occupational health, BTL, external recruiting rates and other factors) are shown in both and have been combined in data in this report that reaches back prior to 2019. Where data from fiscal year end does not exist in either the PARRA or ESR reports, it has been interpolated and is shown within tables for that year in *italics.* A more detailed description of the ESR can be found in Annex A.

Using this data, several macro trends can be observed. Table 1 on the following page shows that over the ten-year period 2014-2024, the CAF saw its TEE increase from 60418 to 63395, resulting in 2977 new jobs for trained RegF members.[14] In the same period, the TES decreased from 57449 to 52896, a loss of 4553 trained members available to accomplish those RegF jobs. Overall, this translated into a decrease in the CAF's overall occupational health from 95.1% to 83.4%, a loss of 11.6% of the RegF's ability to perform the jobs assigned to it over the period. In total, the CAF at fiscal year-end 2024 was unable to fill a total of 10499 (16.6%) of its trained RegF positions.

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[13] National Defence Government of Canada, 'Consolidated Production, Attrition, Recruiting, Retention and Analysis (PARRA) Report, Year End Occupational Health Data, 2005-2018', 2019.
[14] Compiled from PARRA and ESR data for FY ends. 2019 data is extrapolated.

Table 1: CAF TEE, TES and Occupational Health (TES/TEE), FY end 2014-2024[15]

	TEE	TES	TES/TEE
2014	60418	57449	95.1%
2015	60462	56779	93.9%
2016	60449	56255	93.1%
2017	60464	56088	92.8%
2018	60484	56279	93.0%
2019	*60947*	*56597*	*92.9%*
2020	61411	56916	92.7%
2021	61835	55764	90.2%
2022	62310	54362	87.2%
2023	62870	53514	85.1%
2024	63395	52896	83.4%

As shown above, all three Key Performance Indicators (KPIs) (needs for members, number of trained members to fill those needs, and health), continue to show signs of decline, each being at its most stressed level in the past ten-year period.

Unfortunately, some environments have been disproportionally impacted. The CAF divides its occupations into four environments with respective areas of responsibility. The four environments tracked by military occupational health are the Canadian Army (CA), Royal Canadian Navy (RCN), Royal Canadian Air Force (RCAF), and the Assistant to the Chief of Military Personnel (ACMP, representing support occupations including but not limited to health and dental, public affairs, legal, intelligence, military police, logistics, clerical and musical occupations, many referred to as “purple” trades). The data in Table 2 below shows the impact on occupational health across the four environments:

Table 2: Occupational Health Data, 2014-2024, by CAF Environment[16]

[15] Compiled from PARRA and ESR data for FY ends. 2019 data is extrapolated.
[16] Compiled from FY end data from PARRA and ESR reports. 2019 data is extrapolated. This data omits CAF RegF members in the GOFO and senior chief occupations.

	TEE				TES				TES/TEE			
	RCN	CA	RCAF	ACMP	RCN	CA	RCAF	ACMP	RCN	CA	RCAF	ACMP
2014	7499	21252	12627	18885	7419	20196	11888	17783	98.9%	95.0%	94.1%	94.2%
2015	7515	21179	12639	18975	7284	19762	11886	17683	96.9%	93.3%	94.0%	93.2%
2016	7548	21147	12536	19060	7121	19622	11900	17445	94.3%	92.8%	94.9%	91.5%
2017	7539	21124	12501	19136	6874	19702	11915	17424	91.2%	93.3%	95.3%	91.1%
2018	7430	21116	12465	19295	6814	20001	11760	17514	91.7%	94.7%	94.3%	90.8%
2019	*7488*	*21043*	*12460*	*19574*	*6783*	*19964*	*11712*	*17752*	*90.6%*	*94.9%*	*94.0%*	*90.7%*
2020	7546	20971	12455	19853	6753	19927	11664	17990	89.5%	95.0%	93.6%	90.6%
2021	7560	21045	12585	20048	6600	19461	11394	17727	87.3%	92.5%	90.5%	88.4%
2022	7578	21112	12741	20227	6477	18555	11086	17648	85.5%	87.9%	87.0%	87.2%
2023	7767	21163	12810	20524	6326	18378	10857	17367	81.4%	86.8%	84.8%	84.6%
2024	7933	21188	12871	20786	6152	18155	10858	17139	77.5%	85.7%	84.4%	82.5%

The data above confirms all four environments have declined in health over the period, with decreased ability of each environment to meet its assigned establishment. Of the aforementioned 2977 new establishment positions created in the CAF over the ten-year period, 1901 (63.9%) were created in ACMP. Of the 4553 lost members, 2141 (47.0%) were a decrease in the Army's TES and a further 1267 (27.8%) was a decrease in the number of trained members in the Navy. The Navy experienced the highest drop in its occupational health, losing 21.4% of its ability to fill its establishment over the period.

These statistics show that occupational health pressures are affecting the military across the board in all four environments, but affect some environments disproportionately more than others. The statistics above, and the almost three-quarters (72.7%) of the TES impact over the last 10 years being felt by two of the four services (CA and RCN, with one service, the RCN, the most critically unable to meet its TEE), are why this report will investigate those two services specifically with dedicated in-depth case studies in Part 2.[17]

[17] The combined Navy and Army losses of trained personnel in the period, a decline of 1267 and 2041 members respectively, represents 72.7% of the CAF's decline in TES of 4553, despite those two environments only representing 46.0% of the CAF's overall number of trained members in 2024.

These effects show some common trends that affect follow-on discussions on recruiting targets. For instance, all four environments show lower occupational health in their NCM cadre than in their Officer cadre, showing the ability to recruit and retain trained NCMs to meet the occupational demands in those areas is inferior to the ability to recruit and retain trained Officers.[18] This is despite the fact that NCMs take far less time in training to become trained to OFP (especially compared to officers on university training programs), and also may be recruited from a larger swath of the Canadian population (not requiring a university degree or ability to achieve one, for instance), meaning the pool of potential NCM recruits far exceeds that of Officer recruits. With more people to recruit from, and a more expedient training process, the fact that NCM health is consistently poorer points to systemic issues in NCM recruiting, specifically. As such, this report will put additional emphasis on challenged NCM occupations within the environments.

[18] More information can be found in Table 33 in Annex B to this document.

The Impact of Establishment Growth

The CAF's full RegF Establishment consists of two main subsections. First, the TEE, representing jobs assigned to trained members of the RegF occupations, is a measure of the human resources the CAF needs to be employed today in order to meet its current missions, the main focus of this investigation. Second, Establishment Overhead, consists of other in-uniform but unemployable personnel, such as those on long term sick or injured status (Supplementary Personnel Holding List, SPHL), soon to released (Non-Effective Strength, NES) or in pre-employment training on the Basic Training List (BTL).

Establishment growth in the CAF is expected in the near to mid-term, as announced by senior leadership.[19,20] Table 3 below shows that the TEE has been growing in all four environments since 2015, but most significantly in the Assistant Chief of Military Personnel (ACMP) environment.

Table 3: CAF Establishment Growth by Environment, 2015-2024[21]

Fiscal Year End	RCN	CA	RCAF	ACMP	Total CAF
2015	7515	21179	12639	18975	60308
2024	7933	21188	12871	20786	62778
Change	+418	+9	+232	+1811	+2470
% Change	5.6%	0.0%	1.8%	9.5%	4.1%
% of CAF Change	16.9%	0.4%	9.4%	73.3%	

The more personnel are needed within the CAF, the more recruits are needed proportionally to support that growth. As such, in a working system, SIPs should on average

[19] Pugliese, 'Canadian Military Plans to Boost Ranks to 86,000 Personnel'.
[20] Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution'.
[21] Data compiled from 2015 data from Consolidated PARRA Report and 2024 Establishment Strength Report, both published by the CAF DRWA. Note, ACMP occupations have composed 73.3% of the CAF's growth, 1811 of the 2470 net new jobs created over the period.

show growth over time if TEE grows, to provide the HR system the ability to reach equilibrium at a higher target trained population. A higher TEE, means more members trained to OFP, which also means more will be needed at any time in an occupation's BTL to support this increased throughput to OFP.

A Note on Releases

Releases (members leaving the forces) and transfers (members switching occupations within the forces, which for trained members means becoming untrained and thus unemployable until trained in the new occupation) are the two ways in which the total number of members in an occupation decreases. Together they represent the total attrition from an occupation.

To predict attrition, releases are tracked over time. DPGR tracks trends between 3 and 10 years, and applies that data to determine future releases from the occupation.[22] Straver and Boileau report a 7.7-8.0% release rate from the CAF's occupations over the 2017/18 to 2022/23 period, which differs depending on the environment, shown in Table 4 below.[23] Note this table includes solely releases, not combined releases and transfers, which would represent the total attrition from the environments[24]. The Army and RCN show the highest release rates.

Table 4: Average RegF Release Rates by CAF Environment, 2017/18 to 2022/23[25]

OA	Average, FYs 17/18-19/20		Average, FYs 20/21-22/23	
	Releases	Attrition Rate	Releases	Attrition Rate
RCN	581	7.0%	638	7.7%
CA	2197	8.9%	2141	9.2%
RCAF	962	6.5%	910	6.4%
A/CMP	1557	7.2%	1630	7.5%
Reg F Total[6]	**5426**	**7.7%**	**5430**	**8.0%**

[22]Derived from CAF Long Range Planning Model function. As the number of trained members in an occupation decreases, the same rate of release applied against a smaller principal will predict a lower number of releases or transfers within the occupation. More detail can be found in Annex C.

[23] Michelle Straver and Meagan Boileau, 'Attrition by Occupation, Designated Group, and Years of Service Group' (Defence Research and Development Canada, December 2023).

[24] Despite Table 4 citing an "attrition rate" the numbers cited of releases represent solely a release rate. The authors state "The number of releases (and corresponding attrition rates) reported include all releases from the Reg F (including component transfers to the Primary Reserve), and do not include transfers between occupations." Further, the calculation may show underestimation errors; as an example, if the 638 average releases from the RCN are compared against an average size of the RCN in total members over the three year period of 7874 (averaging the three FY end totals) this would represent a 8.1% release rate, vice the shown 7.7%. Both show that DGMPRA may be undervaluing the number of people leaving occupations, and thus, the number of recruits needed to replace them.

[25] Straver and Boileau, 'Attrition by Occupation, Designated Group, and Years of Service Group', 2.

Applying a historical release rate to an occupation can be used to predict its future releases, though the adage “past performance is not indicative of future results” may apply. The danger of this approach is that applying the same rate to a lower strength gives a lower number of members releasing in an occupation, the unhealthier it gets. As such, recruiting failures may appear on the surface to become less concerning as the occupation becomes unhealthier, because the number of nominal releases out of the occupation and out of its trained cadre decreases to a level that meets a low recruiting intake.

Falling occupational health, resulting in releases shrinking to a level that meets recruiting, brings an occupation to a steady state. It does not, however, demonstrate that recruiting is becoming successful, nor that the recruiting problem is becoming less pronounced. This simply lengthens the time that poor occupational health will persist. Recruiting thus has two roles in an understrength occupation; recruit the normal requirement to sustain that occupation at a steady state trained strength at full health, plus, recruit additional members temporarily until the occupation recovers. This is what recovery looks like; recruiting solely to sustain the current strength in an unhealthy occupation, neither accomplishes recovery or the steady-state requirement.

Release to an immediate pension is of specific note. Eligible members who complete 25 years of service under a term of service titled an Intermediate Engagement 25 (IE25) are eligible to release under this popular release item. Members may sign an IE25 after completion of their Variable Initial Engagement (VIE) contract, typically a minimum of three years. These members are entitled to a pension on release provided they have met the requirements of the Canadian

Forces Superannuation Act.[26] These requirements changed on 1 Mar 2007 from needing 20 years of service to be eligible for a pension (on a contract known as an Intermediate Engagement 20, IE20) to 25 years of service (an IE25), a process that was consolidated in CAF Military Personnel Instruction (CFMPI) 05/05, released 14 Jan 2005.[27] The reason this is important in the release (and thus recruiting) discussion, is that, accounting for the VIE time, members who were eligible for an IE20 all released prior to about 2022, and members who fell under the new IE25 regime will begin being eligible for pensions in about 2027; a five-year gap where the CAF benefitted from not having members release from IE contracts.[28] Releases are thus in a natural low, and future years could see higher release rates as members regain the ability to release to an immediate pension, resulting in more recruits needed today and in future to sustain the needs of the service.

No release discussion is complete without mention of retention as an avenue for increasing occupational health. Increasing retention is a valuable factor in the calculation, decreasing the attrition rate and allowing lower recruiting intake to provide a chance at recovery. Nevertheless, retention discussions often do not consider members' release items. This paper defines two key release categories as retainable and unretainable releases, which other authors have termed avoidable and unavoidable turnover.[29] RCN studies have shown that over the past

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[26] Legislative Services Branch Government of Canada, 'Canadian Forces Superannuation Act', 21 June 2019, https://laws-lois.justice.gc.ca/eng/acts/C-17/index.html.
[27] National Defence Government of Canada, 'Canadian Armed Forces Military Personnel Instruction 05/05 – Terms of Service', 28 February 2025, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/canadian-forces-military-personnel-instructions/terms-of-service.html.
[28] Thomas Juneau and Philippe Lagassé, *Canadian Defence Policy in Theory and Practice*, vol. 2 (Cham, SWITZERLAND: Palgrave Macmillan, 2023), 34, http://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=30766915.
[29] Juneau and Lagassé, 2:31.

ten years, approximately 40% of releases fall into the former category.[30] Retaining those members is of great value, however, most releases are not members who are retainable. Further, applied against the CAF's total 5430 releases as per Table 4 above, if rates are consistent across environments, this would represent 2172 RegF members who could conceivably be retained per year. Even if every member who could be retained, was retained, the CAF SIP Scorecard for FY 23/24 shows an external target of 7475 recruits, an intake of 4880 members, and a gap of 2595 needed external recruits – significantly exceeding the potential recovery from retention initiatives[31].

[30] Cumming, 2023. Compiled by the author from release data provided to DNP from DRWA on all RCN occupations 2013-2024. Retainable release items (4B, Complede Fixed Period of Service but not entitled to an immediate annuity, and 4C, other causes) comprised 40.9% of releases, with other release items comprising the remaining 58.1% of unretainable releases (30.3% Item 3, Medical; 18.0% Item 4A, Release to Immediate Annuity; 9.9% Item 5, Service completed; the residual percentages under items 1, Misconduct, 2, Unsatisfcatory Service, or 6, Death).

[31] Director Personnel Generation Requirements Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard', 31 March 2024.

A Note on Transfers

When transfers between occupations occur, this has an impact on the health of different occupations, advantaging some occupations and disadvantaging others. DPGR's 2023-24 In/Out report shows that the majority of transfers occur from Army and Navy occupations, to Air Force and ACMP occupations (with 81.2% of transfers occurring into these two environments).[32] 1054 total transfers occurred in 2023/24, representing approximately 1.7% of the CAF's personnel.[33] These movements are summarized below in Table 5.

Table 5: Net Transfers Into and Out of RegF Environments, FY 2023/24[34]

	Officer Transfers			NCM Transfers			
Environment	**VOT**	**COT**	**Comm**	**VOT**	**COT**	**Comm**	**Total**
RCN	-24	-30	5	-15	-26	-19	-109
CA	-11	-107	40	-194	-4	-46	-322
RCAF	16	-37	60	84	7	-49	81
ACMP	17	141	110	127	56	-101	350
Totals	-2	-33	215	2	33	-215	0

VOT: Voluntary Occupation Transfer
COT: Compulsory Occupation Transfer
Comm: NCM Commissioning Plan

As Table 5 above shows, transfers cushion occupations from poor external recruiting performance in the Air Force and ACMP, but exacerbate the inability to recruit externally into Army and Navy occupations. This means recruiting for occupations in the Army and Navy must be almost exclusively filled through external means. Combined with higher release rates in those environments as described in the previous section, this trend demonstrates a critical need to focus on external recruiting in those two environments.

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[32] Director Personnel Generation Requirements Government of Canada, 'DPGR In-Service "In-Out" Count, End March 2024', 31 Mar 24.
[33] Compiled from DPGR's FY end In / Out report and FY End Establishment and Strength Report. This represents total transfers divided by total population; rates for transfers from TES alone, are likely to exceed this rate, with many programs requiring members be trained in the losing occupation prior to applying.
[34] Government of Canada, 'DPGR In-Service "In-Out" Count, End March 2024'. A negative number shows a net transfer out of the occupation, a positive number, net transfer in.

Transfers may help some occupations grow their total numbers, but have other negative effects on the occupational health of the CAF. Most transfers occur after a member achieves OFP in their occupation, meaning they change from a trained member who can work in an establishment position in one occupation, to an untrained member on the new occupation's BTL who cannot. In cases where the transfer is under a UTPNCM program or similar officer training program, it may be over 6 years dependent on the occupation (four years university, plus two or more years of occupational training) to reach OFP in the gaining officer occupation before the member can perform a function in the new TEE. As a result, a from-the-ranks officer with 25 total years of service, entitled to release to an immediate pension, may have spent less than half of that time working in Establishment positions, considering BTL training in both the NCM and officer occupations, periods of leave, etc.

Members who transfer tend to move in two other directions. First, members tend to move from more technically difficult occupations into less technical more generalist occupations, especially if their transfer is compulsory (for example, as a result of a training failure in training for a technical occupation). Second, members tend to move from more operational higher-tempo occupations to lower-tempo occupations with a more domestic focus. The latter is both for those seeking lower tempo work, and because transferring into a technical occupation from a generalist occupation takes significantly longer and those occupations have Occ Spec entry standards which are higher. Technical NCM training, which is more likely to have specialty qualifications within the training plan, also tends to be significantly longer than non-technical training, so recruits are harder to generate into trained members and then may be occupied in advanced

specialty training programs for more of their trained (working) career.[35] SIP targets must be developed to reflect the reality of these trends.

[35] As an example, the RCN's MAR TECH occupation was recently assessed as having up to three times the total training length within their career as a combat operations occupation such as SONAR OP, with MARTECH having not only the typical Rank Qualification courses (RQs) but several Unique Specialty Qualifications (USQs), Common Specialty Qualifications (CSQs), Experience Qualifications (EQs) and On-the-Job Training (OJT) requirements at each rank band. RQs are also significantly longer in technical occupations. Members may fail any of these individual training serials, resulting in a compulsory occupation transfer to a lower complexity occupation, or else a stagnating career that may result in a more likely release or transfer.

The Impact of Releases and Transfers

Planning targets for recruiting and training must take releases and transfers into account, and must focus on a recovery plan that accounts for the steady state rates expected when an occupation is healthy. As presented, if an average of 7.7% of the CAF releases per year and 1.7% transfers out of occupations back into a BTL, the CAF would experience a roughly 9.4% overall decrease in personnel due to attrition in a typical year, and assuming similar rates apply to those either on BTL and on TES, thus must also replenish its TES at least at that rate to sustain the current occupational health (and at a higher rate, to recover).[36]

The CAF's Long-Range Planning Model (LRPM), a CMP tool used in each occupation to plan long-term occupational health, shows that this kind of recovery rate is not the case in many occupations.[37] The model does not recover occupations linearly or in a timely fashion, appearing more focused on year-over-year improvement in occupations than on long-term recovery. The model assumes release rates will apply as they have in the past, but does not assume poor recruiting achievement rates will persist. Thus, recruiting targets may be set lower, and are not conservative in nature, assuming the system will perform at the best-case scenario. Part 2 of this paper will address modelling issues, show disparities between occupations and environments and show that the LRPM system is not working as intended to create targets that both replace releases and transfers, and also recover occupations. Recruiting targets do not reflect what is needed to recover quickly, at a standard rate, or with growing establishments considered. This key error allows targets to be set with a false sense of success if the target is achieved. It also

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[36] 7.7% from Straver and Beaulieu, 1.7% transfer rate derived from 23/24 DPGR In / Out Report.
[37] There is no formal reference or policy for the content or format of the LRPM, an internal modelling tool to DPGR. Its content is loosely described in CFMPI 01/08. However, an example with explanation may be found in Annex C of this document.

means recovery rates are different for every occupation, lower for those that are unhealthier, and in some cases even if the target is hit, recovery may not be possible after considering releases, transfers, and recovery. This will be explored further in the case studies below.

A final point is on the release and transfer rates of members who are untrained. In NCM occupations with a basic training program that is often a year or less, in general about 90% of recruits will become trained within a year.[38] Some allies have seen even higher attrition early in members' careers in challenged environments.[39] For officer occupations, which may take in some cases as many as eight years for a member on a university training plan, meaning the typical release rate applies every year for each year the member is untrained.[40] The CAF's average release rate of 7.7%, applied to an occupation with an eight-year training timeline to OFP, would mean only about 53% of the recruited members would remain and become occupationally functional – not including the number of transfers either voluntarily or due to failures in training.[41,42] How many years of BTL time attrition rates will apply is a major factor and must also apply to occupational recruiting targets.

In summary, occupational health recovery only occurs when the number of trained members generated exceeds the number of trained members releasing and transferring, and the growth in the occupation's trained establishment. If recovery is planned based on the releases and transfers in an unhealthy occupation today, the rate of recovery will factor a lower outflow,

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[38] A one-year application of a combined 9.4% release and transfer rate.
[39] Steve Benyon, 'The Army Is Losing Nearly One-Quarter of Soldiers in the First 2 Years of Enlistment | Military.Com', 7 Mar 25, https://www.military.com/daily-news/2025/03/07/army-losing-nearly-one-quarter-of-soldiers-first-2-years-of-enlistment.html?amp=.
[40] For example, for a Naval Warfare Officer on a university training plan may take four years to complete university and four years to complete several ashore and at sea employment training phases.
[41] Straver and Boileau, 'Attrition by Occupation, Designated Group, and Years of Service Group'.
[42] 7.7% compounded annually applied for eight years results in a cumulative release rate of 47.3%.

and recruiting targets will be lower than necessary to affect an appropriate recovery. When planning recruiting targets and planning for the CAF's recovery overall, DPGR must consider the release and transfer rate applied to the occupation *when it is healthy,* planning for higher nominal release and transfer values from the occupation, and plan SIP targets for a recovery rate that returns occupations to health expediently, after factoring attrition rates over the time a member of the occupation will spend on BTL.

A Note on the Basic Training List

The Basic Training List (BTL) consists of the members of an occupation who have been recruited, but are not yet trained to their OFP and as such do not yet form part of the occupation's TES. In the case of Officers, this includes members on the Subsidized University Training List (SUTL). The members of the occupation who are on the BTL / SUTL are managed by the Canadian Defence Academy (CDA) or their environmental training institution. They are unable to be employed within the occupation's establishment in any formal manner until they achieve OFP. The CAF's BTL size at FY end since 2006 is shown below in Table 6:

Table 6: CAF BTL/SUTL by Environment and Overall, FY End 2006-2024[43]

FY End	RCN	CA	RCAF	ACMP	CAF
2006	1268	3259	2230	1329	8086
2007	1240	3892	2372	1546	9050
2008	1240	4152	2867	1707	9966
2009	1197	3075	2863	1842	8977
2010	1828	4279	2634	2665	11406
2011	2084	3479	2393	2069	10025
2012	1726	2647	2117	1893	8383
2013	1409	2796	2005	1768	7978
2014	1160	2553	2407	1885	8005
2015	958	2571	2433	1640	7602
2016	933	3190	2454	1890	8467
2017	1008	3155	2406	2195	8764
2018	1134	3151	2527	2564	9376
2019	DATA UNAVAILABLE - GUARDIAN MIGRATION				
2020	1144	3146	2501	2829	9620
2021	1253	2630	2258	2705	8846
2022	1406	3297	2344	2450	9497
2023	1327	2586	2302	2267	8482
2024	1369	2605	2387	2536	8897

[43] Compiled from Consolidated PARRA report and FY end Establishment and Strength Reports for given years. Note this does not include a few members assigned to BTL / SUTL in senior ranks.

Table 6 above shows several concerns, especially the health of ACMP occupations' BTLs relative to the other environments and the growing share of the overall CAF BTL that ACMP occupations hold, despite in many cases those occupations not being the primary generator to a member's first occupational OFP (e.g. SOF or other occupations with high transfer in rates). The Army's low BTL indicates short-term decline is likely in its occupational health, with few members in the training system relative to historical numbers. Though the Navy and Air Force BTLs are about average historically, each has an Officer occupation which consists of a large percentage of members on the BTL (NWO in the Navy and PILOT in the Air Force, which compose 43% and 25% of their environmental BTLs respectively)[44]. This means that other occupations in those environments have lower BTLs compared to historical averages. That the CAF overall is about average in BTL size today, in a personnel crisis where ideally BTLs would be overflowing to facilitate future recovery, is also concerning and shows the effects of recent recruiting underachievement. It should also be clear from Table 6 above that the current CAF BTL is over 2000 fewer than what the CAF has been able to process in the past.[45]

The current process of recruiting and training members is sensitive to the size of the BTL and limits recruits based on training capacity, which will be shown in the case studies following. There are no defined metrics or limits for an appropriate size of an occupation's BTL, and as each occupation has a different training timeline and thus a different residence time on their BTL, the size of each must necessarily be different. That said, more members enrolled in the forces and on the BTL, waiting for training, is a significantly better problem than empty BTLs

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[44] Director Research Workforce Analytics Government of Canada, 'Establishment and Strength Report - Breakdown by MOSID - March 2024', 31 Mar 24, Sourced from DPGR SharePoint.
[45] The max historical BTL of 11406 in 2010, significantly exceeds the 2024 FY end BTL of 8897; so, the CAF training system has sustained a BTL up to 28% higher.

and reflects more immediate potential for recovery of the occupation. Recruiting targets set through the LRPM assume the occupation's training system has a defined capacity or throughput rate. This is an upper limit to inform recruiting, *but is ineffective where that rate does not recover the occupation to TEE.* If the SIP is artificially lowered so as not to stress training, this compounds the issue of the training system not being ready to train the number of members required in order to recover. This is a key incorrect assumption of the SIP generation process.

Though training must not be the rate limiting step to recovery, there must be a reasonable limit to demands on training systems. Occupations that have recruited well, whose BTL has grown over time, may reach a point at which the BTL continues to grow and the training system is unable to react. In these rare cases it may be prudent to hold back on recruiting until the BTL clears and returns to a manageable size; however, this should be done as the exception rather than the rule, and should be clearly briefed to senior leaders to trigger development of a strategy for the training establishment to clear the backlog. More importantly, where BTLs are undersized (as most are), an effects-based, KPI-triggered response plan to attract members to those occupations is key to ensure recruiting issues do not persist. As the CAF intends to grow, BTLs in the affected occupations must also be intended to grow, unless training time or pre-OFP release rates decrease significantly. Thus, recruiting and its targets also must plan to grow to support a larger needed pool of trainees.

Defining each occupation's target BTL is not the primary focus of this paper, however further work should be done on defining an annual process to identify and sustain an ideal BTL for each occupation and to identify those whose BTLs are significantly over or undersized. Annex D outlines the mathematical relationships between an occupation's BTL and other aspects of occupational health including the SIP and Establishment, and proposes calculation of an ideal

BTL. The current and ideal BTL must be a factor in the recovery process which is begun with recruits, through a calculation that ensures occupational recovery of the TES; in other words, the number of members trained per year who come off the BTL must meet or exceed the trained members releasing and transferring out of the occupation per year, as a core principle. Once this generation requirement is created, training must adjust to this requirement or recovery cannot take place. The system as currently designed recognizes that the fewer trained members there are (the unhealthier the occupation is) the fewer will be releasing, and thus the fewer must be trained from the BTL to replace them ("break even" / steady state). This is incorrect, the system must not be designed for this insufficient recovery. Each occupational training establishment must be resourced for the training rate and BTL required to sustain the occupation's TES at its TEE, including factoring in the TEE that will be assigned to it through occupational growth planning, and intended recovery to reach that TEE. Though there is a function for this within the LRPM, it is not well populated and may not reflect either leadership's communicated growth intentions, or leadership's occupational recovery intentions.[46]

[46] Based on experience working with RCN future fleet, which has been unable to accurately define a ten-year plan for establishment without deciding crewing models for future ships or knowing how many of them will be purchased.

PART TWO: DEVELOPMENT OF A STRATEGIC PLAN FOR SIP

Assessing the CAF's Recent Strategic Intake Plans

The overall CAF SIP is a total of the combined internal and external SIPs of each individual occupation. Summed up at the end of each fiscal year and presented by DPGR in a SIP Scorecard, the overall SIP and the CAF's performance through CFRG of meeting that SIP at the end of each fiscal year is presented in Table 7 below. An explanation of the content found in the SIP Scorecards can be found in Annex B.

Table 7: Year End SIP Performance, All CAF Occupations, 2010-2024[47]

FY End	SIP	Intake	%
2010	8598	8525	99.15%
2011	6385	6155	96.40%
2012	5394	4948	91.73%
2013	5894	5530	93.82%
2014	6075	5160	84.94%
2015	6347	5710	89.96%
2016	7568	5938	78.46%
2017	8150	6153	75.50%
2018	8426	6661	79.05%
2019	7407	6800	91.81%
2020	7723	6777	87.75%
2021	5628	3198	56.82%
2022	7807	6209	79.53%
2023	8277	5513	66.61%
2024	8627	5934	68.78%

This data clearly demonstrates that the CAF has not been successful in achieving its recruiting targets since 2010 and declined significantly after 2013 (corresponding with the

[47] Combined from FY end SIP Scorecards, 2010-2024, as published on DPGR Intranet SharePoint. 2021 is considered an outlier due to the impacts of the COVID-19 pandemic; without that year considered, the last two fiscal years have had the lowest achievement in the period.

closure of 12 of the CAF's 38 recruiting centers).[48] That performance has been decreasing consistently since then, and taking out the outlier 2021 year where performance was impacted by the COVID-19 pandemic, performance in the last two years has been historically low.

In recent history, the two methods of recruiting (internal, recruiting to CAF occupations from other occupations within the CAF through transfers, and external, recruiting from the civilian world or component transfer from the ResF) have performed differently. Internal recruiting has significantly outperformed external recruiting, with more members typically applying for competitive occupation transfer programs than are allowed to transfer through those programs each year; for instance, in 2023/24 where the internal achievement rate was 91% overall and 110% into CMP occupations.[49] External recruiting has underperformed. Data in Table 8 below shows a downward trend in external recruiting across all environments that mimics the overall SIP achievement, and further proves that the two last years were critically low in recruiting overall and even lower in external recruiting.

Table 8: External Recruiting Performance, All CAF Environments, End FY 2016-2024[50]

	External Intake Plan (SIP)				Intake Achieved				Achievement Rate				Total CAF Performance		
Year	RCN	CA	RCAF	CMP	RCN	CA	RCAF	CMP	RCN	CA	RCAF	CMP	SIP	Intake	%
2016	595	2769	752	921	489	2771	876	1205	82.2%	100.1%	116.5%	130.8%	5037	5341	106.0%
2017	883	2754	1129	1814	561	2372	914	1496	63.5%	86.1%	81.0%	82.5%	6580	5343	81.2%
2018	1016	3172	1114	1823	709	2790	941	1689	69.8%	88.0%	84.5%	92.6%	7125	6129	86.0%
2019	751	2827	980	1597	600	2578	1027	1660	79.9%	91.2%	104.8%	103.9%	6155	5865	95.3%
2020	937	3078	894	1707	656	2562	869	1571	70.0%	83.2%	97.2%	92.0%	6616	5658	85.5%
2021	834	2018	301	1714	461	851	286	702	55.3%	42.2%	95.0%	41.0%	4867	2300	47.3%
2022	1115	2932	948	1775	812	2441	744	1228	72.8%	83.3%	78.5%	69.2%	6770	5225	77.2%
2023	1035	3046	1121	2009	581	1997	760	1167	56.1%	65.6%	67.8%	58.1%	7211	4505	62.5%
2024	985	3205	1210	2075	637	2082	920	1241	64.7%	65.0%	76.0%	59.8%	7475	4880	65.3%
	Note: 2021 is considered an outlier due to the COVID-19 pandemic														

[48] David Pugliese, 'Canadian Military Scaling Back at Some Recruiting Centres | Ottawa Citizen', Ottawa Citizen Online, 18 June 2015, https://ottawacitizen.com/news/politics/canadian-military-scaling-back-at-some-recruiting-centres.
[49] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'.
[50] Compiled from End FY SIP Scorecards for the given years. End FY 20-21 is considered an outlier, due to the impacts of the global COVID pandemic.

Though the purpose of this paper is not to address recruiting shortcomings in meeting the SIP, these trends in external recruiting are key in understanding the clear issue with the external SIP as it is now calculated. It does not accurately define recruiting needs, as it is unable to react to either the growth of demand in trained members, to poor performance in previous years, or to the decrease in TES that the CAF has experienced.

Based on the trends above, any reasonable person would conclude that, after successively missing targets for the recruits needed in previous years, the CAF's demand for recruits has increased and thus (without other changes to training or occupation structure) the intake requirement must increase proportionally to compensate. Instead, data shows that SIPs vary widely from year to year and do not show a consistent trend reflecting the CAF's growing needs. Table 9 below shows the SIP compared against the CAF's overall occupational health. Decreasing health and increasing establishment demand (overall, a decrease in the CAF's occupational health over the period from 1 Apr 2020 to 1 Apr 2024) appear to have had no noticeable impact; the SIP has not increased proportionally to compensate for the growing number of people the CAF is missing. Despite the number of trained members decreasing by 3701, and the number of establishment positions increasing by 2448, representing a total increased demand for trained employees of 6149 (with more than that number of recruits required to create those trained members), the SIP has only increased by 548 during this time period. As shown in the right-hand column, the SIP assigned as a percentage of the TEE has remained almost unchanged during this time period as losses have mounted and demand has grown, and in 2023-24 was lower than the previous two years. No clear response to the increasing gap is evident within the system, without which the CAF cannot recover.

Table 9: Next FY SIP vs Previous Year End Occupational Health, 2020-2025[51]

	FY End Occ Health				Next FY SIP	
Year	**TES**	**TEE**	**Growth**	**TES/TEE**	**SIP**	**SIP % TEE**
2020	56597	60947	463	92.9%	7723	12.7%
2021	56916	61411	464	92.7%	5628	*N/A*
2022	55764	61835	424	90.2%	7807	12.6%
2023	54362	62310	475	87.2%	8277	13.3%
2024	53514	62870	560	85.1%	8627	13.7%
2025	52896	63395	525	83.4%	8271	13.0%

The trend above of the CAF SIP can only result in an assessment that the system used to develop the SIP is unable to react quickly and correctly to adjust demand for recruits in response to demand for trained members. As the occupational health of the CAF has plummeted, the SIP has stayed stagnant and has even decreased over the past three years. The trends of growing establishment, shrinking TES, and poorer performance in external SIP all appear to be continuing and as such these issues will exacerbate occupational health until corrected. Further, as there is a time delay between recruits and graduating classes from OFP, CAF TES may not yet have felt the full effects from the historical recruiting failures in 2022/23 and 2023/24, making immediate correction of the SIP calculation a criticality.

Assessing the CAF's Current Recruiting Strategy

A 2018 Associate Deputy Minister (Review Services) (ADM(RS)) study cited that "while attraction initiatives at the national and local recruitment centers exist, there is no formally documented strategic level plan to guide military recruitment."[52] No evidence exists to suggest a

[51] Occupational Health data from listed FY end Establishment Strength Reports. Next FY SIP from following FY end SIP Scorecard.

[52] National Defence Government of Canada, 'ADM(RS) Review: Advisory of the Military Recruitment Process', 20 July 2020, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/audit-evaluation/advisory-military-recruitment-process.html.

comprehensive strategy has been developed or published since that finding. The CAF has many initiatives such as Operation Generation and others which target specific functions within the recruitment process for improvement.[53] Within those initiatives, key direction is lacking in how occupations can or should set SIP targets; how those targets should react as part of the personnel system (e.g. an occupation) degrades; how recruiting allowances or incentives should be managed and scaled as occupational health degrades; how occupational training systems must be resourced and must respond based on occupational health and intended BTL or recovery; and most critically, what the recovery intentions for either occupations or the CAF writ large are or should be.[54] Reconstitution efforts are focused on meeting targets by changing existing processes and policies, not on revisiting or revising targets or understanding the effects they will have on occupations if met.

CMP publishes an annual letter announcing the intended SIP for the following year, which includes an Annex that indicates future SIP planning is being done through the LRPM process. Despite this, it appears clear that calculation is not being looked at in a lens of strategic recovery. The excerpt below in Table 10 is from the CAF's 2024/25 plan to show intended SIP.

[53] National Defence Government of Canada, 'Recruitment and Retention', navigation page, 22 August 2023, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/proactive-disclosure/secd-april-24-2023/recruitment-retention.html.
[54] Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution'.

Table 10: Comd MilPersCom Horizon 2 SIP, 2024/25 to 2033/34, as of Mar 24[55]

Intake Plan Summary/Sommaire Inscrits FY 24/25 to 33/34	FY/AF 24/25	FY/AF 25/26	FY/AF 26/27	FY/AF 27/28	FY/AF 28/29	FY/AF 29/30	FY/AF 30/31	FY/AF 31/32	FY/AF 32/33	FY/AF 33/34
Horizon Two SIP - Based on AMORs, LRPM Analysis and OA Discussions PRS de l'horizon 2 - D'après les discussions des AGPM, l'analyse des MPLT et l'EAGPM										
Offr External / Externe off	1,435	1,419	1,413	1,429	1,379	1,388	1,356	1,343	1,341	1,350
NCM External / Externe MR	5,720	5,826	5,719	5,695	5,594	5,599	5,517	5,345	5,300	5,270
REG FORCE EXTERNAL TOTAL / TOTAL EXTERNE F REG	**7,155**	**7,245**	**7,132**	**7,124**	**6,973**	**6,987**	**6,873**	**6,688**	**6,641**	**6,620**
Offr In-Svc / Off en service	429	390	395	394	358	367	367	365	364	372
NCM In-Svc / MR en service	687	662	670	592	589	586	588	584	580	572
REG FORCE IN-SVC TOTAL / TOTAL SERVICE INTERNE F REG	**1,116**	**1,052**	**1,065**	**986**	**947**	**953**	**955**	**949**	**944**	**944**
Offr Total / Total Off	1,864	1,809	1,808	1,823	1,737	1,755	1,723	1,708	1,705	1,722
NCM Total / Total MR	6,407	6,488	6,389	6,287	6,183	6,185	6,105	5,929	5,880	5,842
REG FORCE TOTAL EXT & INT / TOTAL FORCE REG EXT & INT	**8,271**	**8,297**	**8,197**	**8,110**	**7,920**	**7,940**	**7,828**	**7,637**	**7,585**	**7,564**

That plan clearly shows a declining SIP over time, indicating a declining recovery rate as the CAF theoretically recovers, instead of recovery at a consistent, maintained rate, then transition to a lower steady state. This declining SIP contrasts with policy direction to "increase the capacity of the Canadian Armed Forces Leadership and Recruit School to accommodate the *increased* number of recruits associated with a larger force size."[56] Instead of recovering as quickly as possible and returning to the CAF's desired health, the SIPs shown above represent a system that dampens recovery rates as health recovers. Within control theory, this would be referred to as an over-damped system, as shown in Figure 1 below, a recovery which takes the longest of possible system responses. A system that follows a critically damped recovery is fastest, smoothest and best able to recover the CAF's personnel system from its present deficiency.

[55] Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan'. Horizon 2 refers to a ten-year horizon.
[56] National Defence Government of Canada, 'Strong, Secure, Engaged: Canada's Defence Policy', 10 June 2024, 22, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/canada-defence-policy.html.

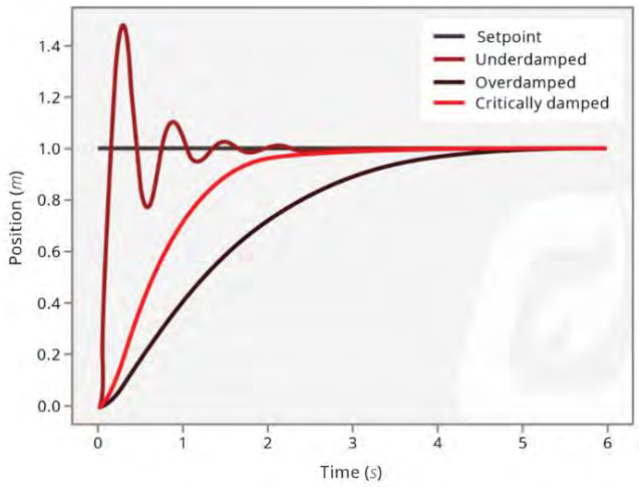

Figure 1: Representation of Systemic Response to a Change in Set Point.[57]

Dampening recovery instead of maximizing the intended recovery of the CAF does not make sense for a number of reasons. First, a moderate intake shields the training system from the shock of a large intake of members to the BTL, but also does not maintain a steady state requirement or set the mission that the system's components need to meet, creating a moving target instead of a setpoint which can be planned for long term. Declining SIP means declining recruits going through CFLRS and schools, instead of maintaining or increasing current throughput as *Strong, Secure, Engaged* directs.[58] This means schools would right now be at max capacity, instead of increasing to sustain an intended, higher, throughput requirement. Second, the CAF's communicated planned growth (manifested in a higher TEE) would require more recruits to meet more job demands; SIP does not rise proportional to the known growth of the CAF planned to happen over this period[59]. Third, the moderate need communicated only marginally exceeds the CAF's releases, and if SIP is not achieved (as previous sections have

[57] Profire Team, 'What Is a PID Controller?', Profire Energy, 5 June 2023, https://profireenergy.com/what-is-a-pid-controller/.
[58] Government of Canada, 'Strong, Secure, Engaged'.
[59] Pugliese, 'Canadian Military Plans to Boost Ranks to 86,000 Personnel'.

shown, has been the recent norm for the CAF especially in external recruiting), recovery also would not be achieved; there is no evident risk or uncertainty built into the direction and a moderate intake plan is at higher risk of failure if intake targets are not met.

Other issues are clear within the CMP predictions in Table 9 above, such as nominal transfers which show in that table to decrease over time, when more people in the CAF logically means more transfers (and releases) would be expected in the future.[60] Increasing transfers results in more need for external recruits, not less, as members return to a new BTL and have more years in which they can potentially release while on BTL than members who do not transfer.

Compared to historical SIPs for 2020-2025 above in Table 9, values in Table 10 for future SIPs are similar or lower – representing a business-as-usual plan for intake, not what should be expected of a response to a personnel crisis. The CAF's release and transfer rates above, applied to the January 2025 TES of 52455, would result in over 5000 occupational exits per year; a TEE of 71500 as directed by CAF reconstitution would result in over 7000 members per year leaving their occupations at steady state.[61,62] Clearly, an external recruiting target of 7245 or less, decreasing below the nominal release average at TEE and factoring that targets are unlikely to be achieved, is not going to maintain the CAF, let alone allow for a timely recovery of over 11000 personnel.[63]

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[60] Derived from decreasing in service (internal) SIP planning.
[61] Director Research Workforce Analytics Government of Canada, 'Establishment and Strength Report - Breakdown by MOSID - January 2025', 31 Jan 25, Sourced from DPGR SharePoint.
[62] Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution'.
[63] The Jan 25 ESR shows intended trained strength of 63531. Subtracting the January 2025 total strength of 52455 gives a gap of 11076 trained members. This does not include the additional gap of a potential expansion of the BTL to meet the needs of an expanded TEE, which comprises the reported 86000 total RegF members. That size cadre with a similar release and transfer rate, should expect occupational exits averaging over 8500 members per year and must compensate with a similar sized SIP, plus what is necessary for the intended recovery rate.

As mentioned, CAF recruiting to meet the overall SIP consists of internal recruiting and external recruiting. These are vastly different and though both factors affect occupational health, their differences mean they should not be combined and presented as a measure of success. High internal transfer numbers in some environments and occupations boost the overall recruiting intake, resulting in an inflated sense of success. Some occupations are for more likely to meet internal transfer goals than others, with more inherent demand, so this portion of SIP is not able to be met equally by all occupations. A future strategy could consider solely meeting occupational needs through external recruiting and then, any internal recruiting adding to an occupation providing needed recovery. This would quickly fill desirable occupations with high inbound transfers, then allowing the recruiting group to focus on those occupations which are challenged in both external recruiting and via transfer. This would also take away from the current "everything, everywhere, all the time" problem.[64] Focusing recruiting efforts on what can be done, and grouping what can't into areas of human resource need, would allow for two solutions. First, areas which do not recruit well could be contracted from civilian public service or private industry (decreasing the TEEs of occupations which don't recruit well, and recovering the occupational health ratio via decreasing the denominator). Second, fewer areas of focus would mean an increased ability to petition for targeted benefits for those occupations that need them most, increased resources put towards examining the structural or cultural issues plaguing those occupations, and the ability to more specifically target recruiting focus in those areas.

Recent criticism of the recruiting system has primarily been focused on either the CAF's inability to attract new applicants, or to process those applicants through the recruiting process to

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[64] Referring to the aforementioned 72.9% of CAF occupations at critically short status.

become enrolled employees. Some critics have denounced the current recruiting strategy as largely passive, relying on applicants to take the initiative to apply.[65,66] Others believe that the current number of applicants is effective to meet the CAF's needs, if only they can be processed faster, and thus that there is no need to put concern or additional resources towards attractions as a result.[67] Neither contemporary approach considers that the number asked for in the SIP may not be correct, meaning even if applicants are attracted, apply and are processed to the CAF's target, recovery may or may not be possible. One key source has recognized this, however; a 2016 Auditor General of Canada report to parliament which states:

> *"We found that although the Regular Force had mechanisms in place to define its recruiting needs, those needs were not reflected in recruitment plans and targets. Instead, recruitment targets were based on National Defence's capacity to process applications and enrol and train new members. Furthermore, we found that the total recruitment targets had been met by enrolling more members than had been set as targets in some occupations, leaving other occupations significantly below the required number of personnel."*[68]

It is unclear if any action was taken in response to this concern, and case studies below will show both that has persisted since 2016 and that the effect is throttling the recruiting target as the CAF's needs grow.

Recruiting today is especially focused on recruiting diverse individuals to meet CAF culture goals, with Canada's Defence policy stating a need to "better forecast occupational requirements and engage in more targeted recruiting, including capitalizing on the unique talents

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[65] Ed Young, 'Recruiting and Retention in the Canadian Armed Forces', Royal United Services Institute of Nova Scotia, 7 October 2019, https://rusi-ns.ca/recruiting-and-retention-in-the-canadian-armed-forces/.
[66] LCdr P J Antonew, 'The CAF, Still Recruiting in the Wrong Century', *Canadian Forces College Service Paper* 40 (2016): 4.
[67] Taylor, 'ON TARGET: Canadian Armed Forces: The Numbers Don't Add Up', espritdecorps, 16 October 2024, https://www.espritdecorps.ca/on-target-4/on-target-canadian-armed-forces-the-numbers-dont-add-up.
[68] Office of the Auditor General of Canada Government of Canada, 'Report 5—Canadian Armed Forces Recruitment and Retention—National Defence', 29 November 2016, https://www.oag-bvg.gc.ca/internet/english/parl_oag_201611_05_e_41834.html.

and skill-sets of Canada's diverse population."[69] Juneau and Lagasse believe "discrimination, implicit bias, harassment or lack of sense of belonging or alienation" are reasons increasing the proportion of diverse members in the CAF is particularly challenged.[70] These reasons ignore the most basic issue, however; that diverse members are more highly represented in areas of the country the CAF does not readily recruit from. To meet diversity targets recruiting must realize the critical issue: military members largely are sourced from traditional strongholds of recruiting, outside of urban areas, from areas with homogenous (traditionally white) backgrounds.[71] In contrast, statistics show that 73% of Canadians live in cities, with 87% of those between 20 and 55, who can be recruited into the CAF living in those areas; Figure 2 below shows the disparity in age and the higher proportion of working age persons in cities.[72,73] A future strategy must overwhelmingly focus on urban recruiting for all CAF occupations, and strive to recruit a contingent which represents not only the gender and racial makeup of Canadians, but also the areas of the country in which they live. Recruiting diverse urban Canadians, and many of them, will both increase representation in the ranks and allow for the recovery the CAF needs.

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[69] Government of Canada, 'Strong, Secure, Engaged', 12.
[70] Juneau and Lagassé, *Canadian Defence Policy in Theory and Practice*, 2:38.
[71] Matthew S. Goldberg et al., 'Geographic Diversity in Military Recruiting' (Institute for Defence Analyses, November 2018), 18. This reference focuses on US military recruiting history; no similar study could be found with Canadian demographic statistics on recruits or CAF employees.
[72] Statistics Canada Government of Canada, 'The Daily — Canada's Large Urban Centres Continue to Grow and Spread', 9 February 2022, https://www150.statcan.gc.ca/n1/daily-quotidien/220209/dq220209b-eng.htm.
[73] Statistics Canada Government of Canada, 'Annual Demographic Estimates, Rural and Small Town and Functional Urban Areas: Interactive Dashboard', 13 January 2022, https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2021030-eng.htm.

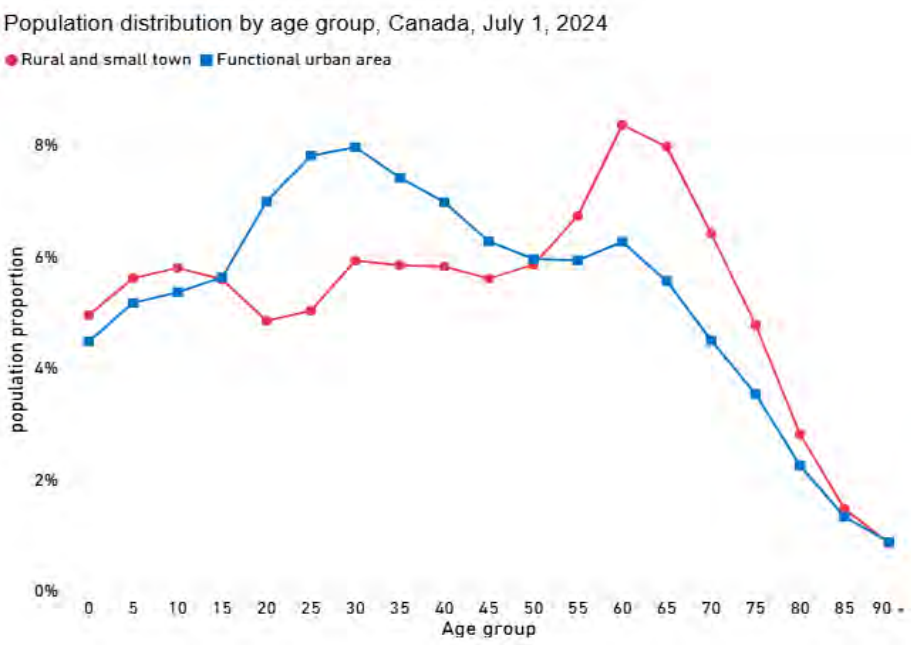

Figure 2: Population Distribution by Age, Rural and Small-Town v. Urban Area[74]

The lack of a recruiting strategy, especially one focused on urban areas where Canadians live, has resulted in Canadians taking the opportunity for military employment less seriously as time passes. Just as recruiting has not kept up as the CAF's needs for sailors, soldiers and aviators has grown, the CAF's representation within the Canadian public has plummeted over a 30-year period since the end of the Cold War, even as the population has significantly grown (and urbanized). Table 11 below shows the number of citizens per RegF member across the Five Eyes community of allies, over the past 30 years.

[74] Government of Canada. With 73% of Canadians in cities, and cities much younger than rural areas as shown above, when compiled, the distribution confirms 87% of potential CAF recruits aged 20-55 live in functional urban areas.

Table 11: Citizens Per Full-Time Military Member, Five Eyes, 1989-2019[75]

	1989	1999	2009	2019
US	109	175	197	240
UK	179	270	348	449
AUS	242	339	392	423
CAN	306	428	515	527
NZ	250	400	400	555

The CAF's representation has dropped to a level where it represents the second poorest participation across that alliance, with only isolated New Zealand representing poorer RegF military participation, and representation has almost halved overall during the period.

This discussion is important to the development of recruiting targets for two reasons. First, it speaks to an increasing inability to speak to and recruit the population, with over twice the number of available civilians to recruit, but performance dropping; neglecting to factor this into recovery planning, including modelling without considering multiple outcomes for recruiting achievement rates, is unwise. Second, it shows that should a mobilization occur to bring the CAF to previous levels in response to a global or national conflict, the CAF's current unreadiness would mean a challenge significantly higher than its key allies in order to reach the same level of personnel to support operational capability. In summary, there are more Canadians but fewer military members, this represents a significant challenge for recruiting, and it could be much more significant and the recruiting intake requirement much higher if the demand on the military were to increase in an elevated national security environment. This reinforces the need to have an accurate target identification system for every occupation, one which is not reliant on resources but instead on the needs of the service.

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[75] Compiled from population and military size charts for each country, from Macrotrends.net.

Planning for Occupational Recovery: Issues in CAF Occupational Health Modeling

CMP uses the Long-Range Planning Model (LRPM) to plan aspects of occupational health for each occupation. This model is comprehensive but has limitations that will be shown in the case studies below. The model relies on a user to input a desired 10-year SIP target, then, will return a recovery plan if that SIP is met moving forward. There are several issues with this construct.

First, the model relies on SIP being met to show the recovery plan; but most environments and occupations rarely meet the SIP target (as shown in Table 2), and the model has no contingency or risk planning built into it to accommodate this deviation.

Second, the model plans recovery using a calculation that factors historical release rates from occupations; however, the model does not factor a net transfer rate, to differentiate between occupations which are net losers through the internal transfer process or those that are net winners. Thus, it treats a technical NCM occupation like MARTECH, which has an annually allocated internal SIP target for transfer into the occupation which is never met, similarly to an in-demand occupation like SOF or CL DVR, which regularly meet their incoming transfer targets. The model assumes both will be successful in achieving the internal target, when in reality the former is realistically unable to do so.

Third, the model is centered on recovery at today's occupational health, meaning, based on today's TES. Using the current TES as a baseline means using a release rate application on a lower principal than that which will be experienced by the occupation if it was healthy. This means unhealthier occupations, who have a release rate applied against a lower number of members, show recovery when fewer recruits are received which still exceed that lower release value, compared to those that are healthy. In other words, two occupations with the same TEE,

one of which is at 100% (with a higher number of releases) and one of which is at 70% (with a lower number of releases but a higher nominal need for members), will see the opposite intended impact from SIP planning. The latter will show recovery at a lower SIP target, and thus, will receive less focus from CFRG when it should receive more. The former must have more recruits to stay healthy with a larger number of nominal releases and thus, will have a higher target set through the LRPM process.

Finally, that the recovery rate is a result and not a key input with the SIP target as the result, shows that there is no comprehensive top-down plan, and every occupation if it met its SIP would be recovering at different uncontrolled rates. This is not indicative of an appropriate strategic management process for the CAF's personnel situation as a whole.

A final issue with the LRPM is its reliance on a static training capacity for each occupation. If recruits are received in an occupation above the normal rate, the occupation will in reality respond by surging training capacity to accommodate and clear its BTL. This ability is not reflected in the LRPM, which assumes training capacity is unchanging and factors recovery as a result. As the training capacity is static and a system assumption, the resulting number of recruits has a limit. This has two negative impacts, decreasing needed SIPs and resulting in no plan to increase training capacities. Any recovery planning should first identify a recovery target, then the SIP to achieve that target, and then finally identify the training targets at various points in a recruit's career. In a recovery scenario, the CAF must be prepared to surge training temporarily and compensate the training system with resources to accommodate a higher BTL while recovery occurs. Training systems should have pre-plans to accommodate increased or decreased numbers of recruits, to higher SIPs and beyond the SIP; for instance, by expanding max course loads, leveraging additional resources or rationalizing training objectives to ensure the system

can intake the required number of members. Without that logical process in place, and without those risks and opportunities planned for in advance, recruiting and training systems are both at risk of being unable to accommodate occupations' needs.

Occupational health modelling also relies on the Occupational Structure Sustainability Model (OSSM), a separate model to determine if occupations at full health are sustainable in terms of rank structure and promotion rates. This model has uses, but would be better served if it was able to be used both at TEE and at the current TES. The lower an occupation's health is, especially in a set rank band, the higher the percentage of members in that rank band that must be promoted per year to the next higher rank, resulting in increasing challenges. The OSSM model should be expanded to include this and to determine key performance indicators of rank instability. For instance, the RCN's MAR TECH occupation is currently at less than 60% in the ranks of MS and above, resulting in high percentages of members being promoted in each band every year (and thus, lower quality members being promoted than if the occupation was healthy).[76] At some point this occupation, if its upper ranks become too short, will no longer be able to promote enough to replace those above, and will become unsustainable; but where this point is, is not communicated by the OSSM model. Serré claims models cannot account for these conditions; the OSSM model can be expanded to do so. [77]

The faults in the CAF's occupational health models were an observed result of the Auditor General in 2016, as quoted in the previous section[78]. It appears clear the

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[76] Government of Canada, 'Establishment and Strength Report - Breakdown by MOSID - January 2025'.
[77] Lynne Serré, 'Managing the Personnel Resources of a Military Occupation: Attrition Forecasting and Production Planning', July 2019, 17.
[78] Government of Canada, 'Report 5—Canadian Armed Forces Recruitment and Retention—National Defence'.

recommendation was not corrected as the models above show that they are indeed primarily resource-driven rather than recovery- or needs-driven. Neither adjusts correctly to compensate for occupations at lower and decreasing occupational health. The inordinate impact of this on some environments and occupations, will be unfortunately shown in the following sections to persist today.

Some authors have outlined many of the factors identified here and yet have supported the existing status quo modelling, such as Serré, who also supports training being the rate limiting step in recovery.[79] These statements however decline to assess the risk of occupations at low health and the impacts when training system capacities do not accomplish the goals of a mathematical recovery. The SIPs must be calculated to replace attrition, and if increasing numbers of members are required in growing occupations, those with high attrition rates, long training times, poor net internal transfer rates, or poor structural sustainability, the training system must still respond to the realities of the occupation.

The use of the models above and their limitations result in HR issues which affect different occupations differently. The case studies that follow show the two most challenged environments and the differing circumstances of their occupations, comparing healthy and unhealthy occupations, officer and NCM, technical and non-technical. They should show the reader that the issues within the models described here, manifest in trends which support a conclusion that corrections must be made to the LRPM, OSSM and other key policies to restore

[79] Serré, 'Managing the Personnel Resources of a Military Occupation: Attrition Forecasting and Production Planning'.

control of occupational recovery. The CAF must move away from resource-driven recruit targets and towards mission-driven targets, as the Auditor General recommended in 2016.[80]

[80] Government of Canada, 'Report 5—Canadian Armed Forces Recruitment and Retention—National Defence', 5.

Case Study: The Royal Canadian Navy as Uniquely Challenged in Recruiting

From a personnel perspective, the Royal Canadian Navy is the most challenged of the four environments within the CAF's RegF. Data in Table 12 below shows that between 2013 and 2024, the Navy lost 1260 trained sailors (a decrease of 17.0%) while growing by 401 establishment positions (5.3%). This affected occupational health on both sides of the ledger, with health decreasing from a high of 98.9% in 2014 to 77.5% in 2024. Put frankly, the Navy lost 21.4% of its ability to meet its HR commitments in the last ten years.

Table 12: RCN RegF Occupational Health, All Personnel, 2013-2024[81]

FY END	TES	TEE	TES/TEE	Total
2013	7412	7532	98.4%	9006
2014	7419	7499	98.9%	8752
2015	7284	7515	96.9%	8389
2016	7121	7548	94.3%	8190
2017	6874	7539	91.2%	8026
2018	6814	7430	91.7%	8094
2019	6711	7562	88.7%	*8026*
2020	6752	7546	89.5%	7957
2021	6600	7560	87.3%	7908
2022	6477	7578	85.5%	7960
2023	6326	**7767**	81.4%	**7750**
2024	6152	**7933**	77.5%	**7648**

The final column above shows that the total number of sailors (trained and untrained) has fallen every year since 2013 except 2018, indicating strongly that recruiting has consistently not kept pace with releases and transfers from the Navy. Further, the trend appears to be continuing. Figure 3 below overlays TEE (orange), TES (blue) and total members (grey) in the RCN over the last 11 years. Two key takeaways are evident from this representation. First, the divergence of

[81] Compiled from year end PARRA and ESR report data for each year. Bolded values indicate years since 2023 where the total number of members is less than the number of trained positions, meaning even if every sailor were trained, not all jobs could be filled.

the TEE and TES show the widening gap between what jobs are needed and who is trained and ready to work in those positions. Second, in FY 2022-23 the total number of members fell below the establishment for the first time. After this point, even if the RCN was able to train every member, it would be unable to meet its demands.

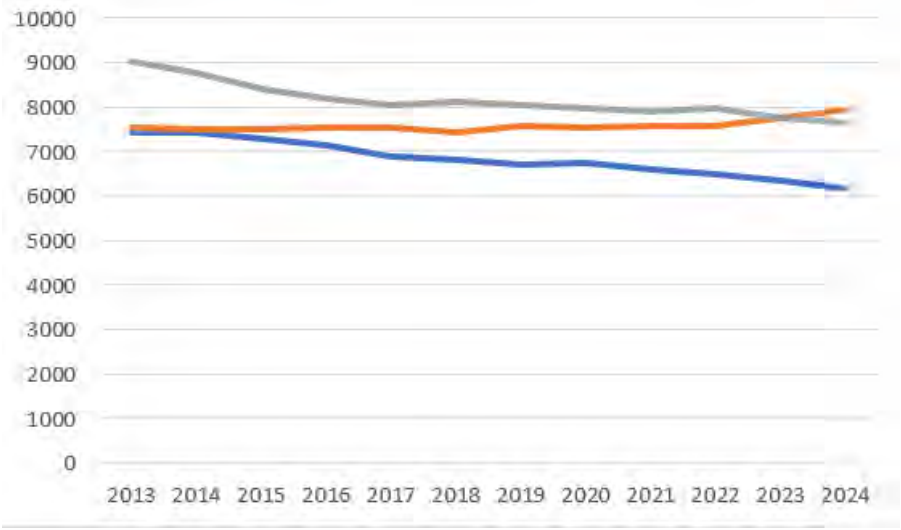

Figure 3: RCN RegF TEE, TES and Total Members, All Occupations, FY End 2013-2024[82]

Recruiting achievement for the RCN, divided into internal and external subsections, shows in Table 13 below that recruiting rates have indeed fallen consistently since 2012.

[82] Compiled from Year End PARRA and ESR data.

Table 13: SIP, Intake and Achievement, RCN RegF, All Occupations, FY End 2010-2024[83]

	SIP			Intake			Rate of Achievement			
	Internal	External	Total	Internal	External	Total	Internal	External	Total	
09/10	138	1162	1300	87	1192	1279	63.0%	102.6%	98.4%	
10/11	171	1070	1241	148	1084	1232	86.5%	101.3%	99.3%	
11/12	81	695	776	79	683	762	97.5%	98.3%	98.2%	
12/13	65	601	666	65	544	609	100.0%	90.5%	91.4%	
13/14	127	576	703	101	425	526	79.5%	73.8%	74.8%	
14/15	111	555	666	74	456	530	66.7%	82.2%	79.6%	
15/16	107	699	806	59	448	507	55.1%	64.1%	62.9%	
16/17	171	883	1054	67	562	629	39.2%	63.6%	59.7%	
17/18	120	1016	1136	60	643	703	50.0%	63.3%	61.9%	
18/19	105	751	856	68	600	668	64.8%	79.9%	78.0%	
19/20	109	937	1046	62	656	718	56.9%	70.0%	68.6%	
20/21	55	834	889	70	461	531	127.3%	55.3%	59.7%	
21/22	101	1115	1216	86	812	898	85.1%	72.8%	73.8%	
22/23	116	1035	1151	86	581	667	74.1%	56.1%	57.9%	**w NEP**
23/24	100	985	1085	57	457	514	57.0%	46.4%	47.4%	63.6%
Average			**919**			**673**			**73.3%**	

The fiscal years ending between 2012 and 2015 showed very low SIP targets were set for the Navy, and then, even those were poorly achieved, setting the environment on a downward spiral. Though SIPs were raised beginning in 2016, they have not yet approached steady state values seen prior to 2011. Further, they have not risen in a proportionate manner, fluctuating around an average of 1026 over the last 9 years.[84] This value is despite SIPs clearly not being met every year as per the column on the right of Table 13.

Tables 12 and 13 paint a picture of decreasing recruiting effectiveness over the period, increasing demand for sailors in the RCN establishment, and consistently declining occupational health and total number of both trained and untrained members in the RCN. Yet, despite every

[83] Compiled from year end SIP Scorecard data for shown fiscal years. The 23/24 value shows the health both with and without Naval Experience Program (NEP) recruits counted. NEP recruits enter into the SAILOR occupation, but must transfer within a year to another occupation; and so, will be counted both against external SIP in the first year, and internal SIP in the next. There is no guarantee they will continue in a naval regular force occupation, and both other environments and the ResF component (or full release) are available to them at the end of the program. As a result, they do not constitute members recruited and working towards the RCN's TES until transfer to another RCN RegF occupation occurs.

[84] Based on the total CAF SIPs for the last seven years, averaged.

HR KPI getting worse, SIPs have not been adjusted to compensate. This is clearly shown with the 2024 SIP of 1085 being only marginally above the average of the last 9 years. The 2024 SIP is also lower than both the 2023 and 2022 SIPs, despite historically low SIP achievement in both years and approximately a 4% occupational health drop in each year. These trends and the critical inflection point of total members dropping below TEE should have triggered a strong response from the recruiting system, however, as shown in Table 13, SIPs instead decreased since this occurred and have been stagnant over the period as the gap in HR has increased.

Mimicking a trend seen in other environments, the RCN's NCM cadre has borne the brunt of the losses during this time, as shown in Table 14 below. Despite NCMs being 78.5% of the Navy's total establishment, NCM TES has decreased by 1121 trained members (88.9% of the Navy's trained loss). The RCN in 2024 has 1334 fewer total NCMs than in 2013, 98.2% of the Navy's total decrease of 1358 over that time.

Table 14: RCN RegF Occupational Health, All NCM occupations, 2013-2024[85]

FY END	TES	TEE	TES/TEE	Total
2013	5949	6044	98.4%	6809
2014	5931	6016	98.6%	6588
2015	5762	6017	95.8%	6283
2016	5614	6029	93.1%	6142
2017	5408	6002	90.1%	6003
2018	5373	5882	91.3%	6055
2019	5270	6008	87.7%	*5984*
2020	5343	**5931**	90.1%	**5912**
2021	5197	**5922**	87.8%	**5854**
2022	5118	**5927**	86.4%	**5827**
2023	5003	**6091**	82.1%	**5565**
2024	4828	**6235**	77.4%	**5475**

[85] Compiled from Year End PARRA and Establishment and Strength Reports. Bolded values indicate a year where the total number of members was less than the TEE, meaning even if every member was trained, all establishment positions could not be filled.

Table 15 below shows that RCN NCMs have been critically unable to recruit, resulting in this loss – averaging 60.8% over the past 11 years without a single year exceeding 75.5%, and averaging 46.4% over the past two years into NCM occupations. The past four years have also seen three of the four lowest years in nominal intake into RCN NCM occupations over the period since 09/10.

Table 15: RCN NCM Recruiting, 2009/2010 to 2023/24, All Occupations[86]

		SIP			Intake			Rate of Achievement			
		Internal	External	Total	Internal	External	Total	Internal	External	Total	
RCN NCMs	**09/10**	89	913	1002	47	949	996	52.8%	103.9%	99.4%	
	10/11	130	821	951	104	835	939	80.0%	101.7%	98.7%	
	11/12	60	556	616	49	552	601	81.7%	99.3%	97.6%	
	12/13	40	444	484	44	392	436	110.0%	88.3%	90.1%	
	13/14	92	454	546	75	312	387	81.5%	68.7%	70.9%	
	14/15	82	465	547	53	360	413	64.6%	77.4%	75.5%	
	15/16	78	611	689	39	380	419	50.0%	62.2%	60.8%	
	16/17	137	720	857	37	437	474	27.0%	60.7%	55.3%	
	17/18	92	826	918	34	486	520	37.0%	58.8%	56.6%	
	18/19	75	594	669	40	440	480	53.3%	74.1%	71.7%	
	19/20	75	746	821	37	489	526	49.3%	65.5%	64.1%	
	20/21	34	650	684	36	341	377	105.9%	52.5%	55.1%	
	21/22	72	887	959	37	597	634	51.4%	67.3%	66.1%	
	22/23	70	752	822	39	359	398	55.7%	47.7%	48.4%	**w NEP**
	23/24	61	716	777	37	307	344	60.7%	42.9%	44.3%	66.9%

In general, NCM occupations have similar short OFP achievement timelines (approximately at the one-year point, when members are through the basic training, naval environmental training and their first occupational training phases), with the exception of those recruited into trained entry programs. As a result, the intake requirements for these occupations can be compared against one another from a recruiting target perspective. The RCN's NCM

[86] Compiled from year end SIP Scorecards for listed years. 2023/24 differentiates recruiting into core RCN occupations and overall including into the RCN's Naval Experience Program (NEP). This is because members who decide to remain with the RCN RegF transfer into the core RCN occupations after the program is complete, being counted against CMP's external recruiting target for the RCN in the year they are recruited into that program and internal recruiting target for the RCN the next year when they transfer.

occupations are plotted below in Table 16 and sorted by those occupations with the lowest SIP to TEE ratio (SIP % TEE), a measure of the ratio of recruits sought against the trained establishment those members must be recruited and trained to fill.

Table 16: RCN NCM Establishments and SIPs, Comparing SIP / TEE Ratios, FY End 2024[87]

	Occupational Health Data			Recruiting Data			
Occupation	**TEE**	**TES**	**TES/TEE**	**SIP**	**Intake**	**Total**	**SIP % TEE**
W ENG TECH	1153	838	72.7%	118	53	44.9%	10.2%
MAR TECH	1920	1429	74.4%	215	54	25.1%	11.2%
NES OP	374	330	88.2%	45	17	37.8%	12.0%
NCI OP	492	425	86.4%	62	29	46.8%	12.6%
CL DVR	139	96	69.1%	22	12	54.5%	15.8%
NAV COMM	787	619	78.7%	125	55	44.0%	15.9%
SONAR OP	406	383	94.3%	65	47	72.3%	16.0%
BOSN	718	627	87.3%	125	79	63.2%	17.4%
	Data as of 31 Mar 24						

Several relationships are clearly shown. First, a correlation exists between the size of the occupation and the low SIP to TEE ratio. The two largest occupations are, relative to their sizes, given the smallest SIP targets. This trend is consistent across all the Navy's occupations with the exception of CL DVR, an outlier due to changes made to that occupation's OFP in 2022, as well as the fact that its intake is largely from internal transfers, unique in the Navy's NCM occupations.[88] Second, the more technical an occupation, the smaller the SIP to TEE ratio, demonstrating the recruiting system's inherent hesitation to recruit members who are harder to recruit, despite a need to do so. Two of the three most challenged occupations are the lowest two recruiting performers, while two of the three healthiest occupations have the largest SIP to TEE ratios. This means, relative to TEE, recruits are being sought most heavily in two of the three

[87] Compiled from End year ESR and SIP Scorecard data.
[88] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'.

RCN occupations which need recruits least. Third, performance of the recruiting system correlates to the RCN's SIP to TEE ratios; the poorer the recruiting system was able to recruit in 23/24, the lower the ratio of an occupation's SIP to TEE. This reflects a potential bias in the system to pursue the lowest hanging fruits most heavily and focus on the hardest recruits least, relative to their respective establishments.[89] Finally, there is a large disparity between occupations overall, with BOSN getting over 70% more SIP relative to its TEE size than W ENG TECH.

Based on the data above, the RCN's W ENG TECH occupation has the lowest SIP to TEE ratio at only 10.2%, and is thus best suited as the example to describe the effects of under-assigning SIP to an occupation. With a TEE of 1153 members, applying a release rate of 7.7% and a transfer rate of 1.7% per year (as described in previous sections) would result in a release rate of 108 members per year in a typical year. A SIP of 116 members, even if all those members made it through training (many release in the first year) would result in a recovery of 8 members per year in the occupation's trained strength. In reality, with an average of a year of time to train a W ENG TECH to OFP, with some members releasing in basic training or transferring occupations while untrained, the application of the release and transfer rate to the SIP for that year the average member spends on the BTL, this would only result in 105 members per year trained to OFP if that SIP of 116 were met – a net change to TES annually of -3 and an

[89] Though the aforementioned 2016 Auditor General's report also made this finding, it did not speculate on the motive for recruiting targets overvaluing easy-to-recruit occupations in the SIP. There are a number of possible reasons. One is, recruiting easier recruits leads to better achievement rates overall, reflecting better on the system (a confirmation bias). Another possibility is that the CAF command is overrepresented by operational occupations, most familiar with easier-to-recruit non-technical NCM occupations, leading to a tendency from senior leaders to support those occupations first. Likely, the low health of technical NCM occupations and the issues with LRPM modeling discussed herein are the primary factors, with lower releases from lower health occupations resulting in erroneously identified lower SIPs.

inability to recover the occupation. Factoring in negative impacts like pre-OFP release, expected growth of TEE, stress in an understrength occupation increasing release rates, and the fact that some of the members may be recruited into lengthy subsidized education entry programs lengthening their time to OFP, the occupation is unable to recover with a sustained SIP of 116 members per year, even if that SIP is met successfully.

Another topical occupation is MAR TECH. In Table 16 above, MAR TECH stands out as challenged from an HR perspective as the largest occupation by establishment in the RCN, and it has the second lowest SIP / TEE ratio, by far the lowest 23/24 recruiting achievement and the third lowest occupational health, missing over 500 trained members.[90] MAR TECH is a growing occupation, unlike W ENG TECH which has a TEE which has shrunk considerably over the past several years. MAR TECH's recruiting success is shown below:

Table 17: MAR TECH Recruiting Achievement, 09/10 to 23/24[91]

		SIP			Intake			Rate of Achievement		
		Internal	External	Total	Internal	External	Total	Internal	External	Total
MAR ENG + MAR EL + H TECH	09/10	20	229	249	9	237	246	45.0%	103.5%	98.8%
	10/11	33	200	233	37	207	244	112.1%	103.5%	104.7%
	11/12	16	172	188	11	167	178	68.8%	97.1%	94.7%
	12/13	10	111	121	10	89	99	100.0%	80.2%	81.8%
	13/14	32	140	172	20	119	139	62.5%	85.0%	80.8%
	14/15	20	208	228	19	140	159	95.0%	67.3%	69.7%
	15/16	24	230	254	13	153	166	54.2%	66.5%	65.4%
	16/17	39	264	303	10	183	193	25.6%	69.3%	63.7%
MAR TECH	17/18	32	253	285	8	209	217	25.0%	82.6%	76.1%
	18/19	26	195	221	7	120	127	26.9%	61.5%	57.5%
	19/20	26	244	270	7	114	121	26.9%	46.7%	44.8%
	20/21	5	101	106	7	88	95	140.0%	87.1%	89.6%
	21/22	15	221	236	4	157	161	26.7%	71.0%	68.2%
	22/23	13	212	225	7	73	80	53.8%	34.4%	35.6%
	23/24	13	202	215	1	53	54	7.7%	26.2%	25.1%
	Average			221			159			72.0%

[90] Derived from SIP Scorecard and ESR data for FY end 24.
[91] Compiled from year end Strategic Intake Plan Scorecards for indicated years.

Historical achievement shows that the system has been increasingly failing this occupation, with SIPs dropping but achievement still unable to hit lower targets. Internal transfer in particular averages very low intake compared to the allocated SIP, demonstrating the one-way nature of transfers from technical to non-technical occupations discussed above. With an occupation of 1920 established positions, applying a 7.7% release rate and 1.7% transfer rate gives an average number of members leaving the occupation of 181 members. This number was quoted recently by the Commander of the Royal Canadian Navy (CRCN), who reflected that a trained MAR TECH leaves the Navy about once every two days.[92] Based on the 23/24 achievement in Table 17 above, a missed target of 161 total MAR TECH recruits over the year meant the recruiting system missed a needed replacement about once every two days as well.[93]

With a 2024/25 SIP of 211 members, assuming an average of one year to OFP and a 9.4% attrition rate, 191 members would achieve OFP per year if that SIP was achieved. Thus, with a net change of TES of +10 per year, based on a Jan 2025 shortage of 582 trained sailors, MAR TECH would recover in 58 years provided SIPs were met.[94] Any minor amount that the SIP is missed, though it may appear to represent a high success rate to CMP, would result in an unrecoverable occupation. For example, if the occupation achieved 90% SIP, 189 sailors coming into the occupation, this would appear to be a recruiting success, but in fact would result in an unrecoverable TES, being below even the number of trained members releasing at TEE. Low SIP targets undersell occupation recovery requirements, may appear relatively successful even when

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[92] *The State of the Royal Canadian Navy*, 2023, https://www.youtube.com/watch?v=FuD6Q1HXsKw.
[93] A SIP of 215, less an intake of 54.
[94] The MAR TECH example is explained further in Annex D.

the occupation remains failing, and misinform senior leaders of the current gap. They represent an underdamped response.

Recruiting deficiencies have hit the RCN hardest in terms of the size of the BTL, the reserve of members in the queue to become trained members. The BTL for the RCN over the past ten years broken down by occupation is shown below in Table 18.

Table 18: RCN BTL Over Time, By Occupation, FY End 2014 to 2024[95]

	Officers			NCMs									Totals		
FY End	NWO	NCS ENG	MS ENG	BOSN	NCI OP	NES OP	NAV COMM	SONAR OP	CL DVR	W ENG TECH	MAR TECH	Other	Officer	NCM	Total
2014	385	143	126	61	30	17	30	27	9	159	137	36	654	506	1160
2015	345	127	103	35	15	12	39	14	10	96	148	14	575	383	958
2016	327	115	90	55	20	34	16	23	6	79	149	19	532	401	933
2017	315	127	104	66	12	22	28	32	5	88	184	25	546	462	1008
2018	363	124	92	72	27	19	26	27	8	52	290	34	579	555	1134
2019	*DATA UNAVAILABLE - GUARDIAN MIGRATION*														
2020	393	123	111	61	66	51	37	47	8	91	146	9	627	516	1143
2021	384	132	128	49	87	65	56	59	13	96	180	3	644	608	1252
2022	490	134	141	64	76	50	87	70	9	95	178	11	765	640	1405
2023	573	124	157	72	32	32	54	68	21	77	110	6	854	472	1326
2024	585	104	144	71	23	23	44	42	26	85	56	166	833	536	1369
											2024 NCM BTL less "Other" Occupations			370	

Table 18 above shows that though RCN Officer occupations are healthier than historical average, the NCM BTL is only 57% of its maximum over the 10-year period. MAR TECH has led this decline to the greatest extent, with a BTL only 19% the size of its maximum due to consistent recruiting issues. Other RCN occupations with significant TES shortages such as NAV COMM and W ENG TECH only show an average sized BTL in 2024, significantly below their maximums over the period; meaning, the RCN NCM training system has shown capacity to train significantly more members, if only they could be recruited.

A final note on the RCN's SIP calculation perspective is the schism between what is communicated by the occupation authority as the Navy's needs, and what is published by CMP

[95] Compiled from Consolidated PARRA Report and FY End Establishment Strength Reports for the years shown. "Other" occupations consist of STWD, a retired occupation, and SAILOR, a new trial occupation representing the Navy's Naval Experience Program. MAR TECH prior to 2017 consisted of three occupations, H TECH, E TECH and MAR ENG, whose BTLs have been combined to show the total in FYs 2014-2017 for that occupation.

as the CAF's direction for targets to CFRG. The RCN had a SIP of the following for its occupations in 2023/24, with the rates achieved by CFRG on the Navy's behalf in that fiscal year shown in the right-hand column:

Table 19: 2023/24 RCN RegF SIPs and Achievement Rates, By Occupation[96]

	2023/24 SIP			Occupational Intake			Achievement		
Occupation	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**
MS ENG	49	13	62	23	3	26	46.9%	23.1%	41.9%
NCS ENG	42	11	53	13	6	19	31.0%	54.5%	35.8%
NWO	178	15	193	114	11	125	64.0%	73.3%	64.8%
BOSN	115	10	125	71	8	79	61.7%	80.0%	63.2%
CL DVR	7	15	22	4	8	12	57.1%	53.3%	54.5%
MAR TECH	202	13	215	53	1	54	26.2%	7.7%	25.1%
NAV COMM	120	5	125	54	1	55	45.0%	20.0%	44.0%
NCI OP	58	4	62	26	3	29	44.8%	75.0%	46.8%
NES OP	42	3	45	14	3	17	33.3%	100.0%	37.8%
SONAR OP	62	3	65	29	8	37	46.8%	266.7%	56.9%
W ENG TECH	110	8	118	50	3	53	45.5%	37.5%	44.9%
	985	**100**	**1085**	**451**	**55**	**506**	**45.8%**	**55.0%**	**46.6%**

These achievement rates and intake numbers were historically low in several occupations, highlighted by a 25.1% intake in MAR TECH. In response to the poor achievement in 23/24 and previous years (as shown above in Table 17), the occupation authority briefed DPGR on the growing needs for recruits through the Annual Military Occupation Reviews (AMORs) held in Nov 2023 to prepare each occupation for FY 24/25, in accordance with CAF direction.[97] The following table shows the SIP requirements requested by each occupation manager representing that occupation's needs at those AMORs, next to the corresponding SIP published by CMP in Apr 24 in the 24/25 SIP Letter.

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[96] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'.
[97] National Defence Government of Canada, 'Canadian Armed Forces Military Personnel Instruction 01/08 – Annual Military Occupation Review', 6 December 2024, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/canadian-forces-military-personnel-instructions/annual-military-occupation-review-amor.html.

Table 20: 2024 RCN AMOR Recommendations vs 24/25 SIP, RegF Occupations[98,99]

	Briefed at AMOR			2024/25 Approved SIP			Approved vs Briefed Need		
Occupation	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**
MS ENG	50	9	59	41	9	50	-9	0	-9
NCS ENG	43	10	53	36	13	49	-7	3	-4
NWO	174	15	189	138	17	155	-36	2	-34
BOSN	115	10	125	105	6	111	-10	-4	-14
CL DVR	13	15	28	13	16	29	0	1	1
MAR TECH	213	12	225	202	9	211	-11	-3	-14
NAV COMM	115	10	125	110	5	115	-5	-5	-10
NCI OP	58	5	63	58	4	62	0	-1	-1
NES OP	38	3	41	35	3	38	-3	0	-3
SONAR OP	54	5	59	54	5	59	0	0	0
W ENG TECH	127	8	135	110	6	116	-17	-2	-19
	1000	**102**	**1102**	**902**	**93**	**995**	**-98**	**-9**	**-107**

Based on the data above, it is clear that CMP set targets for CFRG's RCN recruiting in 24/25, lower than the targets that occupations signaled as the need for the RCN's desired recovery. Each occupation's ask for recruits was reduced with the exception of SONAR OP and CL DVR, with the navy seeing 107 (9.7%) fewer total recruits than requested. Throttling recruiting to alleviate the need to adjust the training system explains this action, but the new SIPs do not meet the requirements of the occupations themselves, as shown in the W ENG TECH example above. Resistance to changing the currently assigned resources for the CAF's training and recruiting systems, must not be a reason that the environment's employment needs are restricted. This critical error is both communication and calculation is further exacerbated by the findings of the 2016 Auditor General report which stated the following:

> *"5.42 Recruiting targets. We found that for the 2014–15 and 2015–16 fiscal years, the Military Personnel Command's recruiting targets were significantly lower than the levels that had been recommended by the Regular Force through its occupation reviews. In the 2015–16 fiscal year, the Regular Force had*

[98] Compiled from 2024 AMOR briefs from the Director Naval Personnel to DPGR, Nov 2023.
[99] Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan'.

> *identified the need for 5,752 new recruits (in addition to members who would be transferring from the Reserve Force), yet the target in the recruiting plan was adjusted to 4,200. Similarly, for the 2014–15 fiscal year, 4,567 members were needed, but the target was adjusted to 3,800."*[100]

That MilPersCom continues to misjudge the needs of the occupations for recruiting targets, then is unable to support recommendations received through their own consultation process which highlight this, identifies a crucial communication breakdown in the target setting process.

Further illustrating the issue, Table 21 on the following page shows the 23/24 and 24/25 SIPs compared against each other. Each occupation in the RCN with the exception of CL DVR and NCI OP shows a lower assigned recruiting target in 24/25 than in 23/24, despite needing recruits more critically after a historically poor performance the year previously.[101] This occurred even in those occupations considered critically short, such as MAR TECH – an occupation whose training system is empty and waiting for members to arrive, ready to train. It also occurred despite the requested 24/25 SIPs being comparable to 23/24 SIPs, without significant increases in the requests from AMOR.

Table 21: RCN 23/24 vs 24/25 SIPs, Year-Over-Year change[102,103]

[100] Government of Canada, 'Report 5—Canadian Armed Forces Recruitment and Retention—National Defence', 5.
[101] See especially Tables 8 and 15 showing CAF environmental and RCN external recruiting performance over time.
[102] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'.
[103] Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan'.

	2023/24 SIP			2024/25 Approved SIP			2023/24 to 2024/25		
Occupation	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**	**External**	**Internal**	**Total**
MS ENG	49	13	62	41	9	50	-8	-4	-12
NCS ENG	42	11	53	36	13	49	-6	2	-4
NWO	178	15	193	138	17	155	-40	2	-38
BOSN	115	10	125	105	6	111	-10	-4	-14
CL DVR	7	15	22	13	16	29	6	1	7
MAR TECH	202	13	215	202	9	211	0	-4	-4
NAV COMM	120	5	125	110	5	115	-10	0	-10
NCI OP	58	4	62	58	4	62	0	0	0
NES OP	42	3	45	35	3	38	-7	0	-7
SONAR OP	62	3	65	54	5	59	-8	2	-6
W ENG TECH	110	8	118	110	6	116	0	-2	-2
	985	**100**	**1085**	**902**	**93**	**995**	**-83**	**-7**	**-90**

Setting occupational or environmental SIP targets that decrease when recruits are needed more urgently than ever, is illogical. SIP targets that are lower in years following poor recruiting performance may be a way to show improvement in the following year through better achievement rates, but is not an accurate reflection of whether the recruiting year met each occupation's needs. The above data should make clear to the reader that the way SIPs are calculated from year to year does not make sense, often affects more stressed occupations more significantly, lacks communication, and needs to change. The Canadian Army (CA) presents another unique view at year-over-year recruiting targets and how they impact some occupations more than others.

Case Study: The Canadian Army as Uniquely Challenged in Recruiting

As with the RCN, the CA recognizes the importance of recruiting to meet its needs, including setting correct SIPs. It's Modernization Policy states "The importance of adopting appropriate recruitment [and] retention…policies [are] vital to the Canadian Army.[104]" Though not as severely challenged as the RCN, the Army has also seen recruiting challenges affecting its occupational health, over a shorter term. Table 22 below shows the army's trained strength has been decreasing since at least 2013, losing 2180 members in that time period, 10.7% of its 2013 strength. Despite the demand for trained soldiers (TEE) decreasing, which would normally increase occupational health, the loss of trained members has instead decreased health by almost 9.8% since 2013, 9.3% of which occurred over the last five years. The total number of members has also significantly decreased (by 2440, 10.2%), showing decreases have not been limited to the trained cadre but include the BTL, a sign that recruiting has not performed.

Table 22: Canadian Army Occupational Health, Total, FY Ends 2013 to 2024[105]

FY END	TES	TEE	TES/TEE	Total
2013	20335	21289	95.5%	23834
2014	20196	21252	95.0%	23421
2015	19762	21179	93.3%	22945
2016	19622	21147	92.8%	23506
2017	19702	21124	93.3%	23390
2018	20001	21116	94.7%	23752
2019	*19964*	*21044*	*94.9%*	*23608*
2020	19927	20971	95.0%	23464
2021	19461	21045	92.5%	22385
2022	18555	21112	87.9%	22216
2023	18378	21163	86.8%	21452
2024	18155	21188	85.7%	21394

[104] National Defence Government of Canada, 'Advancing with Purpose: The Canadian Army Modernization Strategy', education and awareness, 7 January 2021, https://www.canada.ca/en/army/services/for-the-soldier/canadian-army-modernization-strategy.html.
[105] Compiled from year end PARRA and ESR data. 2019 data is interpolated.

Delving deeper, the Army's NCM health has been the major factor behind the decline, with Officer occupational health actually increasing by 1.7% since FY end 2020, led by significant recoveries in the ARMD and SIGS officer occupations. Unfortunately, CA NCMs have declined by 11.6% in the same period, with declines of over 13% in the INFTR, SIG TECH, MAT TECH, SIG OP, CBT ENGR and W TECH (L) occupations, as shown in the breakdown below.

Table 23: Occupational Health, All CA Occupations, End FY 2020 vs End FY 2024[106]

	Occupation		2019-20			2023-24			Delta		
	2019-20	2023-24	TEE	TES	TES/TEE	TEE	TES	TES/TEE	TEE	TES	TES/TEE
Officers	ARMD	ARMD	496	424	85.5%	495	475	96.0%	-1	51	10.5%
	ARTY	ARTY	562	480	85.4%	569	489	85.9%	7	9	0.5%
	INF	INF	1115	1050	94.2%	1061	978	92.2%	-54	-72	-2.0%
	ENGR	ENGR	479	430	89.8%	475	432	90.9%	-4	2	1.2%
	EME	EME	404	391	96.8%	408	382	93.6%	4	-9	-3.2%
	SIGS	SIGS	620	548	88.4%	652	615	94.3%	32	67	5.9%
NCMs	CRMN	ARMOUR NCM	1813	1700	93.8%	1827	1543	84.5%	14	-157	-9.3%
	INFMN	INFTR	4992	5391	108.0%	5003	4574	91.4%	11	-817	-16.6%
	VEH TECH	VEH TECH	2231	2078	93.1%	1984	1736	87.5%	-247	-342	-5.6%
	W TECH L	W TECH L	419	431	102.9%	380	337	88.7%	-39	-94	-14.2%
	MAT TECH	MAT TECH	267	294	110.1%	242	234	96.7%	-25	-60	-13.4%
	GEO TECH	GEO TECH	199	189	95.0%	207	181	87.4%	8	-8	-7.5%
	EO TECH (L)	EO TECH (L)	425	382	89.9%	380	318	83.7%	-45	-64	-6.2%
	CBT ENGR	CBT ENGR	1730	1796	103.8%	1739	1558	89.6%	9	-238	-14.2%
	GNR	GNR	1966	1795	91.3%	2050	1679	81.9%	84	-116	-9.4%
	ACISS	SIG OP	3253	2548	78.3%	1450	945	65.2%	77	-252	-13.2%
		LINE TECH				438	351	80.1%			1.8%
		SIG TECH				739	441	59.7%			-18.7%
		AIR DROP SYS TECH				56	40	71.4%			-6.9%
		IS TECH				647	519	80.2%			1.9%
	N/A	LEET	N/A	N/A	N/A	381	328	86.1%	381	328	NEW
		Officer Total	3676	3323	90.4%	3660	3371	92.1%	-16	48	1.7%
		NCM Total	17295	16604	96.0%	17523	14784	84.4%	228	-1820	-11.6%
		Invalid	0	0		5	0				
		CA Totals	20971	19927	95.0%	21188	18155	85.7%	217	-1772	-9.3%

[106] Compiled from 2019-20 and 2023-24 FY End Establishment and Strength Reports. Changes are indicated where they occurred to occ structure or title over the period. Invalid positions refer to those not yet assigned to an occupation.

A point to note from Table 23 above is that the most severe occupational health decreases occurred in the army's four most healthy NCM occupations (in 2019-2020), which nonetheless remain the army's four most healthy (as of end 2023-24). Recruiting difficulties in those occupations have been a major factor. The aforementioned NCM occupations which have dropped most precipitously (not including SIG OP and SIG TECH which evolved from a larger occupation of ACISS in 2021 and do not have a ten-year history) have seen external recruiting as follows over the past ten years:

Table 24: External SIP Performance, Highest Declining CA Occupations, FY end 2015-2024[107]

	INFTR		MAT TECH		CBT ENGR		W TECH (L)	
FY End	**Intake**	**Ext %**	**Intake**	**Ext %**	**Intake**	**Ext %**	**Intake**	**Ext %**
2015	809	99%	41	93%	192	103%	66	99%
2016	1085	88%	44	100%	286	78%	40	91%
2017	893	91%	44	80%	270	100%	48	94%
2018	990	98%	40	95%	290	100%	50	91%
2019	903	96%	34	103%	245	100%	25	89%
2020	758	100%	29	88%	288	98%	34	79%
2021	175	28%	11	110%	77	75%	12	57%
2022	806	103%	6	100%	195	119%	33	122%
2023	820	80%	9	53%	165	67%	45	76%
2024	864	74%	16	73%	174	75%	64	145%

INFTR, MAT TECH and CBT ENGR have seen the occupations' lowest SIP achievement over the ten-year period occur within the last two years. W TECH (L) hit a low in 2022-23 but shows recovery last year. None of the occupations have shown intake growth which would show preparation for a potential near-future establishment growth, as the Canadian government has signaled is its intent[108]. Army occupations which have found the most difficulty

[107] Compiled from end FY SIP Scorecards. 2021 formatting is removed, being considered an outlier year of poor performance during the COVID-19 pandemic.
[108] Pugliese, 'Canadian Military Plans to Boost Ranks to 86,000 Personnel'.

recruiting mimic the Navy's occupations, in that they are either among the largest (INFTR, CBT ENGR) or most technical (MAT TECH, CBT ENGR, E TECH (L)) of the army's occupations.

Within CA occupations, there is a significant disparity in how the SIP is allocated based on each occupation's demands (TEE). Table 25 below shows the SIP to TEE ratios for CA's NCM occupations. Noticeably, the table shows that the more technical an occupation is (and presumably the harder it is to recruit members into it), the lower percentage of the SIP assigned to that occupation, adjusted for TEE. Most TECH occupations show low SIP to TEE ratios, while less technical GNR, ARMOUR NCM and INFTR occupations take up the lion's share of the SIP and of CFRG's resources dedicated to recruiting. Those three occupations have been assigned 67.7% of the CA NCM SIP despite only being 51.8% of the TEE.

Table 25: CA NCM Establishments and SIPs, Comparing SIP to TEE ratios, FY End 2024[109]

	Occupational Health Data			Recruiting Data			
Occupation	**TEE**	**TES**	**TES/TEE**	**SIP**	**Intake**	**Total**	**SIP % TEE**
VEH TECH	1984	1736	87.5%	125	93	74.4%	6.3%
LINE TECH	438	351	80.1%	38	11	28.9%	8.7%
MAT TECH	242	234	96.7%	22	16	72.7%	9.1%
SIG TECH	739	441	59.7%	76	25	32.9%	10.3%
EO TECH (L)	380	318	83.7%	40	25	62.5%	10.5%
SIG OP	1450	945	65.2%	167	91	54.5%	11.5%
W TECH L	380	337	88.7%	44	64	145.5%	11.6%
CBT ENGR	1739	1558	89.6%	233	174	74.7%	13.4%
GEO TECH	207	181	87.4%	28	9	32.1%	13.5%
IS TECH	647	519	80.2%	100	77	77.0%	15.5%
AIR DROP SYST TECH	56	40	71.4%	9	5	55.6%	16.1%
GNR	2050	1679	81.9%	332	124	37.3%	16.2%
ARMOUR NCM	1827	1543	84.5%	346	193	55.8%	18.9%
INFTR	5003	4574	91.4%	1168	864	74.0%	23.3%

[109] Compiled from end FY 24 SIP Scorecard and Establishment and Strength Reports. The LEET NCM occupation is not included as it does not recruit externally.

The latter trend, of difficulty in recruiting and retaining technical occupations, mimic's the findings of the RCN case study above and has been noted by other authors.[110] Despite that awareness, and CMP knowing technical occupations recruit less readily, the SIP to TEE ratio of the Army mimics the Navy in that technical occupations have low SIP to TEE ratios, with fewer members per capita being sought as recruits for technical occupations. Conversely, those that are not technical which can seek higher numbers of recruits more easily, have higher SIP to TEE ratios. This disparity is significantly more pronounced in the CA NCM occupations than in the RCN; in the Army, the highest recruiting NCM occupation, INFTR, has a SIP to TEE ratio four times higher than that of the lowest, VEH TECH, per capita.

This issue is further exacerbated by the fact that technical occupations have longer training timelines, with more chance for new recruits to release prior to reaching OFP; and have aforementioned higher net transfer rates out of those occupations, with more technical training creating a unidirectional transfer of members who are unsuccessful in training to less technical occupations. CMP must rebalance the army's occupational focus in terms of SIP, prioritizing its intake planning towards a balanced distribution of SIP that treats technical and non-technical occupations the same.

The Army shows similar issues in SIP determination within stressed occupations. Table 26 below shows the occupational health decline of the top decreasing occupations 2019-2024, overlaid against the occupational SIPs in the following fiscal years. SIG TECH has also been included for FY 2020-21 onward after being created in that year.

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[110] Juneau and Lagassé, *Canadian Defence Policy in Theory and Practice*, 2:37.

Table 26: TES/TEE v. Next FY Assigned SIP, Highest Declining CA NCM Occupations[111]

	Occupational Health					Assigned SIP				
Occupation	End FY 20	End FY 21	End FY 22	End FY 23	End FY 24	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
INFTR	108.0%	103.6%	94.0%	92.3%	91.4%	626	786	1028	1168	1077
MAT TECH	110.1%	109.4%	110.7%	102.9%	96.7%	10	6	17	22	33
CBT ENGR	103.8%	102.1%	96.9%	92.6%	89.6%	143	164	248	233	226
W TECH (L)	102.9%	100.2%	95.5%	89.9%	88.7%	21	27	59	44	47
SIG TECH	N/A	73.2%	67.0%	62.6%	59.7%	30	64	63	76	68

All five occupations show consistent decline with the end 2024 health being lowest in the period. As such, all five should show increasing SIP targets as occupational need rises; however, this is only evident in the first two or three years of the decline. For instance, despite decreasing in health between 2023 and 2024, INFTR's SIP target decreased by almost 100 recruits. In the 2021-22 FY SIG TECH met only 56% of its intended SIP target of 64; its SIP target declined the following year. MAT TECH, on the other hand, saw a SIP that increased by over 500% during the period. These changes indicate the SIPs are not being set with the needs of the occupation considered equally. Where throttling occurs as occupational health decreases, especially in an occupation which recruited poorly and has a low BTL ready to quickly train new members to OFP, this indicates the target is being set lower based on other influences or process functions, unnecessarily dampening occupational recovery.

A final point concerns the changes in SIP year over year within the Army. Table 27 below shows changes, sorted by the SIP change per occupation (from the occupations experiencing the largest decline in SIP, to those experiencing the most significant year over year gain).

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[111] Compiled from end year PARRA, ESR and SIP Scorecard Data for shown periods. SIG TECH was chosen for inclusion with the other four largest decreasing occupations as showing a similar trend, despite starting out as an unhealthy occupation relative to the other four.

Table 27: 23/24 Recruiting Achievement vs 23-24 Delta SIP, CA Occupations

Occupation	23/24 SIP	23/24 Achievement	24/25 SIP	Delta SIP	Delta Sip %	23/24 End TES/TEE
SIGS	125	38%	90	-35	-28.0%	94.3%
ARMD	108	76%	79	-29	-26.9%	96.0%
EME	91	64%	81	-10	-11.0%	93.6%
LINE TECH	38	29%	34	-4	-10.5%	80.1%
SIG TECH	76	33%	68	-8	-10.5%	59.7%
INF	173	82%	159	-14	-8.1%	92.2%
INFTR	1168	74%	1077	-91	-7.8%	91.4%
ENGR	79	71%	74	-5	-6.3%	90.9%
CBT ENGR	233	75%	226	-7	-3.0%	89.6%
IS TECH	100	77%	98	-2	-2.0%	80.2%
SIG OP	167	54%	166	-1	-0.6%	65.2%
ARMOUR NCM	346	56%	346	0	0.0%	84.5%
GEO TECH	28	32%	28	0	0.0%	87.4%
GNR	332	37%	337	5	1.5%	81.9%
W TECH L	44	145%	47	3	6.8%	88.7%
ARTY	76	92%	96	20	26.3%	85.9%
EO TECH(L)	40	63%	58	18	45.0%	83.7%
MAT TECH	22	73%	33	11	50.0%	96.7%
AIR DROP SYST TECH	9	56%	14	5	55.6%	71.4%
VEH TECH	125	74%	216	91	72.8%	87.5%
TOTAL ARMY	**3380**	**66%**	**3327**	**-53**	**-1.6%**	**85.7%**

Based on this table, the Army overall had a 1.6% lower SIP in 24/25 than in 23/24, despite only meeting 66% of its SIP in 23/24. Several of the lowest achieving occupations in 23/24 (SIGS, LINE TECH, SIG TECH) saw the highest declines in SIP in 24/25. The Army's shortest occupation, SIG TECH, with and end FY occupational health of only 59.7%, saw a 10.5% decline in SIP in 24/25 after meeting only 33% of its SIP in 23/24.

The trends above show the Army, though healthier overall than the RCN and meeting higher SIP achievement rates, demonstrates similar issues with assigning a SIP target that accurately portrays the needs of its occupations. The systemic responses to decreases in occupational health do not describe a critically damped system functioning to recover occupations expeditiously, and instead indicate a system whose response is limited by external factors, such as training throughput to OFP.

The Role of Training Capacity in SIP Development

In certain occupations that have recruited to a healthy level, if training capacity has not been able to keep up, a large BTL has resulted. Recruiting members who sit on the BTL long term and who thus have a higher chance of releasing or transferring out of their occupation while awaiting training, is not ideal; however, it is a better problem and closer to the ideal solution of a large trained TES, than not having recruits in the training pipeline at all. Juneau and Lagasse have argued in favour of throttling recruiting to avoid a large BTL due to the difficulty it puts on force generation (FG) organizations, and to the negative public affairs impact of a large number of early career releases. [112] Serré similarly feels "the overall intake target for the CAF must align with its annual capacity to process and enroll applicants".[113] Unfortunately, neither author either provides an alternative solution for how to meet the large and growing throughput required to restore CAF occupations at poor health, or shows how training capacity will ramp up to meet the new growth of establishment signaled by CAF leadership through this process.. A larger than average BTL is a necessary evil in a recovery scenario, and a strategic plan for SIP must include plans to surge training capacities where they are identified as deficient to meet the system output requirement. In other words, training capacity must not limit recruit intake in any condition with the possible exception of healthy occupations with stagnant establishments, a condition few of the CAF's occupations find themselves in.

Basic Training is the first step on the path to any recruit's career (for both NCMs and officers). The nine (NCM) to twelve (Officer) week course is concentrated in St-Jean-Sur-

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[112] Juneau and Lagassé, *Canadian Defence Policy in Theory and Practice*.
[113] Serré, 'Managing the Personnel Resources of a Military Occupation: Attrition Forecasting and Production Planning', 16.

Richelieu at the Canadian Forces Leadership and Recruit School (CFLRS). This school indicates a recently "expanded" throughput capacity of 6480, with the ability to surge to 7100, as well as an alternative training plan for 480 candidates at Borden.[114] With a total external 24/25 SIP of 7155, the basic training capacity is able to handle the recruit intake the CAF says we need, and no more, showing the SIP has been designed with this constraint in mind first, and the actual number of recruits required, second. Indeed, Comd MilPersCom's 24/25 SIP letter states explicitly that "the external SIP target for FY 24/25, comprised of newly recruited personnel, as well as component transfers from the Reserve Force, is 7,155. The component transfer target is 659, and the CFRG external target is 6,496", matching the CFLRS design capacity exactly.[115] Considering the discussion above showing the SIPs decreasing instead of increasing, that the CAF SIP is matched to the school's recruit throughput capacity instead of the actual bottom up compiled and communicated needs of the occupations, shows that training capacity is being used as the limiting factor and is the rate limiting step in the CAF's HR mass balance, instead of the desired system output: the TES needs of the CAF. Further, if the ideal scenario materializes and the CAF recruits above its target, there is no inherent basic training capacity to manage this intake. The current plan shows no ability for the CAF to surge to seize the opportunity of a successful recruiting campaign if it was to materialize. The existing strategy has targets set against the wrong constraint, and is not flexible enough without having evident contingency to accommodate either a failure of recruiting to recruit or success of recruiting beyond the SIP.

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[114] National Defence Government of Canada, 'Expanding Basic Training Increases CAF Capacity', 25 February 2025, https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2025/02/expanding-basic-training-increases-caf-capacity.html.
[115] Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan'.

Training also has a role in delaying the impacts of recruiting performance from being felt in an occupation. Within the NCM core this is less pronounced, with short timelines to OFP for members recruited into those occupations.[116] This results in a faster ability to refill the NCM ranks, if only members can be recruited into their occupations, and a system that responds more quickly to disruption. Within the Officer core however, poor achievement of recruiting targets followed by a long university and occupational training timeline means it is difficult for recruiting to immediately react to other system impacts. The officer enrolment-to-employment system is thus significantly slower to respond to changes in either input (recruiting) or output (retention) and is more dependent on consistency of both rates. Key takeaways from this trend are the need to avoid overreaction to stimuli affecting Officer generation, and a need to focus recruiting wherever possible on Officer recruits enrolled through recruiting plans with shorter training timelines, such as those with degrees already being recruited as Direct Entry Officers.[117,118] This would increase system responsiveness, shorten average time to OFP and thus decrease the aggregate pre-OFP release rate in Officer occupations. On the NCM side, training systems must be more agile and should be designed to be ready to respond quickly to process either a "feast or famine" of recruits.

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[116] Though a less pronounced delay, the one-year training to OFP in NCM occupations means poor recruiting in 23/24 will not reflect in lost TES in NCM occupations until this year, 24/25. Most occupations have seen declines in occupational health as a result, as shown in ESRs.

[117] DAOD 5002-2 Direct Entry Officer Plan, Regular Force, identifies occupation authorities as the authority for determining the SIP for DEOs annually. However, as shown above, if these recommendations are not implemented in the approved SIP from CMP following AMOR, that authority is not functioning in reality. Poor recruiting of DEOs compared to university entry program, shown in recent SIP Scorecards, also discourages occupations from recommending increases to the percentage makeup of DEOs.

[118] National Defence Government of Canada, 'DAOD 5002-2, Direct Entry Officer Plan - Regular Force', policies, 13 November 2013, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/5000-series/5002/5002-2-direct-entry-officer-plan-regular-force.html.

Developing a Strategic Plan for Strategic Intake

Considering the complexities of release, transfer, basic training, occupational functional point training, occupation rank structure, and growth of the occupation when determining an occupational intake requirement (SIP) is a difficult yet possible calculation. It presents risk and uncertainty, which sections above have shown has not been planned for in recent years or at least, if planned for has not been communicated effectively to elements of the system. The following section will describe what a Strategic Plan for Intake should factor, how it should be calculated, the metrics under which it can be considered successful and contingency plans that must result if it is not.

First and foremost, the system must treat each occupation as a mass balance and the input (SIP) must meet or exceed the output requirement (the number of releases and transfers from the occupation at TEE). Steps along the process of converting recruits to functional trained members, must not be rate limiting. That assumption is key to sustaining all occupations.

Second, understanding the scale up or growth requirements and recovery requirements of each occupation must happen and must be factored to result in an increased SIP for a period that allows for a timely recovery to the TES generation capacity that each occupation requires. The system's input requirement must thus be adjusted to account for this recovery within an intentional recovery timeline. Identification of an Ideal BTL and plans to accommodate a range beyond this value within the training system are key to support this increased SIP when it is necessary. The system should be designed to be able to surge training, for as long as is needed to recover, consistently and at a high rate to reflect a critically damped recovery.

Third, the SIP to TEE ratio of an occupation must reflect the occupation's needs, factoring in both the typical turnover in the occupation, the length of training time and the ideal

BTL the occupation needs to sustain, grow or recover its TES. It should factor the "hardness" of recruiting into that occupation and thus strategize for those occupations which are harder to recruit into, such as NCM technical occupations. The SIP to TEE ratio must also, critically, increase as an occupation gets unhealthier, resulting in more focus of the recruiting system on recruiting into the occupation and more possibility for recovery, not less (as has been shown above in the case studies). The RCN and CA have shown that disparate SIP to TEE ratios are affecting different occupations differently and unintentionally – this must be acknowledged and corrected.

Finally, the system must be designed to react more severely to compensate for occupations that are more stressed. Graceful degradation plans must be developed to assess occupations against pre-determined stress milestones and take corresponding action, in an "if this, then that" logical format to give occupations more help immediately as their occupational health decreases. CMP should drive these reactions through a pre-planned contingency, vice occupations doing them at random.

The four key elements above must be determined and communicated in a comprehensive strategy in order to ensure the intent is understood by the rest of the personnel system. It is not enough to state a SIP number; CMP must show their work and encourage occupations to challenge the calculation where the intake does not meet their communicated needs. Basic Training systems (both CFLRS and environments) must understand the SIP, the strategic recovery surge requirement and the resulting recovery timeline and then determine a resource plan to support. Follow on occupational training must then react to the basic training output, factoring in typical release and transfer rates at that point in members' careers. As above, treating the system as a mass balance necessitates that the process functions that compose the training

system must not be the rate limiting steps and if determined to be so now, must be resourced accordingly to correct this.

The resulting annual Strategic Intake policy must thus have several key elements which should be determined by occupation but presented holistically due to its impact on CAF-wide CDA-controlled elements, including:

a. each occupation's expected establishment growth over time;
b. each occupation's recovery rate and timeline (ideally, an environmental commander's decision);
c. each occupation's combined attrition rate (encompassing release and transfer, including both pre- and post-OFP);
d. the net In-Out transfer rate (to factor the likelihood an occupation will meet its internal SIP target);
e. the SIP, for a minimum of 10 years;
f. contingency plans for when that SIP is not achieved, providing a realistic view for commanders of how the system will perform, not only at ideal but also most realistic outcomes; and
g. direction on resourcing priorities to meet the key requirements of the CAF's occupations, dependent on needs.

As an example, the latter could include resourcing of training establishments for priority TES generation of specific occupations, attractions and recruiting functions in key underperforming geographical areas, recruiting and retention priorities, benefits or incentives, etc.

A strategy would have several supported and supporting environments involved (as Reconstitution does), and so it should be issued at the highest levels of the CAF, potentially as a

multi-year operation with recovery as the strategic end state.[119] The SIP achievement rates presented in Table 7 showed that SIP achievement decreased consistently while occupational health of the CAF similarly decreased. The long, slow, consistent decrease of the CAF's occupational health by all environments means, the CAF has been failing its recruiting mission. This failure cannot be accepted and any strategy may plan for success, but also must contingency plan for the worst-case scenario (poor achievement), to ensure sustainment and recovery of the personnel state. This must include direction on contingency planning, such as the aforementioned pre-planned graceful degradation and system responses in occupations as they decline in health.

Once a strategy is in place, and SIPs are developed and set, the CAF should use an analogous estimate process as a check to compare the SIP set by the CAF with those set by our allies, especially those with similar force structures or size. The Australian Defence Force (ADF) for instance, had a FY 22/23 permanent (RegF) strength of 62 063, a release rate of 11% and recruitment into the permanent force of 5537 against releases of 6554, losing over 1000 members.[120] These are similar numbers to what the CAF has been experiencing, though the ADF had a relatively minor overall shortage of 5.5%, 3421 personnel at the time.[121] Australia, however has a much more robust recruiting requirement to recover that shortfall, contracting a private company to deliver 10 512 recruits in 2024-25, far higher than the CAF's requirement

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[119] Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution'. Proponents of Reconstitution may argue that program encompasses several HR functions including but not limited to recruiting; however the lack of a dedicated recruiting strategy as described herein under Reconstitution means, either one needs to be developed as a function of that initiative, or as another dedicated initiative.
[120] Department of Defence Government of Australia, '2022-23 Department of Defence Annual Report', 18 Sep 23, 86–88, https://www.defence.gov.au/sites/default/files/2023-10/Defence-Annual-Report-2022-23.pdf.
[121] Government of Australia, 86.

despite the shortage in the ADF being far less pronounced and for a smaller force size.[122] Australia's recruiting targets show relative seriousness and indicate their system's intent for quick recovery, even with a much smaller gap to make up.

CMP's over-damped HR systemic control must be corrected. Using the LRPM model as currently designed to recover decades from now, with rates which might gradually tiptoe to occupational health in order to shield environmental training systems from the real needs of the CAF, is not an appropriate strategy. The system would ideally be designed to be critically damped as discussed above, but an under-damped system which temporarily exceeds the CAF's strength, if only to support regression to the mean of recovery, is a far better and more secure problem than an over-damped system susceptible to risks (like missing recruiting targets) which in many occupations never reaches its designed set point.

The CAF receives criticism for lowering recruiting standards to increase the number of recruits to a level that this report advocates for as the strategic targets, a legitimate worry on the part of the public and members now in uniform. Strategic human resource planning must indeed pivot to allow for a lower recruiting standard as the targets must be met to facilitate recovery, however the CAF can mitigate the risk of this by upholding a higher OFP and workplace performance standard for behavior and conduct to combat this criticism. The faster the CAF recovers, the more quickly it will be able to operate from a position of health where it can use existing standards which are now significantly underused (such as remedial measures leading to

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[122] The Adecco Group, 'Adecco Australia Reportedly Misses ADF Staffing Target', Staffing Industry Analysts (SIA), accessed 3 March 2025, https://www.staffingindustry.com/news/global-daily-news/adecco-australia-reportedly-misses-adf-staffing-target.

administrative releases for members who are under-performing) to uphold the standard where it matters – not within the CAF's new recruits, but within its trained and working cadre.

Continuing efforts must be made to rationalize training to lower time to OFP in all occupations (but especially in officer occupations whose training timelines far exceed those of the NCM core). As part of the development of SIP and assessment of recovery, CMP should define an ideal BTL size for each occupation based on its TEE and occupational training timeline. Occupations whose BTL significantly exceeds the ideal BTL, may be considered to have a stressed training system and only then could be considered to have recruiting throttled artificially. The large majority of occupations would not meet this definition and their recruiting systems should be prepared to surge to meet growing needs, using a systemic condition-based response. This response should include widening eligibility for recruiting allowances, especially to support untrained recruits. CFRG should focus recruiting efforts on untrained recruits in occupations with a BTL below ideal size, who have seats in training systems built to support higher numbers of members able to train right now.

Long term, a strategy should define intentions for building the CAF's recruiting capacity, similar to the way the National Shipbuilding Strategy defines not only needs for ships but also for shipbuilding capacity within Canada.[123] If the CAF knows it has a rate-limiting issue with a function of the training system (such as Basic Training) which limits the ability to intake members, that should be identified as a critical security vulnerability and corrected expediently.

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[123] Public Services and Procurement Canada, 'About the National Shipbuilding Strategy', program descriptions, 2 January 2025, https://www.canada.ca/en/public-services-procurement/services/acquisitions/defence-marine/national-shipbuilding-strategy/about.html.

Finally, any strategy must be overwhelmingly be focused on external recruiting vice internal recruiting. Internal SIP complicates calculations of payback for “recruits” into new occupations, such as for members like NCMs commissioning to officer occupations who lack the time to do a whole career in their new occupation (especially on a university training plan) as a newly recruited officer could. Internal transfer disproportionately benefits the RCAF and ACMP occupations, and so cannot be treated as an equal opportunity to recover occupations in all four environments. Two possible solutions are either to calculate this inequality and respond with reallocated national external recruiting resources to the CA and RCN to make up that disadvantage in external recruiting; or else, to not consider internal recruiting in occupational recovery in any of the CAF’s occupations when calculating external needs.

Consequences of Failure

Cochran states of the quagmire of politicians and senior leadership, that "political leaders often fear the domestic fallout of defeat but struggle to justify the costs necessary to secure victory."[124] The recruiting issue in the CAF fits this description well, with politicians not wanting the military to continue to hemorrhage people, but also seeming unable to justify the costs necessary to succeed in an environment where more and more recruits are needed every year.

DPGR shows through the setup of the LRPM that they recognize this resource constraint, limiting the number of recruits based on the assessment of CFRG's resources to recruit them and respective training institutions' resources to train them. Resource limits are real and it is appropriate to signal when a demand signal exceeds a systems ability to react; however, that does not and should not change the key piece which is the demand signal, a signal used by senior military leadership to brief the country's most senior political leadership on the military personnel state and challenges and to ask for additional resources when warranted. Without an accurate SIP, the real cost of missing targets is hidden from senior leaders, and the CAF's leadership is unable to accurately express its need for funding and support to the political level.

As such, the consequences of failure in defining external SIPs that accurately reflect occupations' needs and provide for a reasonable rate and time period of recovery, is a resulting failure in senior leadership's situational awareness of their occupations' abilities or deficiencies. The SIP now represents CMP's *plan*, but does not represent that strategic intake *requirement*. Because the plan only considers intake based on what can be done, and does not aim for what

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[124] Shawn T. Cochran, *War Termination As a Civil-Military Bargain: Soldiers, Statesmen, and the Politics of Protracted Armed Conflict* (New York, UNITED STATES: Palgrave Macmillan, 2015), 42, http://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/detail.action?docID=4383634.

must be done, there exists no realistic strategic plan for recovery. The CAF must understand what the strategic end state is, and determine how it can be met in a campaign-style plan, with appropriate contingency planning built in for when the known risks materialize; recruiting not meeting SIP targets, training institutions unable to train members in a timely manner, release rates being applied to members longer on the BTL than intended, and so on.

This plan must develop metrics that apply graceful degradation planning to inform employment decisions as the organization continues to degrade. Without set triggers and resulting responsive actions representing sound contingency planning, occupations and environments are left to fend for themselves without the tools to adjust employment conditions which CMP holds. Examples discussed through this report are recruiting allowances and incentives increasing proportional inversely in response to an occupation's decreasing health, establishment rationalization actions, surge planning for training institutions especially at the pre-OFP level, and availability of contingency funding for CFRG and attractions teams, as required and as the situation deteriorates. Failing the personnel mission impacts all others, it cannot be tolerated by any level of Command and must thus proceed in a preplanned, controlled and responsive manner when it begins to degrade.

A strategic plan for SIP with any of the above characteristics must focus on recruiting NCMs first. Table 28 below shows the recruiting success rates for the CAF's 5 largest officer and 10 largest NCM occupations. NCM occupations averaged only 59%, while officer occupations averaged 87%. The data shows that the current process is failing NCM occupations more significantly than officer occupations. The largest NCM occupations are unhealthier and recruit less efficiently to their needs than the largest officer occupations, with the only logical conclusion being that it is easier for the CAF to recruit large numbers officers than NCMs. Any

strategy will fail if it is not focused on NCM occupations, especially those that are large and technical, first.

Table 28: Recruiting Success, Largest CAF Occupations, ranked by TEE, 23/24[125]

	Rk	Occupation	TEE	TES	TES/TEE	FY 23/24 Recruiting %
Officer	1	LOG	1808	1754	97.0%	125%
	2	PLT	1556	1375	88.4%	85%
	3	NWO	1089	809	74.3%	65%
	4	INF	1060	966	91.1%	82%
	5	AERE	712	595	83.6%	76%
						87%
NCM	1	INFTR	5018	4680	93.3%	74%
	2	MAT MGT TECH	2762	2178	78.9%	43%
	3	GNR	2059	1593	77.4%	37%
	4	HRA	2047	1556	76.0%	61%
	5	VEH TECH	1992	1611	80.9%	74%
	6	AVN TECH	1974	1709	86.6%	95%
	7	MAR TECH	1921	1339	69.7%	25%
	8	ARMOUR NCM	1823	1516	83.2%	56%
	9	CBT ENGR	1741	1527	87.7%	75%
	10	MSE OP	1567	1283	81.9%	51%
						59%

A final note on the consequences of failure is on the perceived resilience of the remaining trained military population to sustain operations even when recruiting and occupational health issues are prevalent. Military personnel are trained from Basic Training to accept any orders or mission, push back only where orders are illegitimate, and stay the course through adversity. They will attack any role they are given regardless of if they have the correct training and experience. Striving to creatively overcome increasingly insurmountable obstacles (as evident in a degrading HR situation) is a hallmark of the profession of arms. Thus, members working overtime to compensate for empty billets will not push back at a level expected of a unionized civilian, will suffer in silence, and will see increasing mental health and performance issues as a

[125] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'. Colours show occupations in Army (green), Navy (blue), Air Force (light blue) or CMP (purple) environments.

result. This natural tendency means the existing workforce must be protected and reinforces the criticality of senior leadership's role in reconstitution, not only to make minor changes but to plan establishment rationalization and strategic recovery which works, on behalf of these members. Failing to do so means military staff in short occupations are at real risk of being exploited, the most serious consequence of failure as the personnel recovery mission degrades.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This investigation has shown that the CAF must adjust, elaborate on and publish a strategic direction on recovery rates as they pertain to individual occupations, environments and the CAF as a whole. Though occupations may communicate demands or needs through AMOR, DPGR does not pass those demands on directly to CFRG, and thus achievement of those demands is not coordinated. There is no clear objective for the recovery of either individual occupations, rank bands within them, environments or the CAF as a whole, nor is there a clear objective for recruiting to increase to meet future establishment growth needs. Some occupations, as demonstrated, either would remain stagnant at low health or would continue to decrease in health even if the targets currently set were met. As such, the process to create SIP targets is both ineffective in achieving recovery, and ineffective in communicating what is necessary for recovery to occur.

As shown above, the RCN and CA are significantly more impacted by this issue, in part because of the effects of higher attrition rates and net one-way occupation transfer from those environments to RCAF and ACMP. Recruiting SIP must factor these flows, especially in technical occupations which habitually do not meet internal SIPs. Recovery must be planned aggressively and deliberately. Where needs are identified that cannot be met by current CFRG or CFLRS resourcing, this must be identified, discussed, planned for from a CAF-wide strategic perspective, and either resourced internally or supported through external recruiting agencies or other means. Recruiting each occupation's requirement must be looked at as a no-fail mission and the CAF cannot continue putting forth a direction for its recruiting team which is disorganized and incorrectly calculated.

General Recommendations

First and foremost, the CAF must create an HR strategy for RegF occupations, touching on the points outlined above. The strategy must define overall intent for occupational recovery, health, and other factors; and it must define the actions to be taken by DPGR for each occupation at set KPIs as the occupational health degrades or recovers, including but not limited to recruiting initiatives and responses, establishment rationalization, pay and benefit increases for stressed occupations, and direction to environmental training institutions and occupation management teams. The high-level Integrated Strategy for HR announced in *Strong, Secure, Engaged* is unlikely to address this needed system overview specific to RegF occupations, and though that policy announced an intended Retention Strategy it included no discussion about a Recruiting Strategy, indicating the CAF has not yet developed a fulsome cradle-to-grave strategic recovery plan for RegF HR.[126]

Most important within this strategy is to define its intended recovery of occupational health in each occupation, which is recommended to be communicated in one of two ways. First, the CAF could define a target rate at which occupations would recover, such as 2% TEE per year, which for the 17 CAF occupations currently at 70% or below would result in a 15+ year recovery, provided SIP is met. Alternatively, CAF leadership could direct a reasonable timeline for recovery (e.g. 10-20 years) and DPGR could apply that intent to each occupation, resulting in different annual rates for each occupation, with those more stressed having faster recovery rates.

That direction must be used within the LRPM process to calculate SIP (not the SIP requested by the occupation determining predicted recovery, as is now the case). SIP must be

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[126] Government of Canada, 'Strong, Secure, Engaged', 22.

calculated by considering a combination of strategic recovery direction and analytical rates; occupational or environmental ideas for what an occupation should have for SIP, should only factor after occupational authorities are presented with a plan based on the cold math of occupational health recovery. Nominal attrition expected at the current occupational health of the occupation will not allow for recovery in a timely manner, as case studies above have shown; any recovery must plan for a rate that reflects attrition at TEE. Both the intended occupational health recovery rate and the attrition rate at full occupational health (i.e. at TEE) must be key inputs to the SIP. The SIP must be set with those governing factors in mind, and must be independent of the training capacity of the occupation or the resource capacity of CFRG. Only then can either the occupation's training establishment or CFRG assess the gap in resources and act on its own inability to meet the occupation's steady-state and recovery needs. Those needs should be assessed and funded separately, steady-state training being different than surge training required to accommodate a temporary increase in input for an unhealthy occupation. The latter must be consolidated by CMP across all occupations and communicated through senior leaders to government. Wherever possible, to prevent increasing demands on already stressed occupations, surge HR needs should be addressed through external resources, including but not limited to civilian training contracts and civilian recruiting agencies, especially where duties mimic civilian institutions or occupations.

Once an intended SIP is calculated to meet the recovery target, additional factors may be applied to outlying occupations. For instance, some occupations receive a healthy internal intake from transfers, where others do not. Occupations which recruit heavily from externally, which have a high net transfer rate out of the occupation and few internal transfers back into the occupation, need more focus from the recruiting system. CA and RCN technical NCM

occupations compose the occupations which this applies to most significantly. This must be factored into the recovery rate (and thus, the intended external SIP target). Another consideration is whether the occupations currently have a large BTL due to establishment changes or higher than normal recruiting in past years; recruiting in these occupations (like NWO) can be throttled in response, for the length of time that issue is expected to persist, but only so long as long term recovery continues to be supported; an intake must not be throttled to a level that results in a known downstream decrease in TES. Occupations which need recruiting increased or decreased in response to such situations should be considered exceptions, not the rule, and should be announced as such within the annual policy to inform occupation authorities and training systems.

To effectively communicate this calculation, it should not be necessary to reverse engineer it from LRPM inputs in a trial and error method, as is currently required by the occupation authorities. The inputs and outputs of each occupation should be clearly demonstrated in a mass balance equation for each occupation that shows how CMP has considered its recovery, factoring in the key components discussed above. Communication of this in a "show your work" manner is key, not only to prove that CMP has a plan for occupations and their recovery, but to prove to training institutions that they must necessarily meet the input demands, or fail the CAF's recovery mission. Contingency must be built into this communication, to allow for the risk and uncertainty presented by missed intake targets, higher than average release or transfer years, issues with training to OFP on time, and other factors. Multiple horizons would ensure commanders are informed of the needs of the occupations and the risks, and thus, are informed enough to accept or mitigate risk and brief it to senior military and political leadership.

As recovery is a key effort, senior leadership has already outlined a dedicated operational framework to structure and shape the recovery mission, identifying key stakeholders within CMP and environmental staffs to support recruiting efforts, and key training establishments for establishment rationalization and current training capacity assessment activities.[127] Though the issues identified in this paper may in part fall under the current Reconstitution mission, a focus on rationalizing the recruit targeting process and recruit-to-trained-member modelling must be included as a dedicated and tracked initiative within that construct or as another standalone initiative. Flexible arrangements to surge recruiting attractions and processing capacity for the neediest occupations must be put in place to support this. Determining the right SIP to meet the strategic recovery intent, then identifying the recruiting and training systems which must surge to meet that requirement and the extent to which they must do so, is critical to ensuring the recovery mission is correctly identified and understood.

[127] Government of Canada, 'CDS/DM Directive 002 CAF Reconstitution'.

Recommendations Specific to Existing Processes and Policies

In addition to creating and publishing a dedicated strategy for developing the SIP, the following policies are recommended to be updated to better serve the needs of CMP, environments and occupations.

LRPMs

The LRPM must be updated for each occupation to adjust it from a "input SIP, get recovery curve assuming stagnant generation plan" model to a "input recovery conditions, get required SIP and generation" model. This is a fundamental change to its logic. The model should allow for prediction of recovery given several reasonably expected scenarios to accommodate risks to accomplishing the strategic plan; most importantly, what recovery will look like in different achievement rates of the SIP and different attrition rates. The model must account for recovery to occupational health as fast as the directed recovery rate; it should not taper off or slow down recovery rates as an occupation gets healthier. Finally, the model must generate discussion if failure conditions are met: if the occupation falls below structural sustainability based on poor health in certain rank bands. These conditions must inform future occupational planning and the summary of this data should be compiled and communicated to occupational authorities.

The LRPM is used by several different groups, for different reasons; however, it has no overall instructional policy published and signed by higher authority regarding how it should be employed by those groups and what its intents should be. CMP should publish a policy that outlines the content, location, and authorities behind the LRPM, to ensure the various stakeholders (DPGR, occupation authorities, DGMPRA, etc.) understand their roles. The LRPM should be discussed in detail prior to and at AMOR, beyond simply the graphical representation

of the best-case scenario recovery resulting from a SIP which may or may not be agreed to by CMP at fiscal year turnover. This discussion should include talking to stakeholders about training limitations, release and transfer rates, historical recruiting issues and anything else which is an LRPM input as an assumption or recovery factor.

Training for occupation authorities to use the LRPM, as members familiar with their occupation but not with CAF personnel management, must be expanded. A CAF policy on how the LRPM will be set up, updated, used, trained and managed as part of the process, should be developed and published by CMP. Context to this recommendation may be found in Annex C.

PIRA / MOL

The CAF releases an annual letter to confirm the year's Military Occupation Lists (MOLs) for those stressed occupations receiving Pay Incentives (PIs), Recruiting Allowances (RAs) and other benefits. Consideration is sought from every occupation to determine occupational need; however, no existing CAF-wide plan for central development and planning for these allowances in response to an occupation's health exists.

Lists are created at an occupation authority's recommendation, simply based on the "feel" of the authority regarding the need for such measures, similar to the way SIPs jave been historically recommended. This system must be formalized and steered more analytically by CMP's DPGR; special considerations should be by occupation request and be the exception, not the process.

Recovery planning must transform to become condition based; every occupation at set occupational health values of 95%, 90%, or 85% (for example) should expect a set system response to encourage recovery before a crisis occurs. These reactions should have tracked metrics of success; if an occupation falls below a KPI and triggers a contingency pre-planned

response, CMP should be able to assess for the occupation authority what impact the new benefit might have on the recruiting, retention and recovery of the occupation's members.

Recruiting allowances which are currently only available to trained members must be expanded to incentivize untrained members, who form the large majority of needed recruits in most occupations' external SIPs (especially in NCM occupations). An additional allowance could be considered to allow the MOL process to respond to and reflect market dynamics and incentivize either retention or recruitment into occupations with civilian equivalents. Incentives for recruiting and retention must be separately pursued, and should be market tested (e.g. with focus groups of prospects or in uniform members, respectively) to gauge their effectiveness prior to implementation.

CFMPI 01/08

Communication between DPGR and occupation authorities must improve to the point where both groups agree on each occupation's annual and long term recovery planning goals and key performance indicators; it is not sufficient for occupation authorities to signal a need for recovery, CMP to respond that resources are not possible to affect that request and to proceed unilaterally in another direction, and the occupation to be stuck in the middle in consistent decline. That this was identified in 2016 and not corrected indicates that a holistic review of the Auditor's Report findings is necessary to consider what other corrections may need to be made to this communication to correct the targeting stakeholder engagement process[128]. The existing CFMPI directing AMOR communication should be expanded to govern ongoing communication and include direction on working groups, decision policy, etc. beyond simply the annual

[128] Government of Canada, 'Report 5—Canadian Armed Forces Recruitment and Retention—National Defence'.

engagement[129]. In particular, communication must improve to become two-way; occupation authorities should expect feedback on their occupation and its structure, content, comparison to other similar CAF occupations, health, recovery and future from CMP's occupation team in DPGR.

Annual SIP Letter

The SIP letter must identify where SIPs decided by CMP differ from those requested by occupation authorities. The letter should show the work in the modelling process by identifying SIP, Ideal BTL, production target to OFP annually, release rates and nominal expected releases, transfer rates into and out of the occupation and occupational health rates resulting from the plan that has been published. In other words, it should not only publish the SIP but also demonstrate the SIPs are effective in meeting their intent, sustaining each occupation.

[129] Government of Canada, 'Canadian Armed Forces Military Personnel Instruction 01/08 – Annual Military Occupation Review'.

Final Word

Occupations must recover to meet the CAF's mission of supporting Canadian security, and to lessen the impact on in-uniform members having to work overtime to fill in the gaps left by a declining HR capability. Ongoing work in linked areas of training rationalization, establishment rationalization and incentivizing retention all may improve the CAF's personnel situation and either increase generation or decrease attrition; CMP must understand the expected effects of these initiatives, and formulate a SIP for each occupation that ensures recovery within these bounds. Recruiting is a key component in recovery and determining the Strategic Intake Requirement is critical to that effort; the Intake Plan must match that Requirement.

ANNEXES

Annex A: Explanation of Establishment and Strength Report Data

The Establishment and Strength Report (ESR) is published monthly by DPGR using data drawn from CAF HR systems by DRWA. It presents a snapshot of the Occupational Health data of each occupation, environment, and the CAF as a whole. Table 29 below is taken from the End FY 2024 ESR.

Table 29: Excerpt from March 2024 Establishment and Strength Report[130]

ESTABLISHMENT AND STRENGTH REPORT - SUMMARY - MARCH 2024 — DGMPRA | DGRAPM

		ESTABLISHMENT							STRENGTH									
		TEE		Overhead				Total	TES			Overhead			Total		TES		
								(TEE +	Manning			BTL/			(TES +		(incl.		
OA	Rank Group	Manning[1]	ATL	BTL	SUTL	SPHL	NES	Overhead)	Active	LWOP	ATL	SUTL[2]	SPHL[2]	NES[2]	Overhead)	TEE	LWOP)	TEE-TES	TES/TEE
RCN	Officers	1620	78					1698	1221	29	74	833	15	1	2173	1698	1324	374	78.0%
	NCMs	6015	220					6235	4663	57	108	536	106	5	5475	6235	4828	1407	77.4%
	Invalid[3]	0	0					0	0	0	0	0	0	0	0	0	0	0	0.0%
	Total	**7635**	**298**					**7933**	**5884**	**86**	**182**	**1369**	**121**	**6**	**7648**	**7933**	**6152**	**1781**	**77.5%**
CA	Officers	3537	123					3660	3205	42	124	1031	66	5	4473	3660	3371	289	92.1%
	NCMs	17452	71					17523	14528	195	61	1574	535	28	16921	17523	14784	2739	84.4%
	Invalid[3]	5	0					5	0	0	0	0	0	0	0	5	0	0	0.0%
	Total	**20994**	**194**					**21188**	**17733**	**237**	**185**	**2605**	**601**	**33**	**21394**	**21188**	**18155**	**3033**	**85.7%**
RCAF	Officers	4017	111					4128	3433	84	76	1354	53	3	5003	4128	3593	535	87.0%
	NCMs	8692	51					8743	7150	107	8	1033	204	13	8515	8743	7265	1478	83.1%
	Invalid[3]	0	0					0	0	0	0	0	0	0	0	0	0	0	0.0%
	Total	**12709**	**162**					**12871**	**10583**	**191**	**84**	**2387**	**257**	**16**	**13518**	**12871**	**10858**	**2013**	**84.4%**
Asst CMP	Officers	4745	149					4894	4221	139	110	1371	205	6	6052	4894	4470	424	91.3%
	NCMs	15739	137					15876	12382	217	69	1164	587	16	14435	15876	12668	3208	79.8%
	Invalid[3]	10	6					16	1	0	0	1	0	1	3	16	1	0	0.0%
	Total	**20494**	**292**					**20786**	**16604**	**356**	**179**	**2536**	**792**	**23**	**20490**	**20786**	**17139**	**3647**	**82.5%**
Other	GOFO[4]	123	0					123	121	0	0	0	0	0	121	123	121	2	98.4%
	CPO1/CWO CORPS[4]	458	3					461	460	0	10	0	32	1	503	461	470	-9	102.0%
	ALOY								0	0	0	23	0	0	23				
	Invalid[3]/Unassigned[5]	32	1	6077	1739	875	0	8724	1	0	0	1	0	0	2	33	1	32	
Regular Force Total		**62445**	**950**	**6077**	**1739**	**875**	**0**	**72086**	**51386**	**870**	**640**	**8921**	**1803**	**79**	**63699**	**63395**	**52896**	**10499**	**83.4%**
Regular Force Releases		FY to date: 4660 Projection for FY: 5142																	

Data Source: DRWA Data Mart, based on Guardian data as of 31 Mar 2024.

Table 29 first identifies the occupation or environment's establishment. This is divided between the employable establishment (people trained and working in jobs for the occupation or on advanced training) and the unemployable establishment, "Overhead", consisting of untrained members and those in transition out of the military. The employable establishment represents the

[130] Government of Canada, 'Establishment and Strength Report - Breakdown by MOSID - March 2024'.

jobs the occupation must do to support the CAF in its missions. Second, the table shows the occupation or environment's strength, how many persons are employable in each category. Dividing the trained strength by the trained establishment gives the TES / TEE ratio, the occupation's health; its ability to staff the positions assigned to it and do the jobs its employable workforce needs to do. This is the primary indicator of an occupation's ability; an occupation with a lower health, will be less able to support its assigned roles in its employable establishment. The End FY occupational health tables for the Navy and Army's occupations, used regularly in this analysis, are below.

Table 30: RCN and CA Occupational Health, March 2024[131]

ESTABLISHMENT AND STRENGTH REPORT - BREAKDOWN BY MOSID - MARCH 2024																	DGMPRA | DGRAPM	
		ESTABLISHMENT						STRENGTH										
		TEE		Overhead			Total	TES			Overhead			Total				
							(TEE +	Manning			BTL/			(TES +		TES (incl.		
MOSID	Occupation	Manning[1]	ATL	BTL	SUTL	SPHL	NES	Overhead)	Active	LWOP	ATL	SUTL[2]	SPHL[2]	NES[2]	Overhead)	TEE	LWOP)	TEE-TES	TES/TEE
00207	NWO	1039	55					1094	744	20	50	585	14	1	1414	1094	814	280	74.4%
00344	NCS ENG	264	10					274	229	3	9	104	0	0	345	274	241	33	88.0%
00345	MS ENG	249	11					260	185	5	12	144	0	0	346	260	202	58	77.7%
00346	NAV ENG	68	2					70	63	1	3	0	1	0	68	70	67	3	95.7%
RCN Officer Total		1620	78					1698	1221	29	74	833	15	1	2173	1698	1324	374	78.0%
00105	BOSN	716	2					718	613	12	2	71	25	1	724	718	627	91	87.3%
00114	NCI OP	488	4					492	419	4	2	23	11	0	459	492	425	67	86.4%
00115	NES OP	371	3					374	324	4	2	23	14	1	368	374	330	44	88.2%
00165	STWD	245	1					246	131	4	1	10	7	1	154	246	136	110	55.3%
00299	NAV COMM	783	4					787	552	9	3	44	11	0	619	787	564	223	71.7%
00324	SONAR OP	403	3					406	377	4	2	42	4	0	429	406	383	23	94.3%
00342	CL DVR	138	1					139	96	0	0	26	4	0	126	139	96	43	69.1%
00366	W ENG TECH	1093	60					1153	800	7	31	85	16	0	939	1153	838	315	72.7%
00379	MAR TECH	1778	142					1920	1351	13	65	56	14	2	1501	1920	1429	491	74.4%
00402	SAILOR	0	0					0	0	0	0	156	0	0	156	0	0	0	N/A
RCN NCM Total		6015	220					6235	4663	57	108	536	106	5	5475	6235	4828	1407	77.4%
RCN Invalid[3]		0	0					0	0	0	0	0	0	0	0	0	0		
RCN Total		**7635**	**298**					**7933**	**5884**	**86**	**182**	**1369**	**121**	**6**	**7648**	**7933**	**6152**	**1781**	**77.5%**
00178	ARMD	478	17					495	453	6	16	172	11	1	659	495	475	20	96.0%
00179	ARTY	554	15					569	452	7	30	158	14	1	662	569	489	80	85.9%
00180	INF	1028	33					1061	932	7	39	330	18	1	1327	1061	978	83	92.2%
00181	ENGR	455	20					475	403	10	19	124	11	0	567	475	432	43	90.9%
00187	EME	389	19					408	367	3	12	121	4	1	508	408	382	26	93.6%
00341	SIGS	633	19					652	598	9	8	126	8	1	750	652	615	37	94.3%
CA Officer Total		3537	123					3660	3205	42	124	1031	66	5	4473	3660	3371	289	92.1%
00005	ARMOUR NCM	1824	3					1827	1528	12	3	149	46	2	1740	1827	1543	284	84.5%
00010	INFTR	4986	17					5003	4491	65	18	688	215	8	5485	5003	4574	429	91.4%
00129	VEH TECH	1982	2					1984	1705	25	6	110	34	0	1880	1984	1736	248	87.5%
00130	W TECH L	379	1					380	333	4	0	87	5	2	431	380	337	43	88.7%
00134	MAT TECH	241	1					242	229	4	1	18	9	0	261	242	234	8	96.7%
00238	GEO TECH	206	1					207	177	2	2	24	7	1	213	207	181	26	87.4%
00327	EO TECH (L)	379	1					380	313	5	0	71	8	0	397	380	318	62	83.7%
00339	CBT ENGR	1732	7					1739	1526	25	7	147	58	4	1767	1739	1558	181	89.6%
00368	GNR	2034	16					2050	1642	22	15	72	51	5	1807	2050	1679	371	81.9%
00383	SIG OP	1445	5					1450	929	13	3	82	43	4	1074	1450	945	505	65.2%
00384	LINE TECH	434	4					438	345	6	0	10	8	0	369	438	351	87	80.1%
00385	SIG TECH	738	1					739	436	4	1	27	13	0	481	739	441	298	59.7%
00387	AIR DROP SYST TECH	56	0					56	39	1	0	3	0	0	43	56	40	16	71.4%
00388	LEET	373	8					381	324	0	4	0	28	1	357	381	328	53	86.1%
00394	IS TECH	643	4					647	511	7	1	86	10	1	616	647	519	128	80.2%
CA NCM Total		17452	71					17523	14528	195	61	1574	535	28	16921	17523	14784	2739	84.4%
CA Invalid[3]		5	0					5	0	0	0	0	0	0	0	5	0		
CA Total		**20994**	**194**					**21188**	**17733**	**237**	**185**	**2605**	**601**	**33**	**21394**	**21188**	**18155**	**3033**	**85.7%**

[131] Government of Canada.

Annex B: Explanation of Strategic Intake Plan Scorecard Data

DPGR publishes a Strategic Intake Plan (SIP) Scorecard monthly which compares the SIP and the intake of members. An occupation or environment with a higher achievement rate, is more closely accomplishing its recruiting plan. The table below is an excerpt from the 2024 FY End SIP Scorecard.

Table 31: March 2024 FY end SIP Achievement Results[132]

31 Mar 24	Scorecard - Fiscal Year 2023 / 2024																				
	Regular Force External & Internal Intake Summary By OA																				
	CMP Approved FY SIP Targets									Results Achieved									% Intake Achieved		
	Officer			NCM			Total Officer & NCM			Officer			NCM			Total Officer & NCM					
	External	Internal	Total	External	Internal	Total	External	Internal	Total	External	Internal	Total	External	Internal	Total	External	Internal	Total	External	Internal	All
RCN	269	39	308	716	61	777	985	100	1,085	150	20	170	487	35	522	637	55	692	65%	55%	64%
CA	557	95	652	2,648	80	2,728	3,205	175	3,380	379	75	454	1,703	68	1,771	2,082	143	2,225	65%	82%	66%
RCAF	389	136	525	821	201	1,022	1,210	337	1,547	287	118	405	633	145	778	920	263	1,183	76%	78%	76%
Asst CMP	411	198	609	1,664	342	2,006	2,075	540	2,615	344	307	651	897	286	1,183	1,241	593	1,834	60%	110%	70%
Reg Force Total	1,626	468	2,094	5,849	684	6,533	7,475	1,152	8,627	1,160	520	1,680	3,720	534	4,254	4,880	1,054	5,934	65.3%	91%	69%

Scorecards show first the SIP intake targets for both officers and NCMs, and for both internal and external recruiting, followed by the results achieved. Dividing the result by the target results in the achievement rate in the right-hand columns.

SIP Scorecards are published since 2010, allowing a compilation of year-end achievement rates to be assembled. The data following in Table 32 is compiled from FY end scorecards for each environment, showing a declining trend in achievement in all four environments, most especially in the RCN and CA, which are as a result the foci of the case studies in this paper.

[132] Government of Canada, 'End FY 2023-24 Strategic Intake Plan Scorecard'.

Table 32: FY End SIP Achievement Rates by Environment, 2010-2024

	RCN			CA			RCAF			Asst CMP		
End FY	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
2010	63.8%	102.6%	98.5%	85.6%	99.1%	98.1%	100.4%	104.6%	103.6%	95.5%	99.7%	98.9%
2011	81.3%	101.3%	98.5%	66.9%	99.8%	93.3%	82.5%	100.6%	93.0%	108.8%	100.7%	103.6%
2012	97.5%	98.3%	98.2%	81.1%	90.4%	89.2%	101.4%	82.9%	89.1%	90.9%	96.0%	94.5%
2013	94.3%	90.0%	90.5%	82.2%	99.0%	97.6%	91.0%	87.6%	88.6%	91.4%	95.7%	94.3%
2014	79.5%	73.8%	74.8%	69.0%	84.9%	83.7%	94.3%	87.2%	88.8%	86.4%	88.2%	87.7%
2015	66.7%	82.2%	79.6%	58.6%	96.8%	93.7%	87.2%	93.1%	91.5%	80.2%	89.9%	87.0%
2016	55.1%	64.1%	62.9%	59.6%	83.1%	81.5%	79.0%	84.4%	82.8%	70.8%	79.6%	76.9%
2017	39.2%	63.6%	59.7%	58.0%	84.4%	82.0%	73.3%	79.2%	77.6%	67.2%	75.2%	73.0%
2018	50.0%	63.3%	61.9%	63.7%	84.0%	82.8%	54.8%	80.7%	73.5%	82.5%	86.5%	85.6%
2019	64.8%	79.9%	78.0%	63.9%	91.2%	89.3%	81.2%	104.8%	99.4%	77.0%	103.9%	96.2%
2020	56.9%	70.0%	68.6%	104.1%	83.2%	84.3%	96.9%	97.2%	97.1%	111.4%	92.0%	96.7%
2021	127.3%	55.3%	59.7%	150.9%	42.2%	47.6%	127.6%	95.0%	106.5%	105.3%	41.0%	54.0%
2022	85.1%	72.8%	73.8%	116.0%	83.3%	84.8%	110.6%	78.5%	85.3%	83.6%	69.2%	72.5%
2023	74.1%	56.1%	57.9%	111.9%	65.6%	67.9%	96.0%	67.8%	73.4%	93.0%	58.1%	65.2%
2024	55.0%	64.7%	63.8%	81.7%	65.0%	65.8%	78.0%	76.0%	76.5%	109.8%	59.8%	70.1%

From all environments meeting targets in 2010, to all four missing targets by at least 25% in both 2023 and 2024, it is clear the CAF's ability to recruit to its targets is in decline.

Further breaking down the rates more specifically the areas of most recruiting difficulty are within the NCM cadre. Table 33 on the following page shows rates for officer and NCM occupations within each of the four environments. The key takeaway from this data is that though Officer rates have declined, NCM rates have declined much more significantly and compose the main reason the CAF has been struggling to meet targets. This disparity is especially apparent in ACMP occupations where Officer recruiting remains strong relative to the rest of the CAF, over 45 percentage points higher on average higher than NCM ranks in 2024 and 23.0% higher on average over the entire 2010-2024 period.

Table 33: FY End SIP Achievement Rates by Environment, Officer vs NCM, 2010-2024

	SIP Scorecard by Environment - Officer											
	Officer Success Rates											
	RCN			CA			RCAF			Asst CMP		
End FY	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
2010	83.7%	97.6%	95.3%	78.0%	94.9%	91.1%	125.0%	96.1%	101.6%	92.9%	94.0%	93.6%
2011	109.8%	100.0%	101.4%	112.6%	96.7%	101.1%	106.8%	101.6%	102.8%	91.0%	107.8%	101.3%
2012	142.9%	94.2%	100.6%	89.8%	92.1%	91.7%	101.4%	90.3%	93.0%	90.3%	96.5%	94.9%
2013	84.0%	96.8%	95.1%	101.4%	91.7%	94.1%	100.0%	91.5%	93.5%	92.3%	96.7%	95.7%
2014	74.3%	92.6%	88.5%	61.5%	84.1%	79.1%	93.6%	94.8%	94.6%	82.5%	86.0%	84.9%
2015	72.4%	106.7%	98.3%	50.0%	94.0%	83.6%	92.9%	83.4%	85.6%	79.8%	76.4%	77.4%
2016	69.0%	77.3%	75.2%	60.8%	87.6%	82.2%	79.8%	76.9%	77.6%	83.4%	75.3%	78.2%
2017	88.2%	76.7%	78.7%	70.5%	92.1%	86.8%	94.4%	79.5%	83.2%	75.3%	78.1%	77.2%
2018	92.9%	82.6%	83.9%	68.6%	77.7%	76.5%	75.9%	81.3%	80.2%	85.9%	84.3%	84.9%
2019	93.3%	101.9%	100.5%	74.2%	97.2%	92.7%	80.2%	117.3%	109.7%	97.2%	119.9%	110.4%
2020	73.5%	87.4%	85.3%	103.5%	84.2%	87.1%	101.1%	100.4%	100.5%	123.9%	101.3%	111.2%
2021	161.9%	65.2%	75.1%	175.0%	70.2%	87.3%	157.8%	95.5%	113.6%	113.5%	70.0%	86.6%
2022	169.0%	94.3%	102.7%	137.7%	73.6%	81.9%	154.5%	83.9%	100.0%	120.1%	75.1%	91.8%
2023	102.2%	78.4%	81.8%	116.1%	83.8%	89.0%	151.6%	76.5%	92.1%	125.4%	91.8%	102.9%
2024	51.3%	55.8%	55.2%	78.9%	68.0%	69.6%	86.8%	73.8%	77.1%	155.1%	83.7%	106.9%
AVGS	**94.5%**	**85.8%**	**87.1%**	**89.6%**	**84.9%**	**85.8%**	**103.8%**	**88.9%**	**92.3%**	**102.3%**	**88.1%**	**93.1%**

	SIP Scorecard by Environment - NCM											
	NCM Success Rates											
	RCN			CA			RCAF			Asst CMP		
End FY	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
2010	52.8%	103.9%	99.4%	91.9%	99.7%	99.3%	89.4%	110.1%	104.8%	97.1%	101.2%	100.5%
2011	72.3%	101.7%	97.7%	52.5%	100.3%	91.6%	78.1%	100.0%	89.3%	114.8%	98.6%	104.4%
2012	81.7%	99.3%	97.6%	76.5%	89.9%	88.5%	101.4%	79.5%	87.6%	91.0%	95.9%	94.3%
2013	100.0%	87.7%	88.8%	68.9%	100.0%	98.2%	87.5%	84.8%	85.7%	91.3%	95.5%	94.1%
2014	81.5%	68.7%	70.9%	75.3%	85.0%	84.5%	94.5%	84.0%	86.4%	87.7%	88.8%	88.5%
2015	64.6%	77.4%	75.5%	65.2%	97.3%	95.5%	85.5%	96.9%	93.6%	80.4%	94.8%	90.4%
2016	50.0%	62.2%	60.8%	58.6%	82.5%	81.4%	78.7%	88.0%	85.2%	65.2%	80.9%	76.4%
2017	27.0%	60.7%	55.3%	48.1%	83.2%	81.0%	64.7%	79.1%	75.0%	62.8%	74.2%	71.4%
2018	37.0%	58.8%	56.6%	61.1%	85.1%	84.0%	47.7%	80.3%	69.9%	80.0%	87.1%	85.8%
2019	53.3%	74.1%	71.7%	55.5%	90.2%	88.6%	81.7%	97.2%	93.5%	66.8%	100.2%	91.9%
2020	49.3%	65.5%	64.1%	104.6%	83.1%	83.8%	95.0%	95.8%	95.6%	101.7%	90.0%	92.1%
2021	105.9%	52.5%	55.1%	119.6%	37.1%	39.3%	108.1%	94.4%	100.0%	101.0%	36.2%	46.9%
2022	51.4%	67.3%	66.1%	91.0%	85.3%	85.5%	91.5%	76.4%	79.5%	69.0%	68.2%	68.3%
2023	55.7%	47.7%	48.4%	106.8%	62.3%	63.6%	66.7%	63.7%	64.3%	73.6%	50.0%	53.9%
2024	57.4%	68.0%	67.2%	85.0%	64.3%	64.9%	72.1%	77.1%	76.1%	83.6%	53.9%	59.0%
AVGS	**58.5%**	**73.0%**	**71.5%**	**70.0%**	**83.0%**	**82.3%**	**80.9%**	**85.8%**	**84.4%**	**83.1%**	**77.9%**	**79.1%**

Averages over the entire period show that all four environments have seen higher rates of officer recruiting success than NCM success, so this paper will focus especially on NCM occupations as most significantly affected by recruiting achievement. The data also shows that internal recruiting consistently outperforms external recruiting in officer occupations, and significantly underperforms in NCM recruiting in every environment except ACMP, most especially in the Navy and Army, highlighting the effect of net transfer in those environments.

Annex C: Issues in LRPM and OSSM Models

Two models were discussed in this report which may be of further interest to the reader and whose format points to some of the targeting errors highlighted here.

The first is the Long-Range Planning Model (LRPM). This model takes as input, the typical training capacity for each occupation's training institution to OFP, the planned expansion or contraction of the occupation's TEE over a ten-year period, and a user's desired SIP within each of the occupation's entry plans. Its output is a recovery model for each rank band that assumes the desired SIP is met, after accounting for release rates from the occupation and expected promotion rates.[133]

This model fails to account for the lower than 100% SIP achievement, and is unable to react to a training system that could surge to meet required intake in a stressed occupation. It also does not factor in promotion rates that reflect the reality of the occupation.[134] Most critically instead of intaking strategic direction (e.g. recovery rates) and outputting required SIP to meet that direction, it has as its input the SIP and outputs recovery, leaving it to the user to determine the required SIP for the occupation. As shown above in the sections referring to the model, its use, and communication between the stakeholders, the SIP intake has been shown to have been adjusted downwards in many occupations in 24/25 to avoid stressing training resources (either those specific to the occupation, or those for the CAF as a whole such as Basic Training). As each occupation in the current construct calculates SIP and recovery differently, there is

[133] These factors are calculated by DRWA and are included within the model's supporting tables.
[134] Higher promotion rates in more stressed occupations, or low rates into rank bands which have a bubble of candidates.

significant risk of user error, with occupations either asking for too much SIP to support recovery, or not enough.

An example of the input and output of the LRPM is shown below. Table 34 shows the inputs from the occupation authority, in an example for the NCS ENG occupation at 2025 Quarter 3. The four user input sections (in green) are Preferred Manning Level (PML, an obsolete value which is now referred to as the TEE), BTL/SUTL population, SIP, and Occupation Training Production.

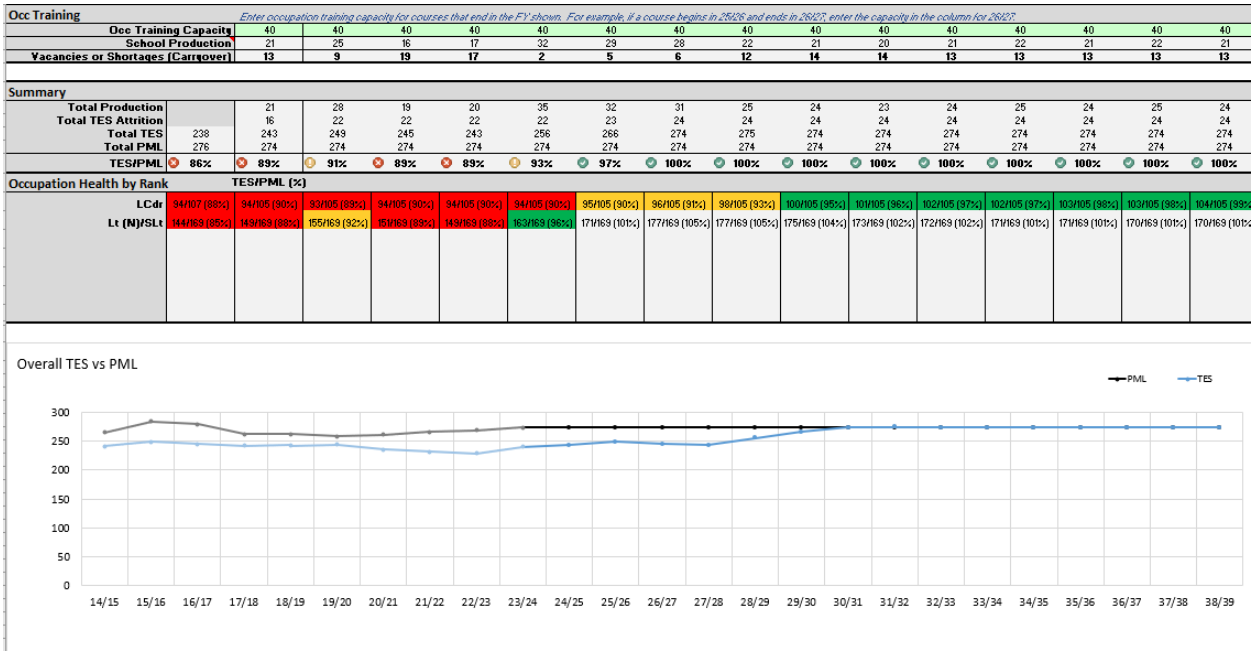
Table 34: Inputs to the LRPM[135]

NCS ENG - 00344													
FY		**24/25**		**25/26**	**26/27**	**27/28**	**28/29**	**29/30**	**30/31**	**31/32**	**32/33**	**33/34**	**34/3**
		to date	remainder										
PMLs	**Current TEE**	*Enter total PMLs for remainder of the current FY and for each future FY based on expected establishment changes.*											
LCdr	107	105		105	105	105	105	105	105	105	105	105	105
Lt (N)/SLt	169	169		169	169	169	169	169	169	169	169	169	169
Total	276	274		274	274	274	274	274	274	274	274	274	274
BTL-SUTL		*If known, enter the expected production for personnel currently on the BTL. Account for expected attrition. The sum should not exceed the size of the current BTL.*											
Current BTL-SUTL population	105												
Expected BTL-SUTL production *(if known)*		21		25	15	10	8	5	5	1	0	0	0
Estimated BTL-SUTL production *(calculated by model)*		12		15	15	12	11	11	6	0	0	0	0
Adjusted BTL-SUTL production *(based on above two rows)*		21		25	15	10	8	5	5	1	0	0	0
SIP	**Working Target**	**Unfilled SIP Target**	**Projected Intake**	*Enter the expected intake that will occur during the remainder of the current FY and enter the SIP for each future FY.*									
DEO	12	10	3	30	30	20	4	4	4	5	6	5	6
ROTP/ROTP CT	25	18	12	22	22	22	22	22	22	22	22	22	22
DEO CT	2	2	0	2	2	2	2	2	2	2	2	2	2
SCP	2	1	0	2	2	2	2	1	1	1	1	1	1
CFR	2	1	0	2	2	2	2	2	1	1	1	1	1
SRCP	1	1	0	1	1	1	1	1	1	1	1	1	1
UTPNCM	4	0	0	2	2	2	2	2	2	2	2	2	2
OT	4	4	3	4	4	4	4	2	2	2	2	2	2
COT (Intake/Limit)	0	5	1	0	0	0	0	0	0	0	0	0	0
Total	52	42	19	65	65	55	39	36	35	36	37	36	37
Occ Training		*Enter occupation training capacity for courses that end in the FY shown. For example, if a course begins in 25/26 and ends in 26/27, enter the capacity in the column for 26/27.*											
Occ Training Capacity		40		40	40	40	40	40	40	40	40	40	40
School Production		21		25	16	17	32	29	28	22	21	20	21
Vacancies or Shortages (Carryover)		13		9	19	17	2	5	6	12	14	14	13

The following Table and figure shows the outputs from the model, after factoring several aspects of progression like attrition and promotion rates.

[135] Sourced from the LRPM, an DPGR internal modelling tool.

Table 35: Output from the LRPM[136]



Occ Training	Enter occupation training capacity for courses that end in the FY shown. For example, if a course begins in 25/26 and ends in 26/27, enter the capacity in the column for 26/27.															
Occ Training Capacity		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
School Production		21	25	16	17	32	29	28	22	21	20	21	22	21	22	21
Vacancies or Shortages (Carryover)		13	9	19	17	2	5	6	12	14	14	13	13	13	13	13
Summary																
Total Production		21	28	19	20	35	32	31	25	24	23	24	25	24	25	24
Total TES Attrition		16	22	22	22	22	23	24	24	24	24	24	24	24	24	24
Total TES	238	243	249	245	243	256	268	274	275	274	274	274	274	274	274	274
Total PML	276	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
TES/PML	86%	89%	91%	89%	89%	93%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Occupation Health by Rank	TES/PML (%)															
LCdr	94/107 (88%)	94/105 (90%)	93/105 (89%)	94/105 (90%)	94/105 (90%)	94/105 (90%)	95/105 (90%)	96/105 (91%)	98/105 (93%)	100/105 (95%)	101/105 (96%)	102/105 (97%)	102/105 (97%)	103/105 (98%)	103/105 (98%)	104/105 (99%
Lt (N)/SLt	144/169 (85%)	149/169 (88%)	155/169 (92%)	151/169 (89%)	149/169 (88%)	163/169 (96%)	171/169 (101%)	177/169 (105%)	177/169 (105%)	175/169 (104%)	173/169 (102%)	172/169 (102%)	171/169 (101%)	171/169 (101%)	170/169 (101%)	170/169 (101%

The model above shows a trendline for an occupation whose TES has been decreasing consistently since 15/16, but one which will immediately recover to full health beginning in 23/24 and ending within six years (returning to PML). This despite the school production operating at about half the set occupation training capacity during that time, and the intake significantly missing the SIP target with only one quarter of recruiting left to go.

This logic is inconsistent for several reasons. First, the model requires each occupation to individually determine what its recovery should look like for itself, inputting trial and error SIPs instead of CMP coordinating and implementing a central strategy to recover the CAF. Second, the model will only allow recovery as quickly as the current training program allows; in other words, there is no built-in consideration to surge training (in the example above, to meet the

[136] Sourced from the LRPM, an DPGR internal modelling tool.

occupation's training capacity) to respond to an unhealthy occupation and allow it to recover quickly. This is also hugely dependent on the training system's own attestation of its ability to train. Third, the model clearly does not respond even in the current year to unmet SIP targets to boost future year targets. Table 33 shows that at FY quarter three, NCS ENG is significantly missing its targets – but no adjustments are provided by the system to follow-on years to make up for this performance deficiency[137]. Fourth, this lack of agility includes no change in the allocation of entry plans to react to opportunities. The model predicts that in two years the training system will be operating at half capacity, but it does not react to increase the SIP of quickly trainable Direct Entry Officers who could immediately undergo training and fill this gap, for instance.[138] Finally, the system factors in attrition from the TES but not attrition from the BTL / SUTL; with four years university and at least two years of occupational training, almost half of university training plan members will not make it to OFP[139]. This reality is not correctly reflected, with later years having SIPs in the mid-30s and production to OFP in the mid-20s, and BTL Production showing high success.[140]

The second model identified is the Occupation Structure Sustainability Model (OSSM), a tool for determining, at a pre-set TEE, promotion rates in each rank band of an occupation and thus, whether the occupation is sustainable long term, after factoring in a variety of requirements

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[137] An intake of 19, of a target of 52 (with targets lower than the occupation intended), with only a quarter remaining in the recruiting year.
[138] Shown by a school production value of 16 and 17 of a potential 40 candidates to OFP, two and three years from the current period.
[139] A release and transfer rate of 9.4%, applied six years in a row to an occupation with a six-year average time to OFP, results in a total cumulative rate of 47% by the time members reach OFP. Though some members like direct entry officers will finish more quickly and thus release at a lower rate, the SIPs in the example above are a majority in university training programs and do not account for any training delays.
[140] FY 24/25 to 31/32 BTL / SUTL production, summed, adds to 85 members from a BTL/SUTL population of 105 being generated to OFP. A 9.4% release and transfer rate compounded over a six-year period would result in 58 remaining members at OFP.

like time in rank, release rates, and so on. The primary issue with this model is its reliance on a desired state (TEE) rather than the current state of the occupation (TES). As an occupation gets unhealthier, and a higher percentage of members are required to be promoted to sustain its structure, at some point there will reach a point where all members in occupation within that rank band's Entry into the Promotion Zone (EPZ) must be promoted to sustain the occupation. If the occupation continues to decrease beyond this point, the occupation is no longer sustainable (even if it would have been in OSSM at full strength). The occupation must also recover, meaning higher promotion rates will be required until it returns to full strength and steady state; this model does not account for those realities. Table 36 below shows that the model's inputs only factor PML (TEE), and not TES.

Table 36: Input to the OSSM[141]

DGMPRA

Regular Force Occupation Structure Sustainability Model (OSSM) *Last updated 3 Nov 2016.*

MOSID (RegF) 00344-00346
Occupation RCN ENG

Green cells: Mandatory user input
Blue cells: Optional user input
Yellow cells: Results

Input				Choose One Parameter	Reset	
Rank	Attrition Rate	Minimum TIR at Promotion (CFAO)	Adjustment to TIR Required by Occupation	Desired PML Solve	Desired Promotion Rate Solve	Desired Average TIR at Promotion Solve
Col	14.5%			12		
LCol	9.9%	3		57		
Maj	8.1%	4		225		
C/Lt (combined)	5.5%	6		314		
(not used)						
(not used)						
(not used)						
			Total PML	608		

[141] Sourced from the OSSM, a DPGR internal modelling tool.

As shown above, input is solely the PML (TEE) of the occupation – not the current TES. It is unclear if attrition rates are from the occupation (release + transfer) or CAF (solely release). The model outputs the following data:

Table 37: Output from the OSSM[142]

Results shown for desired PML.

	Results					
Rank	**PML**	**Promotion Rate (% of Pers with Total Min TIR)**	**Promotion Rate (% of Pers with Min TIR (CFAO))**		**Average TIR at Promotion**	
			RCN ENG	Officer Average	RCN ENG	Officer Average
Col	12					
LCol	57	5%	5%	*5%*	9.0	*9.3*
Maj	225	5%	5%	*6%*	10.5	*10.9*
C/Lt (combined)	314	22%	22%	*12%*	8.7	*11.1*
Total PML	608					
Attrition Volume	**43**					
Attrition Rate	**7.1%**					

The output shows that the occupation above is sustainable, with low promotion rates at middle ranks and a medium rate at the lowest rank. However, should the occupation run short, it would follow a typical trajectory of having a "missing middle": respectable health at entry rank and terminal rank, but low health in the middle ranks. This results in faster than normal promotion rates through the middle ranks to replace missing personnel, and thus, lower average Time in Rank (TIR) at promotion. If the occupation becomes short enough that the TIR falls lower than the EPZ, the occupation would not be able to promote enough members to sustain itself.

[142] Sourced from the OSSM, a DPGR internal modelling tool.

CMP or occupation authorities should analyze the unhealthiest occupations through this lens to determine if they remain sustainable with their current TES, and if not, rationalize the TEE, reduce training and take temporary action to recruit to a level that returns the occupation to sustainability. The OSSM should also expand to include different health values, to alert occupation authorities to when an occupation might approach such an unstable state. Though whether the occupation is sustainable at TEE is of value, of more value is whether the occupation is sustainable as it stands today.

Annex D: Calculation of an Ideal BTL

The ideal number of members in an occupation's BTL at steady state depends on the number of members needed to be generated to OFP per year, and the residence time of those members (the length of time to make it to an occupation's OFP), factoring in the number of members who will release while trained. This may be expressed mathematically, described in the following sections. Some of the description is derived from or expands on mathematical relationships earlier described by Serré.[143]

The total members in an occupation consists of those on the BTL, in the TES, on the SPHL (long term medical) and NES (soon to release), and may be expressed as:

$$BTL + TES + SPHL + NES = Total$$

Based on the short-term temporary nature of SPHL and NES, the occupation's total can be said to closely approximate:

$$BTL + TES = Total$$

Attrition rates apply to both BTL and TES, as follows:

$$BTLReleases + BTLTransfers = BTLAttrition$$

$$TESReleases + TESTransfers = TESAttrition$$

$$BTLAttrition + TESAttrition = TotalAttrition$$

$$TotalAttrition / Total = AttritionRate$$

[143] Serré, 'Managing the Personnel Resources of a Military Occupation: Attrition Forecasting and Production Planning'.

For an occupation to maintain its total number of members, the number of recruits (from both internal and external sources) must equal the total number of releases and transfers (attrition) from the occupation. Additionally, the attrition from the TES is what must be generated to OFP to maintain the occupation's TES (replacing those who were trained and working in establishment positions). Both balances are key to maintaining occupational health, the former indirectly and the latter directly.

$$\boxed{\textit{TES Attrition} - \textit{Members to OFP} = \textit{DeltaTES}}$$

Note, "no change" or a zero DeltaTES in the equation above will result in a steady state OFP at any occupational health ratio, and the number of trained releases and transfers will be higher the healthier an occupation is (with more total members releasing at a given historical release rate). In other words, the more people are in the occupation's TES, the higher nominal attrition will be expected and the higher number of members generated to OFP must necessarily be to maintain a steady state. Thus, the ideal BTL may be defined as the number of untrained members needed to meet a steady state OFP production requirement when the TES of an occupation is at its TEE (i.e. when the occupation's trained cadre is full). The larger an occupation is, the larger its BTL must be, and the more recruits it needs; the longer members stay on the BTL, the more possibility they may release, increasing the BTL requirement; and the higher the pre-OFP release rate is, the more an occupation is impacted in its ability to generate members to OFP.

Based on the formulas expressed above, the mathematical relationship of the total number of members in an occupation, the TEE, BTL, SIP and members generated to OFP can be expressed in four formulas:

1. $TEE + BTL = Total$ – The total members in an occupation is composed of the TEE and BTL/SUTL
2. $SIP = Total \times AttritionRate$ – The SIP must replace releasing members at steady state at any occupational health.
3. $BTL / YearsToOFP = MembersToOFP$ – assuming a steady state, the more members are on BTL the more can be generated to OFP. The longer it takes, the fewer can be generated to OFP, an inverse relationship
4. $MembersToOFP = TES \times AttritionRate$ – to restore TES, the members attriting from TES must be replaced by members generated to OFP.

For an occupation where the Attrition Rate, TEE and Years to OFP are known, there remain five variables in four formulas, an unsolvable equation (SIP, Total, MemberstoOFP, TES and BTL). However, when TES is equal to the TEE (i.e. when the occupation is at full health) a fifth equation $TEE = TES$ allows the problem to become solvable, where BTL is the Ideal BTL.

As an example for a fictional occupation with a 9.4% Attrition Rate, a TEE of 1000 and one year to generate a member to OFP (as in most NCM occupations), the Ideal BTL could be calculated as:

$MemberstoOFP = TES \times AttritionRate = TEE \times AttritionRate$

$MemberstoOFP = 1000 \times 9.4\% = 94$ - members leaving TES per year who must be replaced with those generated to OFP

$MemberstoOFP \times YearstoOFP = 94 \times 1 = 94$ - an Ideal BTL of 94 at steady state and full occupational health (TES=TEE).

An occupation with a higher than Ideal BTL is on average recovering, at a lower TES.

For a real-world example, applied to the MAR TECH occupation described in the RCN Case Study in Part 2, at the beginning of FY 24/25 the occupation has a TEE of 1920.[144] With a 9.4% attrition rate[145], this equals 181 members releasing from TES, requiring the same number to be generated per year to OFP. With approximately a one-year training time to OFP, an Ideal BTL should be a similar size, resulting in an ideal total number of members in the occupation of 2101 at steady state and full occupational health.

$$TEE + BTL = Total = 1920 + 181 = 2101$$

The steady state SIP could then be calculated as:

$$SIP = Total \times AttritionRate = 2101 \times 9.4\% = 198$$

The given 24/25 SIP of 211, if met, would provide very minor recovery and a recovery timeline of several decades.[146] To recover the occupation at 2% per year, or 42 members per year, this would need to be added to the steady state SIP.

$$198 + 42 = 240$$

A minimum SIP of 240 per year to sustain a BTL of 240 per year would be needed until recovery is achieved, and training systems would need to plan to train and support those members for the intended recovery to take place. Numbers are estimated to show the example above, but this Ideal BTL should be calculated more accurately using DGMPRA data for every occupation and used to inform establishment and training decisions, rather than training capacities governing SIP and in turn, governing the BTL.

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[144] Government of Canada, 'Establishment and Strength Report - Breakdown by MOSID - March 2024'.
[145] Calculated from release and transfer rates earlier in this report.
[146] Government of Canada, 'FY 24/25 Horizon 2 Reg Force Strategic Intake Plan'.

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