Telecommuting and the Canadian Armed Forces: Time to Evolve the Workplace

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Table of Contents

ACKNOWLEDGEMENTS

ABSTRACT

Telecommuting gained popularity when the COVID-19 Pandemic thrust it upon the world. As successful businesses commit to telecommuting, should the Canadian Armed Forces (CAF) follow suit and include telecommuting as part of a strategy to evolve the workplace? In answering the question, this paper will focus on telecommuting as a means of achieving the CAF's diverse goals for recruiting, retention, business continuity and reducing greenhouse gas emissions. The paper will further investigate the unique problems and risks the CAF is likely to encounter by adopting telecommuting. Based on the research, a series of recommendations will emerge for adopting the workplace arrangement.

The preliminary analysis suggests that the flexibility provided by telecommuting reduces barriers to entry into the CAF, helping it achieve diversity targets. Geographical moves significantly affect the quality of life for military families and reducing them through telecommuting could significantly improve retention. Telecommuting diffuses the concentration of Department of National Defence members in Ottawa, which has made the organization susceptible to localized natural disasters, increasing its risk to business continuity. Telecommuting reduces greenhouse gas emissions from commuting and maintaining office space, aligning with the government's green goals.

The military will encounter specific leadership, cyber threat and training issues from telecommuting but the analysis suggests that these can be overcome by utilizing reserve units across the country as a web of interconnected satellite offices. This will provide the greatest combination of benefits for the CAF with the least amount of drawbacks from telecommuting.

INTRODUCTION

Freelancing, homeworking, outworking, cybercommuting, home based employment and teleworking are all terms that have become synonymous with telecommuting in the 21st Century. The original telecommuting experiment in the 70's involved a satellite workstation in the suburbs of Los Angeles, connected to the downtown office.[1] Employees leisurely walked to work on sunny days while their less fortunate colleagues sat in gridlock, lamenting their commute to the downtown office. The company Christmas party must have been loath with jealously as fit, tanned telecommuters bragged about all the money they saved on gas.

The advent of the personal computer in the 80's enabled employees to work from home and dial in to the office using phone lines. Employees were suddenly free from the standard nine to five workweek at the office, able to meet their kids getting off the bus, change a load of laundry or go for a mid-day hike as long as they completed their work on time. But what of the office gossip, co-worker's birthday cake during the lunch break and professional friendships? How does a supervisor observe work ethic, motivate employees and give public recognition for a job well done? The newfound freedom must have quickly lost its luster for some telecommuters who lacked social circles outside of work and the extroverts who thrive off of public recognition.

Using the internet and mobile data connections, employees can now telecommute from anywhere in the world. Like a scene from the Brady Bunch opening, employees sit in front of a computer screen full of talking heads, collaborating on complex projects, all

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[1] Brooke Adams, "Rocket Scientist Opened Door to Telecommuting," *Desert Times*, 16 December 1996, https://www.deseret.com/1995/12/16/19210470/rocket-scientist-opened-door-to-telecommuting

the while having never met in person. The central place of work can now be completely

virtual, negating the need for costly office space and downtown city cores. Employees

may work wherever they choose, at home, in a rented office space or on a tropical beach.

Telecommuting would appear to be the Holy Grail of work arrangements, begging the

question, what is telecommuting?

Telecommuting encompasses varying work situations where technology enables

remote work. Bailey and Kurland defined telework as, "working outside the conventional

workplace and communicating with it by way of telecommunications or computer-based

technology."[2] Gajendran and Harrison provide a more detailed definition,

> Telecommuting is arrangement in which employees perform tasks
> elsewhere that are normally done in a primary or central workplace, for at
> least some portion of their work schedule, using electronic media to
> interact with others inside and outside the organization.[3]

While there are numerous definitions for Telecommuting, they are all based on the

common idea of using technology to perform work remotely, where and when it makes

the most sense.

Telecommuting is more than just a work arrangement; it is an evolution of

society. Telecommuting provides freedom for where people live as they are not

geographically tied to a central place of work. The East Coast real-estate boom during the

COVID-19 Pandemic has been attributed to telecommuting as, "buyers are moving to the

region [Atlantic Canada] knowing that the shift to working from home means they no

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[2] D. Bailey, and N.B. Kurland, "A review of telework research: Findings, new directions and lessons for the study of modern work," *Journal of Organizational Behavior*, 23, (2002): 384.

[3] R. Gajendran, and D. Harrison, "The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences," *Journal of Applied Psychology*, 92, no. 6 (2002): 1525.

longer need to be near expensive city centres like Toronto and Montreal."[4] Societal preferences are diverging from the normal nine to five office workweek with over 60% of telecommuters in a study of Gold Coast City, Australia, stating they telecommute for the lifestyle it offers, and 81% stating that they would prefer to continue to telecommute.[5] Australian demographer Bernard Salt describes the evolution of residential areas to multi-use environments from the rise of telecommuting as, "the quiet revolution occurring in suburbia."[6]

The COVID-19 Pandemic forced many organizations, including the Canadian Armed Forces (CAF), to adopt telecommuting to minimize physical interaction and limit the spread of the virus. The CAF was forced to modernize many organizational processes and use new technologies such as video conference meeting software like Zoom, Microsoft Teams and remote network connections. From March 2020 to April 2021, after a full year of telecommuting, many large corporations have permanently adopted the practice and are divesting their office spaces,[7] suggesting there are benefits to the work arrangement beyond keeping workers safe during the pandemic. As the pandemic is further studied and its effects controlled, should the CAF return to business as usual or follow the lead of many successful businesses and include telecommuting as part of its long-term strategy because the benefits will outweigh the drawbacks?

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[4] Victor Ferreira, "Atlantic Canada's housing market on fire as buyers from across the country swoop in to snap up homes," *Financial Post*, 23 October 2020. https://financialpost.com/real-estate/how-the-pandemic-lit-the-fire-of-a-red-hot-real-estate-market-inside-the-atlantic-bubble

[5] Matthew Zenkteler *et al.*, "Home-Based Work in Cities: In Search of an Appropriate Urban Planning Response." *Futures : The Journal of Policy, Planning and Futures Studies* (2019): Section 4.1.

[6] nbn co ltd, "Super connected lifestyle locations: The rise of the 'e-change' movement," ABN: 86 136 533 741, 2016. https://www.nbnco.com.au/content/dam/nbnco2/documents/Super%20connected%20lifestyle%20locations_nbn%20report_FINAL.PDF

[7] Joey Hadden *et al.*, "17 Major Companies That Have Announced Employees Can Work Remotely Long Term," *Entrepreneur*, 17 August 2020. https://www.entrepreneur.com/article/354872

While the CAF is not a business, it shares many common, diverse goals with its profit-oriented brethren: to reduce costs, recruit and retain talented individuals, provide value, and maintain good public relations. Businesses must evolve their practices to meet society's changing expectations or risk losing employees, customers and profits. In a similar fashion, the CAF must also react to society's changing preferences as the organization competes for employees and must curry the favour of the government who apportions its yearly budget. Businesses are using telecommuting as a solution to numerous challenges and the CAF risks being left behind in the labour market and in the market of public opinion if it fails to follow suit. Given Canada's contemporary societal preferences, the CAF will need to incorporate telecommuting into its strategy to achieve its diverse goals.

As businesses adopt the remote work place arrangement and with a cursory understanding of telecommuting, the potential benefits for administrative or digital workers quickly becomes apparent. Workers should prefer the flexibility of having a telecommuting option, which would help the CAF with recruiting and retention. There is an expectation that workers working from home do not require office space and the CAF could save on real-estate costs. Avoiding the daily commute to work saves time and money for workers while reducing emissions from vehicles powered by internal combustion engines, helping the government, and by extension the CAF, achieve their green goals.

Telecommuting likely has its limitations in the CAF; the thought of a military mechanic working on a Leopard 2A4 main battle tank from home seems preposterous, as does a soldier doing drill in front of their laptop. Certain jobs will require proximity to

equipment found on bases, likely a limiting factor of the workplace arrangement. The military prides itself of being a homogenous organization with rigid routines, and the transition to flexible routines with isolated members acting as individuals will likely pose a challenge for leaders trying to maintain the warrior's spirit. While these limitations seem insurmountable, the CAF successfully trains and leads 27,000 reservists in uniform[8], spread throughout the country away from bases, indicating that telecommuting in the CAF is more feasible then it may appear.

Methodology

Over a dozen scholarly articles from psychology, social sciences and business journals were used to derive the theories on the benefits and drawbacks of telecommuting. A combination of contemporary journal, news media and open sourced web information were sourced to validate the theories. Canadian law, Government of Canada, and Department of National Defence documents were consulted to provide the CAF goals and their legal underpinning. Reports from the CAF ombudsman, census data from Statistics Canada, and news media sources were used to outline the challenges associated with the previously identified goals. Holistically, these sources define the CAF problem set, against which the benefits and drawbacks of telecommuting will be applied.

The US culture places a great emphasis on their military, and with approximately ten times the population of Canada, contains a wealth of military research resources. Canada and the US have a similar Western culture, military structure and expectations of their military families. Due to these similarities, scholarly articles and government data

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[8] Government of Canada, "Mandate of National Defence and the Canadian Armed Forces," last updated 24 September 2018. https://www.canada.ca/en/department-national-defence/corporate/mandate.html

based on the US population have been used in lieu of Canadian specific data which could not be found. Sources on urban planning from Australia and British military spouses' perspectives were viewed as relevant, and also included due to their similar Western culture. Sources based on Canada and the CAF were given precedence in the research of this paper but those from other Western cultures have been used when no suitable Canadian source could be found.

The first chapter provides a brief overview of telecommuting. The history covers the origin story of telecommuting in the 1970's through to the widespread adaptation during the COVID-19 crisis. Theories on the benefits and drawbacks of the workplace arrangement are introduced along with some conflicting studies. Finally, the legal rights to request telecommuting in Canada, and the CAF's position on telecommuting, provide the basis from which the arguments build upon.

The second chapter explores the CAF's recruiting goals and the challenges they are facing in achieving those goals. The preferences for flexible work arrangements amongst the different generations is explored to highlight the general preferential trends required for recruiting strategies. CAF recruiting goals and barriers to recruitment are examined separately for minorities and women. In researching the challenges of attracting these segments of the workforce, the focus of this paper remains workplace preferences and does not explore racism, misogyny or other factors influencing the recruitment of a diverse workforce. The chapter concludes on the need for telecommuting to form part of the CAF's strategy to recruit.

The third chapter investigates the challenges the CAF has with retaining its military members. The reasons and their prevalence among departing members are

examined using an exit survey analysis conducted by Defence Research and Development Canada. The survey implicates geographical moves as a significant influential factor in leaving the force. The effects of a geographical move on military member's families is then explored in depth, specifically in the areas of well-being, finance, healthcare and educational. The chapter concludes on telecommuting as a means to reduce geographical moves and improve retention.

The fourth chapter explores the benefits of telecommuting on other CAF requirements: business continuity planning and the environment. The legal requirement for business continuity planning is discussed followed by the CAF's reaction to environmental disasters and the current COVID-19 threat to business continuity. Canada's current greenhouse gas emissions targets are reviewed along with the potential benefits of telecommuting on reducing vehicle born emissions and the DND's real-estate footprint. The chapter concludes on the benefits of telecommuting regarding business continuity and the environment.

The fifth chapter discusses the unique challenges the CAF will encounter in implementing widespread telecommuting and provides a potential solution with recommendations. The chapter begins exploring the nature of direct leadership in the CAF and challenges associated with leading members remotely. Then the premise of the CAF as a total institution, its importance in leading the institution along with the effects of remote work on maintaining the total institution are investigated. The unique requirement for universality of service and military work requirements are further explored to determine the feasibility and limitations of long-term telecommuting in the CAF. This section concludes on the specific CAF related leadership and work

requirement challenges of telecommuting. Given these challenges, a proposition is made to use reserve units as remote satellite work stations as a form of telecommuting. This idea is further developed through a series of recommendations that conclude the chapter.

The conclusion summarizes the current challenges facing the CAF and presents telecommuting as a potential means to overcome those challenges. The CAF's problems with recruiting, retention, business continuity planning and environmental goals are revisited emphasizing telecommuting as a solution. The chapter concludes with the unique telecommuting challenges for the CAF and a mitigation strategy through the proposed recommendations. The conclusion ends with a series of areas for further research and the final words.

CHAPTER 1 - TELECOMMUTING

History of Telecommuting

Telecommuting is not a new phenomenon and has slowly become a wide spread practice since the 70's. The origin of the term telework and the idea of telecommuting has been attributed to physicist and NASA Engineer Jack Nilles. During the 1970's, Nilles lived in Los Angeles, a growing city struggling with traffic congestion and extended commute times. Due to the oil crisis, the conservation of gasoline was a national priority, further exasperating the fuel inefficient city gridlock. During a Desert Times interview, Nilles describes how a simple question from a stranger led him down the road of telecommuting, "If you can put man on the moon why can't you do something about traffic?"[9] Niles had a revelation, "… a fairly substantial part of the work force doesn't need to go to work if they have the right technology."[10] As the Director of Interdisciplinary Research at the University of Southern California, Niles began working on the telecommunications-transportation tradeoff, which would later become a co-authored book. Niles describes the blank stares he would get trying to explain what he was researching and therefore coined the term *telecommuting* as it was more understandable.[11] The combination of a simple question and traffic congestion would begin a slow revolution of the workplace.

The adaptation of telecommuting over the years would ebb and flow. Niles found an insurance company willing to trial this new workplace arrangement. As the internet and the personal computer had yet to be invented, the insurance company established a

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[9] Brooke Adams, "Rocket Scientist Opened Door to Telecommuting," *Desert Times*, 16 December 1996, https://www.deseret.com/1995/12/16/19210470/rocket-scientist-opened-door-to-telecommuting
[10] *Ibid.*
[11] *Ibid.*

satellite office outside of the city, which was connected to the downtown office's main server. Niles describes it as a success, saving the company millions; however, the practice was terminated when the company feared the distance from the main office would invite workers to unionize, [12] thereby driving up labour costs and reducing profits. The execution was a success and the concept was born but businesses were weary of losing control over employees and therefore were slow in adopting such a revolutionary practice.

Telecommuting became a recognizable workplace arrangement over the following 40 years. By the late 80's, it had gained popularity with an estimated 500 companies having a telecommuting program.[13] Large companies such as J.C. Penny, IBM, Johnson and Johnson, and American Express were reporting positive experiences,[14] but the practice would remain only a novel idea. Another surge in telecommuting would occur in the 2000s with prominent companies such as Yahoo, IBM and Best Buy praising the practice; however, it would be short lived and by 2015, many companies would terminate their programs over concerns of productivity and teamwork.[15] While the hype surrounding telecommuting died down, approximately 10-11% of the Canadian workforce continued to telecommute.[16] The number would continue to grow prior to the COVID-19 Pandemic in 2019, with Statistics Canada estimating 13% of Canadian workers participating in some form of telecommuting out of the estimated 40% of jobs

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[12] *Ibid.*

[13] Marcia M. Kelly, "The Work-at-Home Revolution," *The Futurist* 22, no. 6 (1988): 28.

[14] Wendell H. Joice, "Home Based Employment—A Consideration for Public Personnel Management," *Public Personnel Management* 20, no. 1 (1991): 53.

[15] Richard Cooke, "The Wages of Remote Work," *New Republic* 252, no. 1/2 (January 2021): 40.

[16] Martin Turcotte, "Working at home: An update," *Canadian Social Trends*, Statistics Canada Catalogue no. 11-008-X. (2010).

that could be performed remotely.[17] From a single insurance company in the 70's to 13% of the Canadian workforce in 2019, telecommuting slowly gained in popularity amongst businesses and employees.

The COVID-19 Pandemic thrust telecommuting practices to the forefront of business and government. The nature of the virus requires proximity for transmission, therefore traditional workplaces with adjacent cubicles and common bathrooms became a health risk to the workforce. The solution for many employers was telecommunication with an estimated 62% of the America workforce, [18] and 40% of the Canadian workforce[19] partaking in the practice mid-pandemic in 2020. This sudden, widespread acceptance of telecommuting was predicted by California Polytechnic State academic Ralph Westfall. He postulated that telecommuting failed to gain acceptance in the workplace because it was viewed as illegitimate by managers unless there was a *real* reason, such as health issues, that prevented an employee from easily leaving their home. To gain widespread acceptance, Westfall hypothesized that a worldwide excuse would be required to legitimize the work arrangement.[20] The pandemic appears to have been the required worldwide excuse as 100% of the potential Canadian telecommuting workforce telecommuted during the pandemic. Jack Niles thought it would take 20-40 years for telecommuting to become a real work alternative in 1973,[21] and with half of the North

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[17] Zechuan Deng, Rene Morissette and Derek Messacar, "Running the economy remotely: Potential for working from home during and after COVID-19," Statistics Canada, Catalogue no. 45280001, 28 May 2020, https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00026-eng.htm

[18] *Ibid*. 40.

[19] Statistics Canada, "Canadian Perspectives Survey Series 1: Impacts of COVID-19 on job security and personal finances, 2020." *The Daily*. Statistics Canada Catalogue no. 11-001-X. (2020).

[20] Richard Cooke. "The Wages of Remote …," 42.

[21] Brooke Adams, "Rocket Scientist Opened Door …"

American workforce telecommuting, he was only off by 7 years and one worldwide pandemic.

Benefits of Telecommuting

There are numerous benefits associated with telecommuting for employees and employers. Employees can profit from flexibility in where and when they work. There are positive psychological aspects associated with the perceived autonomy offered by the workplace arrangement. Telecommuting touts increases in productivity, benefiting both employees and employers. Employers are able to reduce workspace costs, and recruit from larger pools of labour. Telecommuting has the potential to help improve employee's lives and employer's profitability.

Telecommuting provides flexibility to workers. Some employees will primarily benefit from choosing when they will work, allowing them to balance work-life time requirements.[22] Others will benefit from where they will work, allowing them to reallocate time from commuting to other endeavors or eliminate time pressures.[23] Promotions and downsizing often requires a relocation of employees, which disrupts families and has employment implications for spouses.[24] Telecommuting disassociates employment from a geographical location allowing companies to reallocate employees, or employees to seek new employment, without disrupting the family by moving. Employees can benefit in many ways from the flexibility that telecommuting provides.

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[22] Sheldon Zedeck and Kathleen L. Mosier, "Work in the Family and Employing Organization," *The American Psychologist* 45, no. 2 (1990): 246.

[23] Nicole B. Ellison, "Social Impacts: New Perspectives on Telework," *Social Science Computer Review* 17, no. 3 (August 1999): 349. https://doi.org/10.1177/089443939901700308.

[24] Sheldon Zedeck, and Kathleen L. Mosier. "Work in the Family …," 247-248.

Telecommuting provides psychological benefits that improve employees' well-being. The flexibility provided by telecommuting is likely to increase workers' feelings of autonomy,[25] leading to higher job satisfaction.[26] The flexibility to regulate time has the potential to reduce employee's stress from work-family conflict.[27] Workers who can telecommute feel that their employer is supportive of their desire to balance work and life.[28] Telecommuters' working conditions are also likely to improve as they have more control over their workspace, which improves life satisfaction.[29] Telecommuters can benefit from improved job and life satisfaction, feelings of value from their workplace and a reduction in stress, thereby improving their well-being.

The improved productivity of telecommuters is theorized to be the greatest benefit of the workplace arrangement; however, history has produced mixed results. A study of a compressed workweek by Latack and Foster noted increased productivity, reduced overtime costs, and a reduction in sick leave taken by employees.[30] Another study by DuBrin noted a 30% increase in productivity by telecommuting employees performing data entry and coding.[31]

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[25] Boas Shimar and Ilan Salomon, "Work-at-Home and the Quality of Working Life," *Academy of Management.the Academy of Management Review (Pre-1986)* 10, no. 3 (07, 1985): 456.

[26] Andrew J Dubrin, "Comparison of the Job Satisfaction and Productivity of Telecommuters versus In-House Employees: A Research Note on Work in Progress," *Psychological Reports* 68, no. 3 (June 1991): 1224, https://doi.org/10.2466/pr0.1991.68.3c.1223.

[27] Sumita Raghuram and Batia Wiesenfeld, "Work-nonwork Conflict and Job Stress among Virtual Workers," *Human Resource Management* 43, no. 2-3 (2004): 260.

[28] Malissa A. Clark *et al.*, "Organizational Support Factors and Work–Family Outcomes: Exploring Gender Differences," *Journal of Family Issues* 38, no. 11 (August 2017): 1534, https://doi.org/10.1177/0192513X15585809.

[29] Dubrin, Andrew J. "Comparison of the Job …," 1224.

[30] Janina C. Latack and Lawrence W. Foster, "Implementation of Compressed Work Schedules: Participation and Job Redesign as Critical Factors for Employee Acceptance," *Personnel Psychology* 38, no. 1 (1985): 88-89.

[31]Dubrin, Andrew J. "Comparison of the Job…," 1233.

The implementation of telecommuting by large corporations, contrary to the studies, reported a reduction in productivity. After the turn of the century, Yahoo, IBM and Best Buy all implemented a form of telecommuting. At its height in 2009, 40% of IBM's workforce was telecommuting. The purported benefits of the practice, however, were not materializing and therefore all three companies retracted their policies. The CEO of Yahoo, Marissa Mayer, went as far as to outright ban telecommuting.[32]

Less controversial business benefits of telecommuting include reductions in overhead costs and increases in the available labour pool. Overhead costs are those costs not directly associated with the production of a good or service. "People who telework do not use office space and do not create overhead."[33] REI, a large retailer and manufacturer of outdoor goods, announced it was selling its recently built 8-acre corporate campus as it is normalizing telecommuting as a work model and no longer needs the campus.[34] The reduction in overhead also applies to part-time telecommuters as companies can still save space through hot-desking, the idea of multiple workers using the same station at different times.[35] Global Workplace-Analytics, a research and consulting service focusing on new methods of work, estimates a telecommuting employee saves an average of $10,000 USD per year in overhead costs.[36] Telecommuting provides significant overhead cost savings with some companies divesting completely of costly workspace.

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[32] Cooke, Richard. "The Wages of Remote…," 40.

[33] Yehuda Baruch, "The Status of Research on Teleworking and an Agenda for Future Research," *International Journal of Management Reviews : IJMR* 3, no. 2 (2001): 118.

[34] Joey Hadden, Lara Casado, Tyler Sonnemaker and Taylor Borden, "17 Major Companies That Have Announced …,"

[35] Yehuda Baruch, "The Status of Research on Teleworking…," 118.

[36] Global Workplace Analytics, "Costs and Benefits," accessed on 5 February 2021. https://globalworkplaceanalytics.com/resources/costs-benefits

Telecommuting increases the size of the labour pool companies can draw on for recruiting. A study concluded that workers are willing to have 5% longer commute times when telecommuting is an option, which increases the more an employee can telecommute.[37] This implies that partial telecommuting increases the geographical area from which companies can recruit employees. Full-time telecommuters could conceivably be recruited from anywhere in the world, providing access to the world's labour pool. Telecommuting also removes physical barriers for workers with special needs, who have difficulty leaving the home, further increasing the size of the labour pool.[38] Telecommuting allows businesses to recruit from a larger pool of talent as telecommuters are willing to live further away from work and removes barriers for those with special needs.

Drawbacks of Telecommuting

Employers and employees are realizing numerous drawbacks as they adapt to the new workforce business model of telecommuting. Not all employees are benefiting from the promised work-life balance and reduction in stress. There are negative social implications for the worker and their peers. Employers are struggling to manage employees remotely and inculcate corporate culture. The telecommuting utopia is being blemished as the adolescent practice struggles with growing pains.

Telecommuting is failing to provide some workers with work-life balance, a hallmark benefit of the practice, and instead workers are working more. A study estimated that telecommuters work on average six more hours per week, and received

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[37] Duco de Vos, Evert Meijers, and van Ham Maarten, "Working from Home and the Willingness to Accept a Longer Commute," *The Annals of Regional Science* 61, no. 2 (09, 2018): 393. doi:http://dx.doi.org.cfc.idm.oclc.org/10.1007/s00168-018-0873-6.

[38] Sheldon Zedeck and Kathleen L. Mosier, "Work in the Family…,' 247.

less than half of the financial benefits from working overtime.[39] Being physically at work likely provides a better signal of an employee's devotion resulting in higher compensation. Conversely, telecommuters need to work more overtime to signal the same level of devotion.[40] The merging of the work and family domain may also account for the extra hours worked. Without a clear delineation between the two domains, workers may spend more time in one domain to compensate for unhappiness in another.[41] Jeff Hill a telecommuting employee at IBM aptly described the merging of the two domains in a LA Times article,

> Most telecommuters say the ability to work from home helps them balance their work and family obligations. But for those inclined to work long hours, telecommuting can be quite a burden because it blurs the boundaries between work and rest… Giving a workaholic a Thinkpad is like giving an alcoholic a bottle of gin.[42]

In theory the hours saved from the daily commute should allow more time for life, improving work-life balance, however in practice, some telecommuters are working longer hours, diluting the benefit.

Removing the worker from the workplace may have negative social implications which will increase stress. Scholars suspect that working from home will increase family conflict as the family domain and work domain overlap. There will be competing pressure from the two domains for time, with work stresses spilling over into home life.[43] While telecommuting saves an employee the commute time, many use that time as a

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[39] Jennifer L. Glass and Mary C. Noonan, "Telecommuting and Earnings Trajectories among American Women and Men 1989–2008," *Social Forces* 95, no. 1 (2016): 231.

[40] Jennifer L. Glass and Mary C. Noonan, "Telecommuting and Earnings Trajectories…," 238.

[41] Peter Standen, Kevin Daniels, and David Lamond, "The Home as a Workplace: Work-Family Interaction and Psychological Well-being in Telework." *Journal of Occupational Health Psychology* 4, no. 4 (1999): 375.

[42] Karen Kaplan, "For Workers, Telecommuting Hits Home: Home Edition," *The Los Angeles Times,* 1996.

[43] Peter Standen, Kevin Daniels, and David Lamond. "The Home as a Workplace…," 373.

buffer or cooling off period to separate the two domains.[44] The work domain provides a

social setting, a connection to other professionals. If only part of the workforce

telecommutes then those workers may feel alienated and deprived of the social

interaction.[45] The ability for some workers to telecommute may create friction and

jealously, *tele-resentment*, from co-workers who cannot use the benefit.[46] Telecommuters

may feel additional stress as they will likely receive less social support from their

supervisors,[47] and may experience a reduction in task significance, the perceived value of

one's work, due to their isolation from the workplace.[48] Telecommuting has the potential

to induce stress through a merging of work and home domains, through friction with co-

workers and alienation from the social aspects of the workplace.

Removing the worker from the workplace poses many new challenges for

management. Workers absorb the business culture through social cues, and institutional

norms and codes of conduct, when immersed in the workplace.[49] The lack of these

symbolic, nonverbal and personalized cues from everyday encounters affects the

inculcation of new employees.[50] The reduction in socialization of workers due to

telecommuting can have a negative impact on communication, coordination and

teamwork.[51] The inability to use subtle nonverbal messages will require managers to

adapt their communication skills when providing feedback on performance or delegating

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[44] Boas Shimar and Ilan Salomon. "Work-at-Home and the Quality…," 459.

[45] Andrew J. Dubrin, "Comparison of the Job Satisfaction...," 1223.
[46] Lisa Roberts, "Tele-Resentment," *Home Office Computing* 19, no. 4 (2001): 69.
[47] Sumita Raghuram and Batia Wiesenfeld, "Work-Nonwork Conflict and Job …," 260.
[48] Boas Shimar and Ilan Salomon. "Work-at-Home and the Quality…," 458.
[49] *Ibid*., 458.
[50] Ravi S. Gajendran and David A. Harrison. "The Good, the Bad, and the Unknown…," 1527.
[51] Julianne Mahler, "The Telework Divide: Managerial and Personnel Challenges of Telework," Review of Public Personnel Administration 32, no. 4 (December 2012): 414. https://doi.org/10.1177/0734371X12458127.

tasks.[52] Managers are further challenged with maintaining equity and morale in the workplace since employees may become dissatisfied from the perception of a two-tiered workforce between telecommuters and non-telecommuters.[53] Telecommunication will require managerial practices and skills to evolve as the medium to communicate with employees removes non-verbal cues, affects the inculcation of new employees, teamwork and morale.

Telecommuting is an evolution of the workplace with numerous benefits and drawbacks for employees and employers. Often benefits are also the drawbacks depending the employee or employers ability to adapt to the new workplace arrangement.

> … research reinforces the view telework is not simply a new way of assigning work. It creates a new organizational form with different ways of defining tasks, more complex integration problems, and different management responsibilities.[54]

Until the workplace and workers adapt, telecommuting will have numerous drawbacks to go along with its benefits.

Department of National Defence and Telecommuting

The Department of National Defence (DND) is split on its view of telecommuting. Prior to 2019, DND had an Alternative Workplace Arrangement (AWA) program which allowed, with management's concurrence, a variety of flexible work arrangements for civilian employees. In September of 2019, the Labour Code of Canada was amended to allow and protect workers who submit a request in writing for a flexible work arrangement, which includes telecommuting.[55] In response, the DND implementing

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[52] Andrew J. Dubrin, "Comparison of the Job Satisfaction…," 1223.
[53] Julianne Mahler, "The Telework Divide…," 416.
[54] *Ibid.*, 416.
[55] Labour Code of Canada.

the Flexible Workplace Program to replaced the AWA and update the terminology to match the amended law.[56] In response to the COVID-19 Pandemic, the Civilian Flexible Workplace Program was instituted in mid-2020, allowing managers to alter the work schedule, number of hours worked and work location of civilian employees.[57]

In contrast to the benefits enjoyed by the civilian employees, there is no policy specifically covering telecommuting or any other flexible workplace arrangements for military personnel. Under the Queens Regulations & Orders military members must obey lawful orders[58] permitting the chain of command to dictate when and where military members must work. This authority was exemplified during Operation *Laser,* which directed non-critical military members to stay at home to preserve the force.[59] The DND's view on telecommuting is split as it promotes the adoption of telecommuting for civilian employees but provides no such policy for military members.

Summary

NASA Engineer, Jack Niles, developed the idea of telecommuting in response to a complaint about Los Angles traffic. While the original telecommuting experiment in the suburbs of Los Angeles did not take, it began a revolution of the workplace. Telecommuting would gain popularity in the 80's with large companies such as J.C. Penny, IBM, Johnson and Johnson, and American Express, and again in the 2000's with

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[56] Government of Canada, Department of National Defence, "Relaunch of the Flexible Workplace Program – Things you need to know," last updated 7 October 2019, https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2019/10/relaunch-of-the-flexible-workplace-program-things-you-need-to-know.html

[57] Department of National Defence, "Things you need to know about the new Civilian Flexible Work Program and mandatory agreement form," last updated 31 July 2020, https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2020/07/things-need-know-about-civilian-flexible-work-program.html

[58] QR&O, Volume 1, 19.05.

[59] Department of National Defence, "Military Response to COVID-19," accessed on 4 April 2021. https://www.canada.ca/en/department-national-defence/campaigns/covid-19-military-response.html#1

Yahoo, IBM and Best Buy. The purported benefits, however, never materialized and it was not until the COVID-19 Pandemic thrusts telecommuting, as a means of preventing the disease's spread, upon the world did the benefits finally materialize. Ralph Westfall predicted the rise of telecommuting as he theorized it would require a worldwide excuse, which COVID-19 provided, to legitimize the work arrangement in the eyes of employers and employees.

Telecommuting provides flexibility for workers to achieve work-life balance. In providing this flexibility workers can also benefit from feelings of autonomy leading to job satisfaction and reductions in stress due to reduced conflicts between family and work. Employers gain from a larger geographical pool to draw from when hiring employees and a reduction in overhead required for the maintenance of costly office space. The most coveted benefit is the increase in productivity by telecommuters, with studies showing increases of up to 30% for employees who telecommute. Studies and real life, however, do not agree on this point as the gains never materialized for Yahoo, IBM and Best Buy, leading Yahoo to outright ban the practice of telecommuting.

The work-life balance promised for telecommuters may not be achieved in practice as telecommuters are likely to work six more hours per week and receive less than half of the benefits from overtime. Working from home causes the work and home domains to overlap, increasing stress and the number of hours worked. Giving a workaholic a laptop for home use has been equated to the equivalent of giving an alcoholic a bottle of gin. Employers also struggle to adapt to the workplace arrangement as they need new methods of supervising employees and inculcating the corporate culture that would otherwise occur at the office.

Telecommuting is likely here to stay as the request to telecommute is protected under flexible work arrangements, an amendment to the Canadian Labour Code. The DND has implemented its own policy, the Flexible Workplace Program, to promote telecommuting and work-life balance for its civilian employees. The department's position on telecommuting, however, is split as no such policy exists for members wearing uniforms. After 50 years, Jack Nilles' belief that telecommuting would revolutionize the workplace has finally come true.

CHAPTER 2 – RECRUITING

The CAF will shrink if it cannot recruit a sufficient quantity and quality of recruits to offset annual attrition. There is a finite amount of talent residing in Canadian society and the CAF is in competition to recruit that talent. Recruiting for the CAF is more challenging than in other fields as military life presents unique barriers for some segments of the population. This is problematic for the CAF as it struggles to achieve its diversity targets and attract a sufficient number of recruits.

Recruiting Challenges regarding three segments of the population are examined based on the CAF's recruitment history and the unknown. Generation Z is the latest generation and has just begun to enter the workforce. As such, the CAF's success at recruiting them is yet unknown. What is known is that the rigid nature of life in the CAF and the technical sophistication of the hardware they use may be incompatible with Generation Z as they favour flexibility and using the latest technology. Over the last decade, the CAF has been unable to attain their 11.8% target representation of visible minorities in the force.[60] Studies indicate beliefs within the community and geography are affecting their decision to join the military. The CAF has also fallen short of achieving its target of 25.1% participation rate of women in the force.[61] Research on workplace preferences suggests many women, like Generation Z, prefer flexibility, but they prefer it to balance their responsibilities at home and at work. The CAF could improve its recruiting of these segments by understanding their preferences, their barriers

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[60] Chantal Fraser, "Diversity Recruiting: It's Time to Tip the Balance," *Canadian Military Journal* vol. 13, no. 4, (autumn 2013), 27. http://www.journal.forces.gc.ca/vol13/no4/page25-eng.asp

[61] Department of National Defence, "Department of National Defence and the Canadian Armed Forces 2020-21 Departmental Plan," ISSN 2371-7327, (Ottawa: Canada Communications Group, 2020): 37.

to recruitment, and through evolving the workplace to better suit them. Failure to do so risks losing potential recruits to more agile and accommodating employers.

Generation Z

The newest entrants to the Canadian workforce is Generation Z, also known as post millennials, who were born after 1996. With the oldest of Generation Z reaching the age of 24 in 2021, the business community is beginning to learn about the newest generation's work preferences. The issue for the CAF, and many businesses, is determining how Generation Z is different, and how to incorporate their work preferences into their organizations in order to recruit the top talent. Generation Z is currently experiencing disproportionately high levels of unemployment due to the COVID-19 Pandemic, 10.5% higher than pre-pandemic numbers.[62] With high unemployment, the CAF has an opportunity to entice Generation Z into a uniform.

A main defining feature of Generation Z is technology. The generation is sometimes referred to as Digital Natives as they are the "first generation to be born using the internet and social media simultaneously … they prefer to absorb information at lightning speed, favoring visual media … and social media platforms."[63] Generation Z is already comfortable with telecommuting technologies and is "communicating in a 'real' way with individuals who do not occupy the same physical space."[64] In fact, the majority of Generation Z, at 57%, prefer not to communicate in person at all.[65] Dimensional

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[62] Jolson Lim, Canadian youth may suffer the economic toll of COVID for years to come," *iPolitics*, 8 January 2021, https://ipolitics.ca/2021/01/08/canadian-youth-may-suffer-the-economic-toll-of-covid-for-years-to-come/

[63] Heather Turner, "Welcoming Generation Z to the Workplace," *BenefitsPRO* (Oct 21, 2019). https://search-proquest-com.cfc.idm.oclc.org/trade-journals/welcoming-generation-z-workplace/docview/2307229537/se-2?accountid=9867.

[64] A. Cross-Bystrum, "What you need to know about Generation Z," *iMedia Connection*, 20 August 2010, quoted in Terry Wiedmar, "Generations do Differ: …," 55.

[65] Dell Technologies, "Gen Z: Thee future has arrived …,"

Research conducted a study of 12,000 Generation Z high school and college students

noting some significant workplace expectations:

- 91% say the technology offered by an employer would be a factor in choosing among similar job offers.
- 80% believe technology and automation will create a more equitable work environment
- 98% have used technology as part of their formal education
- 80% want to work with cutting-edge technology in their future careers [66]

Generation Z has grown up in the digital era and expects technology to form an important

part of their careers and the workplace.

A second defining feature of Generation Z is the expectation of flexibility in the

work environment. A study of workplace values did not find any significant differences

amongst Generation X through Generation Z, but did note that, "employees, regardless of

their generation, value flexibility in the workplace."[67] A multi-generational retention

study of the nursing profession in Canada noted that employees will leave for a more

flexible work environment and "general retention strategies that focus on improving the

work climate will apply to all generations of hospital workers."[68] An article on the

challenges of managing a multi-generational workforce noted that Generation Y and Z

are both technically savvy, and that Generation Y seeks modest flexibility at work to

improve work-life balance, while Generation Z "expect[s] to be able to work, learn, and

study wherever and whenever they choose."[69] The defining workplace preferences of

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[66] Dell Technologies, "Gen Z: Thee future has arrived, Executive Summary," accessed 3 February 2021. https://www.delltechnologies.com/en-us/collaterals/unauth/sales-documents/solutions/gen-z-the-future-has-arrived-executive-summary.pdfhttps://www.top-employers.com/en/how-we-certify/

[67] Shanna D. Dick, "Generational Similarities in Work Values of Generations X, Y and Z." *Journal of Human Resource Management* XXII, no. 2 (2019): 19, 20.

[68] Melanie Lavoie-Tremblay *et al*., "Retaining Nurses and Other Hospital Workers: An Intergenerational Perspective of the Work Climate," *Journal of Nursing Scholarship* 42, no. 4 (12, 2010): 420.

[69] Terry Wiedmer, "Generations do Differ: Best Practices in Leading Traditionalists, Boomers, and Generations X, Y, and Z," *Delta Kappa Gamma Bulletin* 82, no. 1 (Fall, 2015): 57.

Generation Z are technology and flexibility, and employers will need to provide these in order to attract the top talent.

The current CAF work environment is likely incompatible with Generation Z's workplace preferences as the CAF is slow to adapt and incorporate new technologies. A review of the CAF Supply Administration Manual[70] notes the need for manual count sheets and a lack of any reference to modern day technology used in logistics such as barcode scanners or Radio Frequency Identification (RFID) tags. Barcode scanners, used at the grocery store checkout, have been commercially available since the 1970's.[71] RFID tags provide a similar but more sophisticated function in logistics and have been in use since the early 2000's.[72] Foregoing the procurement of logistical technology for warfighting technology sounds logical for a military with limited resources, however the CAF is even slow to adopt modern warfighting technologies. The CAF, as of 2021, does not have a sophisticated long range UAV, which have been used in combat roles since 2001. This delay has been attributed to budget constraints, government intervention and procurement delays.[73] Potential recruits are unlikely to see any leading edge technology any time soon as the Canadian military procurement system is arguably one of the worst in the Western world, leading to long delays and failed projects.[74] Generation Z expects

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[70] Department of National Defence, A-LM-007-100/AG-001, *Supply Administration Manual*, 23 November 2015.

[71] Barcodes, "When Were Barcoded Invented," accessed on 29 April 2021.

[72] David Chadwick, "RFID and its Effect on Supply Chain Management," *Fronetics,* accessed 29 April 2021, https://www.fronetics.com/rfid-and-its-effect-on-supply-chain-management/

[73] Gary Schaub, "JUSTAS for all? Innovation and UAVs in the Canadian Forces," *Defence Studies* 15, no. 2 (2015): 132-135.

[74] Richard Shimooka, "Canada has the Worst Military Procurement System in the Western World," *The Hill Times*, 21 January 2019, https://www.macdonaldlaurier.ca/canada-worst-military-procurement-system-shimooka-the-hill-times/

to work with the latest technology and will likely be disappointed with the CAF's lackluster adaptation of new tech.

Militaries are not known for being flexible and the CAF is no different, requiring personnel to move every few years, follow orders and go to war. In the CAF, the simple act of ignoring your superior's direction, disobeying a lawful order, could conceivably lead to a life sentence in jail.[75] The rigid persona of the CAF carries over to their work environment, where bosses can dictate your work hours and there is no formal policy on telecommuting and flexible workplace arrangements, as previously discussed. The Canadian public's perception of soldiers is very rigid and this is having a negative effect on current recruitment.[76] Generation Z, who expects flexibility in the workplace, is unlikely to choose a career in the CAF as it is neither perceived, nor is it, a flexible organization.

Generation Z is likely to view the CAF as a bunch of rigid luddites which will make it difficult to compete for top talent. Many businesses already cater to the younger generation by promoting work-life balance through flex-time and remote work.[77] Companies who rate employers, emphasize the work environment, the health and well-being of employees and often cite flexible workplace arrangements as criterion to be a top employer.[78] The Top 100 Employers for 2021 were not limited to white collar work

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[75] National Defence Act, R.S.C., c.N-5, (1985), 83.

[76] Paxton Mayer, "What's in a Soldier? How to Rebrand the Canadian Armed Forces," *Canadian Global Affairs Institute*, October 2020, https://www.cgai.ca/whats_in_a_soldier_how_to_rebrand_the_canadian_armed_forces#_ftn10

[77] Steve West, "Meeting Millennial Expectations In These Four Areas of Technology," *Forbes*, 28 June 2018. https://www.forbes.com/sites/forbestechcouncil/2018/06/28/meeting-millennial-expectations-in-these-four-areas-of-technology/?sh=33a6d9394ffc

[78] Media Corp Canada, "Canada's Top 100 Employers (2021)," accessed 3 February 2021. https://www.canadastop100.com/national/; Top Employer Institute, "How We Certify," accessed on 3 February 2021. https://www.top-employers.com/en/how-we-certify/

but included a variety of industries from Ford Motor Company in manufacturing, Best Buy in retail and Health Canada in the public service,[79] industries which will compete with the CAF for the same talent. The newer generation expects technology in the workplace and having the "latest technology is becoming critical to attracting and retaining top talent."[80] To attract Generation Z, the CAF could use telecommuting and modern remote work software to rebrand itself as a flexible, technologically savvy workplace, an employer of choice for top talent. This will cater to the generation's preference to avoid communicating in person, flexibility and the use of technology.

Diversity

The skills and knowledge inherent in a diverse workforce are valuable to the CAF because different perspectives and experiences bring credibility to the organization and new capabilities on operations. Canada's Defence paper, Strong Secure, Engaged (SSE) notes the importance of leveraging Canada's diversity within the DND.

> Embracing diversity will enhance military operational effectiveness by drawing on all of the strengths of Canada's population. Building a Defence team composed of people with new perspectives and a broader range of cultural, linguistic, gender, age, and other unique attributes will contribute directly to efforts to develop a deeper understanding of our increasingly complex world, and to respond effectively to the challenges it presents.[81]

The CAF is currently involved in over two dozen operations ranging from Central and South America through Europe, Africa and the Middle East.[82] The language skills and cultural knowledge of diverse Canadians can assist the CAF in understanding the cultural

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[79] Media Corp Canada, "Canada's Top 100 …"

[80] Steve West, "Meeting Millennial Expectations …"

[81] Department of National Defence, ISBN 978-0-660-08443-5, *Strong, Secured, Engaged: Canada's Defence Policy*, (Ottawa: Canada Communications Group, 2017), 23.

[82] Department of National Defence, "Current Operations List," accessed 17 February 2021. https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/list.html

nuances in these environments where it operates. These skillsets are highly valuable for collecting Human Intelligence from the local population, analyzing information, and planning operations in a culturally complex environment. A 2019 Report to Parliament recognized the importance of linguistic skills on operations and recommended the CAF maintain a database of members with unique language abilities.[83] The US Army, in turn, sends their Human Intelligence Collectors to the Defense Language Institute to develop these sought after language skills.[84]A diverse workforce provides the CAF with the linguistic skills and cultural knowledge to enhance operations in culturally complex environments.

Diversity is not only a force multiplier on operations but a requirement for the CAF. In reference to Canada's Employment Equity plan, Rear-Admiral Smith stated,

> … to remain credible in a democratic society, both DND and CF must enjoy the support and the confidence of the Canadian public. A major factor of that support involves how representative it is of the population. Thus, its composition must reflect the gender and ethno-cultural composition of Canadian society.[85]

SSE echoes this sentiment but in simpler terms states, "We need a military that looks like Canada."[86] While the pursuit of diversity is important to the credibility of the CAF, it is also legally required under the Employment Equity Act. Section 5b states that institutions must have positive policies and procedures to ensure that persons in designated groups achieve a degree of representation as is reflective of the Canadian workforce.[87] To

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[83] House of Commons, "Improving Diversity and Inclusion in the Canadian Armed Forces," Report on the Standing Committee on National Defence, 42nd parliament, 1st session, June 2019, 59.

[84] Army Recruiting Website, "Human Intelligence Collector Recruit," accessed on 5 April 2021. https://www.goarmy.com/careers-and-jobs/career-match/signal-intelligence/languages-code/35w-human-intelligence-collector-recruit.html

[85] MILPERSCOM (MPC)/Chief Military Personnel (CMP) Employment Equity (EE) Plan – August 2011 to August 2014, dated 16 August 2011, p. 2; as cited in Chantal Fraser, "Diversity Recruiting: It's Time to Tip the Balance," *Canadian Military Journal,* vol. 13, no. 4 (Autumn 2013): 26.

[86] Department of National Defence, ISBN 978-0-660-08443-5, *Strong, Secured, Engaged …*, 20.

[87] The Employment Equity Act. http://laws-lois.justice.gc.ca/eng/acts/E-5.401/page-1.html#h-2

achieve this proportional diversity the CAF has implemented an Employment Equity Plan with diversity targets. A diverse CAF provides operational benefits, credibility with the public, and is required by law.

Visible Minorities

The demographics in Canada are changing and the CAF is struggling to achieve a diverse workforce. According to the 2016 Census, 22.3% of the Canadian population identifies as a visible minority. This number is expected to increase to 31-36% by 2036 as Canada is experiencing the highest levels of immigration since confederation with 21.9% of the population having been either a landed immigrant or permanent resident of Canada. Furthermore, 61.8% of immigration is from Asia including the middle east, and 13.4% from Africa, which is the next highest.[88] This suggests that the majority of immigrants are also likely to be visible minorities based on their continent of origin. Contrary to the changing demographics in Canada, only 5% of regular force members and 10% of reservists were immigrants and or visible minorities based on 2006 census data.[89] In 2013, visible minorities accounted for 4.4% and 6.6% of Regular and Reserve forces respectively, less than half of the 11.8% total force target.[90] The CAF has made some progress in recruiting visible minorities with the total force increasing to 7.4% in 2017 and 9.2% in 2020.[91] The CAF is slowly inching towards its visible minority representation target of 11.8%, which is still only half of the visible minority population.

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[88] Statistics Canada, "2016 Census, Immigration and ethnocultural diversity: Key results from the 2016 Census," Statistics Canada catalogue no. 11-001-X, (Ottawa: Statistics Canada)

[89] Jungwee Park, "A profile of the Canadian Forces," *Perspectives*, Statistics Canada Catalogue no. 75-001-X (Ottawa: Statistics Canada), 18. https://www150.statcan.gc.ca/n1/en/pub/75-001-x/2008107/pdf/10657-eng.pdf?st=xmB4qkGJ

[90] Chantal Fraser, "Diversity Recruiting: It's Time to Tip the Balance," *Canadian Military Journal* vol. 13, no. 4, (autumn 2013), 27. http://www.journal.forces.gc.ca/vol13/no4/page25-eng.asp

[91] Lee Berthiaume, "Military must nearly double annual female recruitment to reach target: study," *CTV News*, 22 January 2020. https://www.ctvnews.ca/canada/military-must-nearly-double-annual-female-

There are many factors which may explain the under-representation of visible minorities in the CAF. The CAF traditionally recruits young, white males, with a military family history, from rural areas or urban areas with populations of less than 100,000.[92] In contrast, recent immigrants who are likely visible minorities live in large metropolitan areas[93] and are unlikely to have a family connection to the CAF. Many immigrants from Asia highly value education and view it as a means of social mobility.[94] Since the average recruit in the CAF is between 17 and 24 with a high school education, it is likely that many recent immigrant families view soldiering as a low status profession.[95] This hypothesis was supported through a 2011 Ipso Reid study which found that 51% the Chinese-Canadian community thought of a career in the CAF as a means of last resort.[96] A follow on study of Asian and Arab-Canadian youth noted similar apprehensions as parents and the community were unwilling to recommend the profession of arms to the younger generation.[97] The lack of a CAF connection and community support for a career in the CAF are significant barriers to recruiting a diverse workforce.

The predominantly rural geographic distribution of CAF bases are another barrier to recruiting a diverse workforce. Recent immigrants in Canada who are likely also visible minorities choose to live in ethnic neighborhoods in Toronto, Montreal and

recruitment-to-reach-target-study
1.4778063#:~:text=OTTAWA%20%2D%2D%20The%20Canadian%20Armed,the%20Department%20of
%20National%20Defence.

[92] Hans Jung, "Can the Canadian Forces Reflect Canadian Society?" *Canadian Forces Journal, vol 8, no 3* (autumn 2007) 28. http://www.journal.forces.gc.ca/vo8/no3/doc/jung-eng.pdf

[93] Statistics Canada, "2016 Census, Immigration and ethnocultural diversity: Key results …," Table 1. https://www150.statcan.gc.ca/n1/daily-quotidien/171025/t001b-eng.htm

[94] Hans Jung, "Can the Canadian Forces …" 31.

[95] Hans Jung, "Can the Canadian Forces …" 28, 30.

[96] Ipsos Reid Corporation, Visible Minorities Recruitment and the Canadian Forces: The Chinese-Canadian Population Final Report, 2011. p. 47; as cited in Chantal Fraser, "Diversity Recruiting …," 27.

[97] Ipsos Reid Corporation, Visible Minorities Recruitment and the Canadian Forces: The Asian and Arab Canadian Population Final Report, 2012. p. 12-13; as cited in "Chantal Fraser, "Diversity Recruiting …," 28.

Vancouver, and while there is a recent trend to move away from city centers towards

suburbia, they continue to concentrate in pockets.[98] Sandeep Agrawal, a specialist in

ethnic enclaves at Ryerson University, explained in a National Post Article why ethnic

concentration in Canada's cities is growing, "People find their footing in these [ethnic]

neighbourhoods … they pull comfort from these areas, especially women and elderly

people."[99] The concentration of visible minorities in Canada is likely to continue as

Canada's policies promote the preservation of cultural heritage in diverse communities.[100]

The largest concentrations of visible minorities is expected to remain in the ethnic

communities located in major metropolitan areas and away from rural CAF bases for the

foreseeable future.

The desire of visible minorities to remain part of an enclave is problematic as the

CAF does not have a significant regular force presence in Toronto, Montreal or

Vancouver.[101] Even if a member was fortunate enough to be posted to the same

geographical area as their hometown, the military requires members to move to different

bases throughout their career.[102] Not all immigrants and visible minorities reside in

Toronto, Montreal or Vancouver, however, the vast majority are in cities with

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[98] Mireille Vezina and Rene Houle, "Settlement patterns and social integration of the population with an immigrant background in the Montreal, Toronto and Vancouver metropolitan areas," Statistics Canada, ISBN 978-660-06380-5 (Ottawa: Statistics Canada): 5. https://www150.statcan.gc.ca/n1/en/pub/89-657-x/89-657-x2016002-eng.pdf?st=JjsmPUO0

[99] Tristin Hopper, "Canada: As immigration booms, ethnic enclaves swell and segregate," *National Post*, 11 February 2012. https://nationalpost.com/news/canada/canada-as-immigration-booms-ethnic-enclaves-swell-and-segregate

[100] Feng Hou and Garnett Picot, "Visible minority neighbourhood enclaves and labour market outcomes of immigrants," Statistics Canada, ISBN: 0-662-34512-6, (Ottawa: Statistics Canada): 1. https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2003204-eng.pdf

[101] Government of Canada, "Canadian Armed Forces bases and support units," last updated 18 September 2020. https://www.canada.ca/en/department-national-defence/services/bases-support-units.html

[102] National Defence, "Moving and relocation," last updated 13 November 2018. https://www.canada.ca/en/department-national-defence/services/caf-jobs/life/moving-relocation.html

populations over 100,000.[103] This preference for metropolitan areas is also problematic as

approximately half of the bases, air wings and headquarters in the CAF are located in

smaller cities and towns with populations less than 100,000.[104] The CAF should not be

surprised that visible minorities who reside in urban, cultural enclaves may not be happy

with the prospects of being posted to Happy Valley-Goose Bay, an isolated community

with a population 8,109.[105] Geography, family and cultural views of the military are

likely barriers to the recruitment of visible minorities in the CAF.

Through the adaptation of telecommuting, the CAF can begin to break down

barriers to the recruitment of visible minorities. "Research has consistently shown that the

best way to attract minority groups to an organization is to have people they can identify

with who are already serving in that organization do the outreach."[106] Telecommuting

would allow CAF members to work remotely from major urban areas where diversity

lives, instead of bases located in rural areas. The daily interaction with neighbors and the

community by a person in uniform would provide a role model and, the all-important,

connection to the CAF. As respectable CAF members become integrated into ethnic

communities, the social status of the profession would likely improve, reversing the

negative stereotypes of military service held by many immigrants. This theory is

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[103] Statistics Canada, "Ethnocultural diversity within census metropolitan areas (CMAs)," Statistics Canada Catalogue no. 91-551-x (Ottawa: Statistics Canada). https://www150.statcan.gc.ca/n1/pub/91-551-x/2010001/ana-eng.htm

[104] Statistics Canada, "*Focus on Geography Series, 2016 Census*," Statistics Canada Catalogue no. 98-404-X2016001 (Ottawa: Statistics Canada); compared to the location of bases and air-wings found at Government of Canada, "Canadian Armed Forces bases …"

[105] Statistics Canada, "*Happy Valley-Goose Bay [Population centre], Newfoundland and Labrador and Newfoundland and Labrador [Province]* (table)," *Census Profile*, 2016 Census, Statistics Canada Catalogue no. 98-316-X2016001 (Ottawa: Statistics Canada). https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E

[106] Phyllis P. Browne, "Visible Minorities and Canadian Forces Recruitment: Goals and Challenges," DGMPRA TM 2011-021, Defence R&D Canada, September 2011, 19.

supported by a 2012 Ipsos Reid study on Asian and Arab-Canadian youth that proposed

the lack of interest in the military was due to a lack of role models within ethnic

communities.[107] Telecommuting can break down barriers by providing CAF role models

in diverse communities, and allowing members to have a career in the forces while

maintaining the comfort of living in an ethnic neighborhood. Adapting the workplace to

suit the needs of visible minorities will likely improve the CAF's standing as an employer

of choice to attract top talent.

Women

The CAF is struggling to recruit and retain women in uniform. Women account

for 50.9% of the total Canadian population[108] and 47% of the Canadian workforce, a

large increase from the 20% recorded in 1953.[109] While female participation in the

workforce is nearing parity with men, the CAF has failed to provide a compelling case

for women to don a uniform. The CAF has set a target participation rate of 25.1% by

2026, less than half of the female representation in the population. From 2017 through to

2019, the CAF has only increased its female representation from 15.2% to 15.7%, despite

placing an emphasis on recruiting women.[110]

The CAF needs different gender perspectives as they provide new capabilities to

increase the effectiveness of military operations. Talented women in uniform have been

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[107] Ipsos Reid Corporation, Visible Minorities Recruitment and the Canadian Forces: The Asian and Arab Canadian Population Final Report, 2012. p. 10.

[108] Canada, Statistics Canada, " Age and sex, and type of dwelling data: Key results from the 2016 Census," 3 May 2017. https://www150.statcan.gc.ca/n1/daily-quotidien/170503/dq170503a-eng.htm?indid=14423-5&indgeo=0

[109] Statistics Canada, "The surge of women in the workforce," accessed 19 February 2021. https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015009-eng.htm#def1

[110] Department of National Defence, "Department of National Defence and the Canadian Armed Forces 2020-21 Departmental Plan," ISSN 2371-7327, (Ottawa: Canada Communications Group, 2020): 37.

sought after for non-conventional warfare as they are better suited to interact with the

local female population, especially in societies were women are prohibited to speak with

men. [111] In Iraq and Afghanistan, women soldiers have been employed to "improve the

situational awareness and intelligence gathering…" through Female Engagement Teams,

Cultural Support Teams and Gender Field Advisors.[112] If the CAF cannot determine how

to appeal to women, it will fall short of achieving its target and forego a valuable

operational capability.

Telecommuting may prove more beneficial to women than men. A common

hypothesis is that child rearing and the home is the domain of women, and therefore

telecommuting will disproportionately benefit women as they will have greater flexibility

to manage their work/home responsibilities. In a meta-analysis of 46 studies on

telecommuting, Gajendran and Harrison note that women "experienced greater benefits in

the form of improved performance (supervisor or objective ratings) and improved, rather

than worsened, perceived career prospects." They theorize that when women

telecommute they benefit more than men from control over the family domain.[113]

Preference Theory, a theory which predicts women's choices between work and family,

states that "Women gravitate towards jobs that are local, can be done part-time or for

short periods, and to jobs with fixed hours of work that can be fitted around family

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[111] Robert Egnell, "Gender Perspectives and Military Effectiveness: Implementing UNSCR 1325 and the National Action Plan on Women, Peace, and Security," *Prism : A Journal of the Center for Complex Operations* 6, no. 1 (03, 2016): 77-78. https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/gender-perspectives-military-effectiveness/docview/1787050282/se-2?accountid=9867.

[112] *Ibid.*, 74.

[113] Ravi S. Gajendran and David A. Harrison. "The Good, the Bad, and the Unknown about Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences." *Journal of Applied Psychology* 92, no. 6 (2007): 1536.

life."[114] A study by Mas and Pallais quantified women's desire for a flexible workplace estimating that they are willing to take an 8% pay deduction on average for the option to telecommute.[115] There is strong evidence suggesting women want a flexible work environment that compliments their responsibilities at home.

Women are perceived to benefit the most from the flexibility of telecommuting but some may experience greater negative affects then men. Some experts suspect that working from home will cause family conflict as the family domain and work domain overlap as previously noted in chapter 1.[116] This conflict is expected to be greater for women with families who traditionally are expected to manage the household. One recent study on dual telecommuting parents supports this argument. The study found that women had the lowest well-being and performance when they were in charge of looking after the children while working from home compared to men, indicating that men fared better at separating work and family domains.[117] The negative effects of domain overlap may explain why a study on flexible workplace arrangements noted that women preferred flex hours and a compressed workweek over telecommuting, thereby keeping the workplace and home separate.[118] However, the traditional household expectations for

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[114] Catherine Hakim, "Women, Careers, and Work-Life Preferences," *British Journal of Guidance & Counselling* 34, no. 3 (2006): 285.

[115] Alexandre Mas and Amanda Pallais, "Valuing Alternative Work Arrangements." *The American Economic Review* 107, no. 12 (12, 2017): 3727, doi:http://dx.doi.org.cfc.idm.oclc.org/10.1257/aer.20161500. https://search-proquest-com.cfc.idm.oclc.org/scholarly-journals/valuing-alternative-work-arrangements/docview/1968992734/se-2?accountid=9867.

[116] Peter Standen, Kevin Daniels, and David Lamond, "The Home as a Workplace: Work-Family Interaction and Psychological Well-being in Telework," *Journal of Occupational Health Psychology* 4, no. 4 (1999): 373.

[117] Kristen M. Shockley et al, "Work-Family Strategies during COVID-19: Examining Gender Dynamics among Dual-Earner Couples with Young Children," *Journal of Applied Psychology* 106, no. 1 (01, 2021): 21, doi:http://dx.doi.org.journal.rmc.ca/10.1037/apl0000857.

[118] Malissa A. Clark et al, "Organizational Support Factors and Work–Family Outcomes: Exploring Gender Differences," *Journal of Family Issues* 38, no. 11 (August 2017): 1538, https://doi.org/10.1177/0192513X15585809.

women are likely changing as women near parity in the workforce. As traditional roles evolve, it would be shortsighted to assume that women will continue to have difficulty separating work and family domains making this argument a moot point. Of note, the responsibilities at home are greatest for women with young children. As the children become older and more self-sufficient, the additional benefits and drawbacks from domain overlap would be expected to diminish. While many women express a desire to telecommute, some may find working from home challenging as their domestic responsibilities and work overlap.

As a segment represented under the Employment Equity Act, a provider of new military capabilities, and as a pool of potential recruits, the CAF needs to recruit more women. Currently the CAF is 10% shy of reaching its 25.1% target set for 2026 and there is no indication it will achieve that target without change. From a workplace perspective, research shows that women have a greater preference towards flexible work arrangements, due to their household responsibilities. As such, the rigid and demanding perception of the CAF work environment could be a barrier for women who want to join the CAF. Through the widespread adoption of telecommuting, the CAF can alter its rigid persona to one of flexibility and work-life balance. As the CAF fails to meet its diversity targets, innovative new solutions, involving telecommuting, will likely be required to attract women to the profession of arms.

Summary

The nature of the CAF can create barriers to entry for segments of the Canadian population, affecting its ability to maintain its fighting force. A diverse workforce is a force multiplier on non-conventional operations as language skills, cultural knowledge

and gender perspectives improves interactions with the local population, and provides valuable intelligence and analysis. In order to remain credible in a democracy, the military should be representative of the population. This is problematic as the demographics of the Canadian population are rapidly changing with the highest levels of immigration since confederation coming primarily from Asia and Africa. The CAF has set internal diversity targets of 11.8% for visible minorities and 25.1% for women and has been failing to meet both, suggesting it needs to evolve its workplace to better suit the needs of these segments.

Generation Z is has grown up in the digital era and want technology to form part of their work experience. Generation Z also desires flexibility in their workplace arrangements, beyond the preferences of previous generations, to the point of being able to work where and when they want. The CAF is slow to adopt technology and lacks a policy on telecommuting, likely barriers to recruiting Generation Z.

Immigrants, most of whom are visible minorities, want to live in ethnic enclaves in the major metropolitan areas of Canada. This is likely a barrier for service in the CAF as most bases are in rural areas. The rural nature also limits the interaction between potential CAF role models and ethnic youth. This is also likely a barrier since the best way to recruit minorities is to have serving members who they can identify with do outreach.

Women show a preference for flexible work arrangements, likely as it allows them to balance their responsibilities at work and at home. The rigid persona of the CAF may pose a barrier to women requiring flexibility to raise a family. Telecommuting can allow CAF members to remotely work from ethnic communities, it promotes a flexible,

technologically savvy persona, and it evolves the workplace to reduce barriers and attract

top talent.

CHAPTER 3 - RETENTION

The 2016, Fall Report of the Auditor General of Canada noted that higher than expected attrition was outpacing recruiting, resulting in a growing gap between the number of trained CAF members and those that are required to achieve its mandate.[119] Furthermore, 21 military trades were deemed stressed, meaning that they were below 90% effective strength.[120] This is notable as it highlights the difficulty the CAF is having at recruiting and retaining members as a whole, and for specific trades. Retention is particularly problematic for militaries as unique military trades, like Infantry Officer, cannot be hired off of the street, instead they must be trained internally. As the joke goes, "How long does it take to train a Chief with 20 years of experience? … 20 years." Due to the amount of experience required to generate senior personnel, it can take a military a decade to recover from unforecasted attrition. If the trend in attrition continues, the CAF will not have enough trained personnel to meet its mandate.

The Exit Survey and Ombudsman

The Exit Survey is a tool designed to assists the CAF in determining why members voluntarily leave the force. An analysis of the data collected from departing members between 2013 and 2017 noted several dissatisfiers. Significant internal reasons for leaving the CAF included geographical stability (32.0%), career progression (24.7%), postings (17.9%), and senior leadership (17.7%).[121] The most common external factor for leaving the CAF was family reasons (30.2%) with (4.9%) attributed to the family's

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[119] Auditor General of Canada, "Fall Report of the Auditor General of Canada, Report 5 – Canadian Armed Forces Recruitment and Retention – National Defence," (Ottawa: Canada Communication Group, 2016), 5.11.

[120] *Ibid.*, 5.51.

[121] Kelsea Beadman, Nicholas Bremner and Glen Budgell, "CAF Exit Survey – Descriptive Analyses of 2013-2017 Data," Defence Research and Development Canada, October 2017, 50.

preference.[122] These factors are not necessarily in isolation and many are likely related. Senior leadership decides where members are posted, which is required for career progression, leading to geographical instability, which affects the member's family. An analysis of the exit surveys noted, "[The] … dissatisfaction with postings pertains less to aspects such as the posting locations themselves or the notice given, but instead pertains to the impact of postings on personal and family life."[123] This is likely why 40% of respondents noted that posting were influential or very influential in their decision to leave the CAF.[124] The statistics from the exit surveys clearly indicate that geographic stability is important to CAF members, suggesting that telecommuting could be a crucial part of the CAF's retention strategy.

A geographical move on modern military families effects every aspect of their lives and is likely an underrated dissatisfier affecting retention. As the Ombudsman for the CAF noted, "The requirement for military families to pick up and move on a recurring basis has a highly disruptive influence on family life. In the view of many … it is the single most unsettling feature of the C[A]F lifestyle."[125] Figure 3.1 from the Ombudsman's Report depicts the causes, factors and effects, which impact the quality of life for CAF military families.

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[122] *Ibid.* 51.

[123] *Ibid*. 97.

[124] *Ibid*. 95.

[125] Department of National Defence, Canadian Armed Forces Ombudsman, "Special Report to the Minister of National Defence," November 2013, 4.
http://www.ombudsman.forces.gc.ca/assets/OMBUDSMAN_Internet/docs/en/mf-fm-eng.pdf
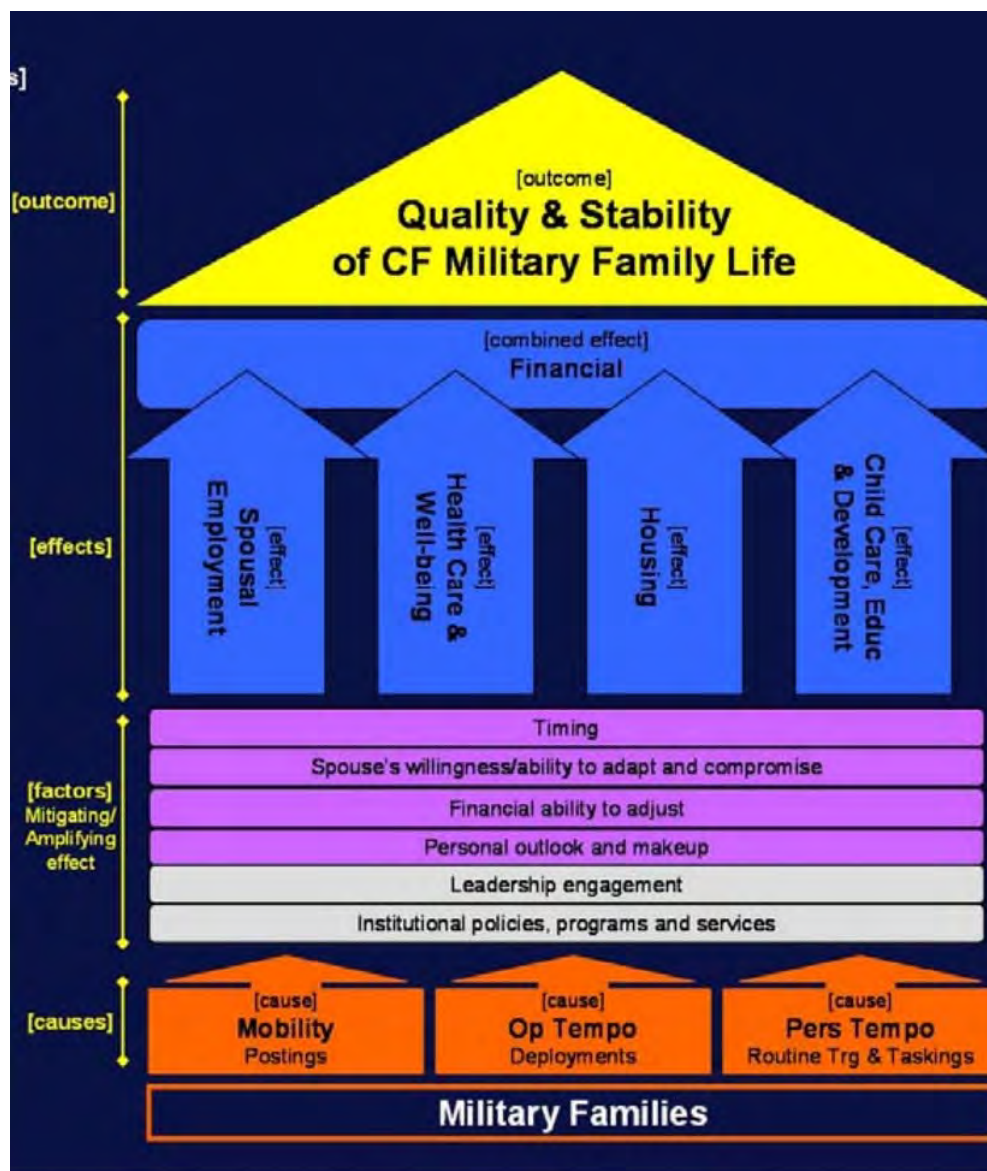
Figure 3.1 - A visual representation of the realities of modern CF military life.

Source: Canadian Armed Forces Ombudsman, "Special Report to the Minister of National Defence," November 2013, 73.

The base of the figure notes the three main aspects of military life that cause instability and lower the quality of life of CAF Family members. The causes will drive 4 effects, namely child care & education, housing, healthcare and well-being, and spousal employment, which all impact finances as the combined effect. These effects are mitigated or amplified by the factors listed between the causes and the effects. Taken

together, the causes, factors and effects will result in an outcome affecting the quality and stability of CAF military family life. The effects in this diagram are explored further in this chapter to gain a full appreciation of how moving, one of the causes, disrupts military families lives. In understanding the effects, the significance of telecommuting as a means of reducing moves to improve quality of life becomes apparent.

The Impact of a Move on Well-being

The psychological impacts of a move can be detrimental to the well-being of all the members of a military family. In Sue Jervis' book, *Relocation, Gender and Emotion: A psycho-Social Perspective on the Experiences of Military Wives*, she identifies friends, careers, homes and places as things which give us an identity. She postulates that when a person loses those identifying things to a geographical move, it leaves them feeling diminished or incomplete, undermining their identity. The loss of these emotional investments evokes emotional suffering, similar to the loss of a loved one, however what one is mourning is the death of their identity, their former life.[126] After the mourning period for a past life is over, Sue Jervis draws anecdotal evidence from interviews to highlight the loneliness that awaits a military spouse in a new location. As stated by one of the military spouses, "… the rate of military mobility means that there is never time at any one place to develop real friendships, so wives settle instead for 'acquaintances.'"[127] Feelings of loneliness are further exasperated when the military member is away from home due to training or a deployments. The psychological impacts from moving every two to three years can be very detrimental to the mental health and wellbeing of a spouse.

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[126] Sue Jervis, *Relocation, Gender and Emotion : A Psycho-Social Perspective on the Experiences of Military Wives* (London: Routledge, 2011), 49.
[127] *Ibid.*, 13.

Geographical moves also impact the mental health of children, placing additional stress on the family. A review of studies on the mental health of military-connected children noted conflicting results between moves, mental health issues and resiliency. The review concluded that, "the unique lifestyle of a military family can act as a catalyst to potentiate these resiliencies and vulnerabilities."[128] This hypothesis that military moves exacerbates vulnerabilities is supported by a study on children of military families with Autism Spectrum Disorder (ASD). In the study, "Parents noticed an increase in negative emotional and behavioral characteristics in their children with ASD and family stress after moving to a new location."[129] Another study conducted on adolescent military dependents in the US found a link between moves and disordered eating attitudes, which are precursors to eating disorders.[130] While studies have not connected a military move directly with the creation of mental disorders in children, there is evidence to suggest the stressors of a move have a negative impact on their mental health and compound any existing mental issues. Children, after all, are not insulated from the stress their parents experience, and when presented with 37 major life events, children rated moving as the 7th most stressful.[131] A military move evokes a strong emotional response, equivalent to the loss of a loved one for spouses, creates stress for the family and exacerbates mental

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[128] Heidi Cramm *et al.*, "The Mental Health of Military-Connected Children: A Scoping Review," *Journal of Child & Family Studies* 28, no. 7 (July 2019): 1730, doi:10.1007/s10826-019-01402-y.

[129] Jennifer Davis and Erinn Finke, "The Experience of Military Families with Children with Autism Spectrum Disorders During Relocation and Separation," *Journal of Autism & Developmental Disorders* 45, no. 7 (July 2015): 2030, doi:10.1007/s10803-015-2364-2.

[130] M.K. Higgins Neyland *et al.*, "Permanent Change of Station Moves and Disordered-Eating Attitudes and Behaviors in Prevention-Seeking Adolescent Military-Dependents," *Eating Behaviors* 40 (January 1, 2021): 3, doi:10.1016/j.eatbeh.2020.101470.

[131] J. B. Hutton*, et al., "*Ratings of severity of life events by ninth grade students," *Psychology in the Schools,* 24, no. 1 (January 1987): 66.

health issues in children leading to an overall negative impact on the well-being of military families.

The Impacts of a Move on Finances

A military move can have an immediate and long-term negative effect on the financial health of families. The purchase and sale of houses in volatile markets can result in an immediate loss of equity. The loss of spouses' employment from a move reduces long-term earning potential. Moving away from family and support networks can lead to increased costs. While programs exist to reimburse expenses, reduce costs and provide some additional benefits for a military move, the costs of a move likely far exceed any of the benefits.

Military members moving to a new geographical location have three options available: rent a Personal Military Quarters (PMQ), rent on the economy or purchase a house. The Canadian Forces Housing Agency (CFHA) provides PMQs at 27 locations across Canada, however they are limited in number with long waiting lists in the most expensive housing markets. As an example, Ottawa has 147 units available[132] for the 10,000 CAF members posted to the region.[133] As there are not enough PMQs available for all the members posted to the Ottawa area, members who cannot afford to purchase a house must instead rent an accommodation. Renting poses its own challenges as vacancy rates for many markets are low making it difficult to find suitable accommodations. As

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[132] Department of National Defence, Canadian Forces Housing Agency, "Annual Report 2016-2017," ISSN 2561-2743 (Ottawa: DND, 2017), 21.
http://www.forces.gc.ca/assets/FORCES_Internet/docs/en/about-reports-pubs/cfha-annual-report-2017.pdf
[133] Department of National Defence, "Canadian Forces Group Ottawa-Gatineau (CFSG (O-G))", accessed on 22 February 2022, https://www.canada.ca/en/department-national-defence/services/bases-support-units/canadian-forces-support-unit-ottawa.html

an example, the vacancy rate for Ottawa in 2018 was only 1.8%.[134] If a newly posted

member is fortunate enough to rent a suitable accommodation, there is always a risk that

they may be evicted if the owner sells, conducts major renovations or choses to live in the

dwelling themselves.[135] Given the low supply of suitable rentals and the desire to build

equity, many CAF members chose instead to purchase homes. In the early 1990s, the

CAF and Government of Canada decided to encourage CAF members to leave the bases

and to purchase a home in local communities[136] as building equity is a powerful savings

method to help fund a retirement.[137] As a result of this policy, 85 percent of military

families now live off base, and are subject to changes in the housing and rental markets.

 The most stressful and potentially costly aspect of a military move is the selling

and purchasing of a primary residence. Of the 1,991 adults surveyed by the Mortgage

Professionals of Canada, the most stressful life decisions were whether to move between

cities, purchase a home, have children and get married, ranked in that order.[138] This is

hardly surprising given the average cost of a house in Canada is $621,525 and some

military markets such as Victoria, BC the cost is upwards of $742,600.[139] The greatest

financial risk to a CAF homeowner is a geographical posting during a regional downturn

[134] City of Ottawa, Planning, Infrastructure and Economic Development, "2019 Annual Development Report," August 2020, http://ottwatch.ca/meetings/file/656260

[135] Ontario, "Residential Tenancies Act, 2006," Part V, 48-50. https://www.ontario.ca/laws/statute/06r17

[136] Pierre Daigle, "On the Homefront: Assessing the Well-being of Canada's Military Families in the New Millennium," Special Report to the Minister of National Defence, (Ottawa: Canada Communication Group, 2013), 7.

[137] Barbara Shecter, "Reverse mortgage business is booming in Canada as seniors tap home equity to pay debts," *The Financial Post*, 14 January 2020, https://financialpost.com/real-estate/mortgages/reverse-mortgage-business-is-booming-in-canada-as-seniors-tap-home-equity-to-pay-debts

[138] Will Dunning, "Home Buying in 2019 is hard work," *Mortgage Professionals Canada*, August 2019, https://mortgageproscan.ca/docs/default-source/consumer-reports/home-buying-in-2019_mid-year-report.pdf

[139] Canadian Real Estate Association, Housing Market Stats, "National Price Map," accessed 22 February 2021, https://www.crea.ca/housing-market-stats/national-price-map/

in the housing market. As an example, the Victoria, BC housing market experienced

downturns of 13% in the late 70's, 42% in the early 80's, 12% in the late 90's and 10%

between 2010 and 2014.[140] A CAF member forced to move from Victoria could easily

lose $70,000 of their home equity if they were forced to sell during another 10%

downturn in the market. Fortunately, the government of Canada will reimburse 80% of a

loss up to $30,000,[141] but that would still leave the former Victorian short $40,000.

Significant housing losses by CAF soldiers in the past has resulted in class action

lawsuits against the Government of Canada citing losses of $88,000 and $72,000 on

home sales.[142] With hundreds of thousands of dollars on the line, selling a home due to a

posting can be a very stressful and costly venture.

Purchasing a new home can be an equally stressful and costly part of a military

move. CAF members are funded for one to two, one-week trips to find a residence.[143]

While finding a house in a week is difficult at the best of times, new real-estate tactics in

active markets are making it near impossible. A new trend in selling houses is for the

seller to accept offers but not to look at them for a few days. This tactic in active markets

creates bidding wars where risky, unconditional, over asking offers are more often than

not required to purchase a house.[144] In reference to the recent housing market and bidding

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[140] S. Leo, "Has it ever been a bad time to buy Victoria real estate?" *House Hunt Victoria*, 31 March 2019, https://househuntvictoria.ca/2019/03/31/has-it-ever-been-a-bad-time-to-buy-victoria-real-estate/

[141] Treasury Board of Canada, "Compensation Benefits Instructions (CBI) 208.97, last updated 2008.

[142] Richard Cuthbertson, "Soldier Neil Dodsworth launches class action over home sale losses," *CBC News*, 30 September 2014, https://www.cbc.ca/news/canada/nova-scotia/soldier-neil-dodsworth-launches-class-action-over-home-sale-losses-1.2781617

[143] Department of National Defence, "Relocation Directive – Chapter 4 – House Hunting Trip (HHT) and Destination Inspection Trip (DIT)," 19 April 2008, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/relocation-directive/2018/chapter-4.html

[144] Peggy Blair, "How to be a buyer in this crazy hot Ottawa real estate market!," *Kiss and Sell*, 11 March 2018, https://peggyblairrealtor.wordpress.com/2018/03/11/how-to-be-a-buyer-in-this-crazy-hot-ottawa-real-estate-market/

wars in Ottawa, Royal LePage Sales Representative Peggy Blair simply states, "Know ahead of time that you are going to overpay."[145] The delay in reviewing offers results in a CAF member only having enough time on their house-hunting trip to put a bid on one house and likely not know if they have secured a residence until after they have returned home. Overpaying for a house due to a bidding war or expensive repairs is inconsequential overtime as housing prices will gradually rise, however they will likely lose money on the transaction if they are required to sell in a year or two. The recent real-estate trends in active markets poses an increased financial risk and significant stress to CAF families purchasing a new home.

The largest long-term financial impact of a move is likely to spouses' earning potential. Unless a spouse is self-employed or can telecommute, they will likely lose their employment, seniority and benefits upon a posting. According to the Canadian Information Center for International Credentials, approximately 20% of jobs in Canada are regulated by a province or territory. These professions, like nursing, require different certification or registration for each province. The time and costs of acquiring these certifications may be barriers to employment for a two to three year posting to a new province. An American study on the impacts of a change-of-station move on spousal income from 2001-2012 found that spouses loose on average 14% of their pay in the year of a move and that the effects are still present 3 years later.[146] The study implies that moving every 3-4 years prevents a spouse from building any human capital as they will just have financially recovered from a move in time for the next one. While a military

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[145] *Ibid*.

[146] Jeremy Burke and Amalia R. Miller, "The Effects of Job Relocation on Spousal Careers: Evidence from Military Change of Station Moves," *Economic Inquiry* 56, no. 2 (April 1, 2018): 1275. doi:10.1111/ecin.12529.

member's career grows with moves, their spouse's career dwindles and dies leading to a very unrewarding employment experience. As the DND/CAF Ombudsman stated in 2013, " It is very difficult for non-serving CF spouses to find and sustain reasonable, gainful, continuous employment," and a "significant obstacle to spousal employment is the lack of professional opportunities in smaller communities where many CF members are posted."[147] The combination of lost earnings potential and a poor employment experience from successive moves is likely impacting retention in the CAF.

The Impacts of a Move on Healthcare

Geographical moves are affecting the healthcare of CAF members' families. In the US, spouses and children of service members receive care through the military medical system. In Canada, the families of serving members receive their care through the normal provincial or territorial healthcare system.[148] This creates a problem for Canadian families who are required to search for a primary family physician each time they move to a new geographical area. Currently there is a doctor shortage across Canada and, as of the 2016 Census, 15.8% of Canadians, 4.8 million, were unable to get a primary health care provider.[149] This problem is often exasperated in smaller communities where military bases are located as the military health system is competing for the same small pool of available doctors in the community.[150] Without openings at local doctor's offices, newly posted families are left on a wait list and resort to walk-in clinics or emergency care. Some families are posted with such frequency that they

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[147] Pierre Daigle, "On the Homefront: Assessing …," 6.

[148] Anne Rowan-Legg, "Caring for children and youth from Canadian military families: Special considerations," *Paediatr Child Health*, vol. 22, no. 2 (2017): e2.

[149] Statistics Canada, "Primary Health Care Providers, 2016," 27 September 2017, https://www150.statcan.gc.ca/n1/pub/82-625-x/2017001/article/54863-eng.htm

[150] Pierre Daigle, "On the Homefront: Assessing …," 45.

bounce from one clinic's waiting list to the next, without ever making it to the top.[151]
Others have resorted to keeping their doctors at former postings and travelling long
distances for family doctor's visits.[152] Without geographical stability, the families of
many CAF members are left without a family doctor.

A family doctor is an important aspect of healthcare. "People who have a family
doctor and see that same doctor regularly … are more likely to have better health
outcomes," said Dr. Tara Kiran, a Toronto-based family physician. Continuity from a
single healthcare provider, such as a family doctor, increases the likelihood that patients
will get the screenings required for efficient management of chronic conditions. [153] This
view is supported by a study on patient centered communication, which noted that good
patient-physician relationships improved health outcomes and the efficiency of care.[154]
Unfortunately for many CAF families who cannot secure a family doctor, they are
destined to have less favourable health outcomes.

CAF families requiring specialists face the same issues surrounding family
physicians and continuity of care. Prior to getting specialized care, a specialist is often
required to make a diagnosis of a disease, disorder or impairment. The limited
availability of specialists combined with limited provincial funding for healthcare often
results in waitlists for diagnosis. As an example, in Ontario, families wait between two
and four years for an Autism assessment. [155] Since the provinces and territories are

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[151] *Ibid.* 44.
[152] *Ibid.* 45.
[153] Olivia Bowden, "How to find a family doctor in each province and territory," *Global News*, 1 March 2020, https://globalnews.ca/news/6604759/find-family-doctor/
[154] M. Stewart *et al.*, "The Impact of Patient-Centered Care on Outcomes," *The Journal of Family Practice* 49, no. 9 (2000): 803,804.
[155] Paula Duhatschek, "Ontario moms 'schocked' by wait times for provincial autism screening," *CBC News*, 3 October 2018, https://www.cbc.ca/news/canada/london/wait-times-ontario-autism-program-screening-1.4847170

responsible for healthcare, a posting to a different province or territory would result in a

new waitlist for an assessment, potentially delaying needed treatment. Further

exasperating the problem, many Canadian Forces Bases and Air Wings are located in

remote areas with very few resident specialists.[156] This requires costly time and travel by

families to larger city centers to receive treatment. As the DND/CAF Ombudsman stated

in 2013, "Accessing health care and maintaining a reasonable level of continuity during

mandatory moves remains a persistent challenge for military families."[157]

The Impacts of a Move on Education

The lack of geographical stability can be detrimental to the education of children.

An American study on the impact of household relocations on children's academic

achievements found a modest negative effect between moves and test scores. The

negative effects increased for single parents, those with a mother in the military, and for

younger children.[158] The American military has realized the additional stress and the

educational impact of military life on children, and each service has their own program to

help children adapt to a new geographical location. As an example, the US Marine Corps

has instituted the School Liaison Program, which "focuses its efforts on making

transitions for military school age children easier." [159] The US Army has School Liaison

Officers who serves as a point of contact for school-related matters, assists Commands

and military families with school issues, and create partnerships between the military and

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[156] Pierre Daigle, "On the Homefront: Assessing …," 46.

[157] *Ibid*., 6.

[158] David S. Lyle, "Using Military Deployments and Job Assignments to Estimate the Effect of Parental Absences and Household Relocations on Children's Academic Achievement," *Journal of Labor Economics* 24, no. 2 (April 2006): 322. doi:10.1086/499975.

[159] Marine Corps Community Services, "School Liaison," accessed 25 February 2021, https://usmc-mccs.org/services/family/school-liaison/#:~:text=The%20School%20Liaison%20Program%20(SLP,behalf%20of%20the%20military%20child.

schools.[160] While the CAF has the Military Family Resource (MFRC) with a mission "to contribute to the well-being of Canadian Armed Forces families,"[161] the MFRC is not directly involved with military families and the schools like the American programs as it only provides workshops and resources. This is problematic for CAF families and their children as the absence of adequate support within the community and schools adds stress and can lead to anxiety in children.[162] Excessive stress results in long-term consequences such as poor academic performance and school dropout.[163] Relocating to a new school and community is stressful on children and generally results in negative educational outcomes.

Geographical moves can be devastating for children with special needs. The number of children requiring special needs education programs and services is significant, estimated at 17.3% of Ontario students in 2015-2016. [164] In Canada, like with healthcare, education is the responsibility of the provincial and territorial governments. As such, each will have their own methods of selecting and assessing exceptional children. In the province of Ontario, School boards are provided flexibility to use special education funding to support their priorities and policies therefore the level of educational

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[160] Army, MyArmyBenefits, "School Liaison Officer," accessed 25 February 2021, https://myarmybenefits.us.army.mil/Benefit-Library/Federal-Benefits/School-Liaison-Officer?serv=120#:~:text=The%20Army%20School%20Liaison%20Officers,hour%20distance%20of%20their%20installation.&text=Promote%20parental%20involvement%20and%20educate,the%20needs%20of%20military%20Children

[161] CAF Connection, Military Family Resource Center, "Our Mission & Vision," accessed on 25 February 2021, https://www.cafconnection.ca/National-Capital-Region/Contact-Us/Military-Family-Resource-Centre/Mission.aspx

[162] Theresa J. Russo and Moira A. Fallon, "Coping with Stress: Supporting the Needs of Military Families and Their Children," *Early Childhood Education Journal* 43, no. 5 (September 1, 2015): 414. https://search-ebscohost-com.libproxy.slc.me/login.aspx?direct=true&db=eric&AN=EJ1071429&scope=site.

[163] M. Maajida Aafreen, V. Vishnu Priya and R. Gayathri, "Effects of stress on academic performance of students in different streams," *Drug Invention Today* 10, no. 9 (2018): 1778.

[164] Ontario, Ministry of Education, "2018-29 Education Funding: A Guide to the Special Education Grant," ISSN 2371-1019 (Ontario: Queen's Printer for Ontario, 2018), 3.

support will likely be inconsistent between school boards.[165] With limited funding, children who have been identified by a school as potentially having a special need must wait for an assessment by a specialist arranged through their schoolboard. The Toronto District Schoolboard currently estimates 12-15 months to see a psychologist and 6 – 12 months to see a speech-language pathologist. [166] If a child moves to a new schoolboard, the process recommences which could delay an assessment and treatment by years. Since funding varies by province, a special needs child relocating from a wealthy to a poor province would likely see a decrease in the support provided by the school system, resulting in a poorer educational outcome. Geographical moves can be devastating for military families waiting for special needs assessments and those with special needs who move to a poorly funded educational system.

Summary

Attrition in the CAF is outpacing recruiting, affecting the CAF's ability to achieve its mandate. Attrition is problematic for the CAF as it cannot simply hire experienced personnel off of the street as it must train them internally. The Exit Survey noted many dissatisfiers related to geographical moves with 40% indicating that it influenced their decision to leave the military. A geographical move results in many negative effects on the stability and quality of CAF members' life.

A move has psychological effects, which exacerbate mental illness in children and leave spouses mourning the loss of their former life. Families will experience financial

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[165] *Ibid.*, 6.

[166] Toronto Catholic District Schoolboard, Program Services, Special Education, "Educational land Other Assessments," accessed 25 February 2021, https://www.tcdsb.org/ProgramsServices/SpecialEducation/SpecialEducationPlan/SpecEdPlanDoc/Educati onal%20and%20Other%20Assessments.pdf

effects as swings in the housing market can result in thousands of dollars lost in equity. Furthermore, the quality of employment at many bases is limited. Spouses regularly take a pay cut during a move and therefore will likely never achieve their full earnings potential. There is a doctor and specialist shortage across Canada requiring military families to go on a waiting list to find a doctor after a move. Delays in seeing a specialist and acquiring a family doctor have a negative effect on the health of military families. A move is stressful for children and excessive levels of stress is attributed to poor academic performance and truancy. Similar to healthcare, constant moving can create delays in seeing a specialist for diagnosis and treatment for learning disabilities, resulting in a negative effect on education. Constant moving is the most unsettling factor of military lifestyle and directly related to attrition. Telecommuting provides a means of reducing the number of military moves a family experiences and therefore could to form part of the CAF's retention plan.

CHAPTER 4 –OTHER DND REQUIREMENTS

As part of the federal government, the CAF is required to meet a variety of objectives beyond its primary purpose of defending Canadian interests. These include legal requirements to conduct business continuity planning as well as helping the federal government achieve its environmental goals. While seemingly unrelated, telecommuting could improve the CAF's ability to meet both these requirements.

Business Continuity

Business continuity is the concept that an organization needs to be prepared to continue to function in the event of a disaster. Businesses carry insurance on buildings, back-up customer and financial data on separate servers and take other precautionary measures to ensure that a single event, like a fire, does not become catastrophic for the organization. The CAF is a resource of last resort for Canada and requests to assist civil authorities in dealing with disasters such ice storms in Quebec or floods in Alberta, have increased ten-fold in recent years.[167] As such, the DND is an essential department within the government, and conducts business continuity planning to lower the risk of interruptions in services, so it is available to respond in the event of an emergency.

Legislation and directives require the DND to continue to function in the event of an emergency. The Emergency Management Act of 2007 requires ministers to establish "policies, programs and other measures respecting the preparation, maintenance, testing and implementation by a government institution of emergency management plans."[168] Treasury Board Policy requires departments to conduct business continuity management

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[167] Eva Cohen, "Military Aid to the Civil Power; How Much is Enough?," *esprit de corps, Canadian Military Magazine,* 1 April 2020, http://espritdecorps.ca/perspectives-1/military-aid-to-the-civil-power-how-much-is-enough

[168] Emergency Management Act of 2007, 3 (a). https://laws-lois.justice.gc.ca/PDF/E-4.56.pdf

in order to, "… provide reasonable assurance that in the event of a disruption, the department can maintain an acceptable level of delivery of critical services …"[169] As a result of the act and Treasury Board Policy, business continuity planning (BCP) is conducted by the DND as per Defence Orders and Administrative Directives (DOAD) 2006-0, Defence Security.[170] To achieve the aim of the directive and the legal requirement, each Command in the CAF has developed plans to mitigate a multitude of scenarios from sustained power outages to relocating headquarters in the event of an emergency.

The concentration of DND members in the Ottawa area leaves the department susceptible to business interruptions. On 21 September 2018, a powerful storm spawning multiple tornadoes hit Canada's capital city of Ottawa, home to their National Defence headquarters, which employs 17,400 personnel in over 40 locations.[171] The storm effectively shut down the city, suspending public transit and leaving 3,000 customers without power.[172] Parents were unable to go to work as schools and daycares were shut down. DND employees who depend on public transit could not get to work as the buses and trains were not running, and even if they could, DND buildings without backup-generators were without power. The disaster highlights the susceptibility of the DND to a localized event, whether it is an enemy attack on the city or a natural disaster. With one

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[169] Treasury Board, *Policy on Government Security*, ISBN: 978-0-660-09914-9 (Ottawa: Canada Communications Group, 2019), https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578&section=html

[170] Department of National Defence, "DOAD 2006-0, Defence Security," last modified 27 September 2019, https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/2000-series/2006/2006-0-defence-security.html

[171] David Pugliese, "DND employees to move again as exodus from downtown HQ frees up space," *Ottawa Citizen*, 9 December 2019, https://ottawacitizen.com/news/national/defence-watch/dnd-employees-to-move-again-as-exodus-from-downtown-hq-frees-up-space

[172] Blair Crawford, "Tornado aftermath: 'The roof fell on us' – Twisters leave residents awestruck and in the dark," *Ottawa Citizen*, 23 September 2018, https://ottawacitizen.com/news/local-news/update-ottawa-tornado-cleanup

fifth of the DND residing in the Ottawa area, the concentration of employees increases the risk to business continuity from a localized event.

The business continuity of the DND is also susceptible to nation-wide crises. The COVID-19 Pandemic began in 2019, and at the time of this paper continues to affect the world a year and a half later. The World Health Organization notes that the virus is primarily spread through droplets from coughing or sneezing. To prevent community spread people are advised to "practice physical distancing by avoiding unnecessary travel and staying away from large groups of people."[173] In response to the pandemic, Operation *Laser* was initiated in order to preserve the CAF so they may be prepared to assist the Government of Canada in combating the disease. The operation directed the majority of the CAF to stay at home to prevent community spread, with emergency manning allowed to support ongoing operations.[174] The CAF does not have a policy on telecommuting and therefore it is unlikely the organization was prepared for remote work. As such, at the onset of the pandemic the CAF would have lacked the policies and the equipment to work effectively from home, resulting in a cessation of non-critical activities and affecting the business continuity of the department.

The Spanish Flue ravaged the world between 1918 and 1920, the end of COVID-19 is still unknown, but what scientist do know is that this is not the last pandemic. In an interview with the BBC, Professor Matthew Baylis from the University of Liverpool stated, "In the last 20 years, we've had six significant threats – SARS, MERS, Ebola, avian influenza and swine flu. We dodged five bullets but the sixth [COVID-19] got

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[173] World Health Organization, Health Topics, "Coronavirus," accessed 13 February 2021, https://www.who.int/health-topics/coronavirus#tab=tab_2

[174] Department of National Defence, CANFORGEN 039/20 Novel Coronavirus (COVID-19) Update, 3 March 2020.

us."[175] The encroachment of humans on wildlife has increased the rate at which humans

contract diseases from wildlife.[176] The speed and ease at which diseases now spread

around the world has increased due to travel from globalization.[177] The combination of

the increased human interaction with wildlife and globalization leaves little doubt that

Canada will be subject to another global pandemic from a zoonotic disease.

The DND can utilize telecommuting to lower the department's risk to business

continuity. The internet was developed in part to maintain command and control across

the US in the event that any one area was attacked by the USSR.[178] In a similar fashion,

telecommuting can be used to create a dispersed command and control structure for the

CAF rather than it being concentrated in one city, such as Ottawa. Telecommuting CAF

members could conceivably be spread throughout the country, limiting the impacts of a

disruption to any one location. CAF Army doctrine recognizes the concept of Adaptive

Dispersion to protect a force from collateral damage while maintaining the ability to

coordinate actions to concentrate power.[179] An effective telecommuting force adheres to

this doctrine by achieving security through dispersion by employees working from home,

while maintaining a command and control structure through networks and technology.

Whether an ice storm, terrorist attack or tornado, telecommuting allows for a dispersed

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[175] Victoria Gill, "Coronavirus: This is not the last pandemic," *BBC*, 6 June 2020,
https://www.bbc.com/news/science-environment-52775386
[176] Ibid.
[177] A.J. McMichael and R. Beaglehole, "The Changing Global Context of Public Health," *The Lancet* 356, no. 9228 (Aug 05, 2000): 497, doi:http://dx.doi.org.cfc.idm.oclc.org/10.1016/S0140-6736(00)02564-2.
[178] Craig, Timberg, "Your Internet is working. Thank these Cold War-era pioneers who designed it to handle almost anything," *The Washington Post*, 6 April 2020,
https://www.washingtonpost.com/technology/2020/04/06/your-internet-is-working-thank-these-cold-war-era-pioneers-who-designed-it-handle-almost-anything/
[179] Department of National Defence, *Close Engagement: Land Power in an Age of Uncertainty – Evolving Adaptive Dispersed Operations*, ISBN: 978-0-660-27741-7, (Kingston, ON: Army Publishing Office) 17.

workforce that can continue to function in the event of a localized emergency, lowering the risk to business continuity.

Telecommuting can lower the risk of a business interruption from the next pandemic. As a result of Operation *Laser*, the DND rapidly evolved by developing new procedures and tools to allow members to work remotely, a form of telecommuting.[180] As an example, Canadian Forces Bases developed procedures for members to clear-in to the base by email, a process of registering with organizations at a new base, limiting contact between people.[181] Military courses, such as the Joint Command and Staff Program (JCSP) switched from in-class learning at the Canadian Forces Staff College to a remote learning environment, allowing candidates to abide by stay at home orders.[182] The adoption of telecommuting can reduce physical interaction and has been used as a means of preserving the DND and CAF during the COVID-19 Pandemic. It is highly likely that COVID-19 will not be the last pandemic and the DND can lower its risk to business continuity by permanently adopting telecommuting practices that limit personal interaction.

The Environment

The Trudeau Government is determined to reduce its carbon footprint in response to the threat of global warming. The government is planning to exceed the greenhouse gas (GHG) emissions reductions set by the Paris Accord on Climate change by 8 MT in

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[180] Department of National Defence, "Defence Team COVID-19-Working remotely," last updated 2 February 2021, https://www.canada.ca/en/department-national-defence/campaigns/covid-19/working-remotely.html

[181] Department of National Defence, Canadian Forces Support Unit Ottawa, "POSTING IN Part 1 – generic email," email, 7 May 2020.

[182] Canadian Forces College, "Joint Command and Staff Programme Joining and Administrative Instructions," Joint Command and Staff Program 47, 2020.

2030.[183] Global warming is caused by increases in Greenhouse gas (GHG) emissions, primarily from the burning of fossil fuels.[184] The DND is the largest department with a budget over 14 billion, 127,000 employees[185] and the largest polluter accounting for 31% of the total federal government's GHG emissions.[186] In order to support the government's green initiatives, the DND needs to go on a hydrocarbon diet.

To help the government achieve its emission goals, the DND is implementing new green initiatives[187] and plans to play a leadership role in the reduction of GHG emissions.[188] The Defence Energy and Environment Strategy (DEES) outlines the DND's plan to achieve its green targets. The plan involves implementing innovative energy solutions for military activities and operations, and reduce the environmental footprint of the infrastructure portfolio.[189] While not addressed in the plan, telecommuting can form part of the solution to achieve these goals.

Telecommuting has the potential to lower GHG emissions from transportation and help Canada achieve its GHG targets. As of 2018, transportation from light-duty vehicles

[183] Environment and Climate Change Canada, *Canadian Environmental Sustainability Indicators: Progress towards Canada's greenhouse gas emissions reduction target*, ISBN: 978-0-660-33459-2, (Ottawa: Canadian Communications Group, 2020), 6, https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/progresstowards-canada-greenhouse-gas-emissions-reduction-target.html.

[184] NASA, Global Climate Change, Vital Signs of the Planet, "Overview: Weather, Global Warming and Climate Change," accessed on 8 February 2021, https://climate.nasa.gov/resources/global-warming-vs-climate-change/

[185] Department of National Defence, "Department of National Defence/Canadian Armed Forces Footprint," last modified 11 March 2021, https://www.canada.ca/en/department-national-defence/corporate/reports-publications/transition-materials/defence-101/2020/03/defence-101/dnd-caf-footprint.html

[186] Carl Meyer, "Federal government's largest polluter is Department of National Defence," *National Observer*, 30 November 2020, https://www.nationalobserver.com/2020/11/30/news/national-defence-largest-polluter-federal-government

[187] Department of National Defence, *Strong, Secured, Engaged...*,75-77.

[188] Government of Canada, "Greening Defence," accessed 9 February 2021. https://www.canada.ca/en/department-national-defence/services/greening-defence.html

[189] Department of National Defence, *Defence Energy and Environment Strategy 2020-2023*, 978-0-660-35846-8, (DND: Ottawa, 2020), https://www.canada.ca/content/dam/dnd-mdn/images/dees2020/2020-23%20Defence%20Energy%20and%20Environment%20Strategy_EN%20-%20Signed.pdf

in the US, which are used primarily for personal transportation, accounted for 16.5% of GHG emissions.[190] Assuming Canadian GHG emissions generally mimic those of the US, Light-duty vehicles should represent 16.5% of Canada's total 1,318 Megatonnes (MT) of GHG emissions, calculated at 217 MT based on 2015 levels.[191] To achieve its 2030 goals, Canada is projecting emissions reductions of 12 MT, from 2015 levels, for the transportation sector as a whole.[192] This represents only a 5.5% reduction from the 217 MT light duty vehicle emissions. This could be achieved if on average Canadians were able to drive one day less per week, a 14% reduction, a feat made possible working at home by telecommuting.

Telecommuting can be used to reduce the carbon footprint generated from maintaining office spaces. The DND uses over 8,300 non-residential buildings to meet its mandate,[193] at an approximate cost of $2 billion per year in real property costs.[194] The natural gas used to heat federal buildings is significant and accounts for 63% of GHG emission for the entire government.[195] To achieve its targets, the Canadian government plans to reduce GHG emissions from buildings by 44 MT. The DEEs outlines plans to renovate DND buildings, at the cost of $225 million, to reduce their carbon footprint in support of the federal government's goals.[196]

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[190] United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018*, EPA 430-R-20-002, 13 April 2020, 3-26. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

Environment and Climate Change Canada (2020), *Canadian Environmental Sustainability ...*, 6.
[192] *Ibid.*
[193] Department of National Defence, "Transfer or sale of Defence properties," accessed 26 February 2021, https://www.canada.ca/en/department-national-defence/services/transfer-sale-defence-properties.html
[194] Department of National, Defence, *Canada First Defence Strategy* (Ottawa: DND, 2017), 11.
[195] Carl Meyer, "Federal government's largest polluter ...,"
[196] *Ibid.*

Working remotely, part-time or full-time can reduce the need for buildings and help the DND slim down its carbon footprint. Under the GCworkplace initiative, Government of Canada buildings are transitioning to an activity-based workplace which focuses on providing a multitude of workspaces tailored to a task rather than assigning a specific workspace to each employee.[197] This allows for hot-desking, a term that describes an office being used by more than one employee. A single office therefore could support multiple part-time telecommuters reducing the total amount of office space required for the department. The DND plans to renovate its buildings to improve their efficiency and reduce their carbon footprint. Enabling employees to work remotely, however, eliminates the need for a building altogether, further reducing the carbon footprint and saving the department significant real property costs. Telecommuting could form part of the DND plan for greening defence and support the federal government's GHG emission targets, as working remotely is a cost effective means of reducing office space requirements and the associated carbon footprint.

Summary

Legislation requires the DND to develop business continuity plans so the organization is prepared to function in the event of a crisis. A severe weather event in Ottawa effectively shut down the city, resulting in an interruption in services. This demonstrates that DND is susceptible to a localized disaster as one fifth of the department resides within the Ottawa area. Telecommuting provides a means of dispersing the department's employees and command structure so it will continue to function after a localized catastrophic event.

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[197] Public Works Government Services Canada, "Activity Based Workplace," last updated 6 November 2019, https://www.tpsgc-pwgsc.gc.ca/biens-property/mt-wp/mtaa-abw-eng.html

The COVID-19 Pandemic, spread through close personal proximity, required the activation of Operation *Laser*. The operation forced non-critical personnel to remain at home to preserve the force. Prior to the pandemic, the CAF was not prepared to work remotely from home, lacking policies and equipment, which resulted in an interruption to services. Zoological disease, like COVID-19, are increasing in frequency and another pandemic will occur. Implementing telecommuting in advance of a pandemic could help limit its effects on CAF services.

Global warming is caused by increases in Greenhouse gas (GHG) emissions, primarily from the burning of fossil fuels. The Trudeau Government, as a signatory to the Paris Accord on Climate Change, intends on reducing GHG emissions. As the largest polluter, accounting for 31% of federal government GHG emissions, the DND plans on taking a leadership role in reducing its carbon footprint and support the government's green initiatives. Light-duty vehicles, primarily used for personal transportation, account for 217 MT of GHG emissions. A mere 5.5% reduction in driving by the average Canadian, less than 1 day per week through the adoption of telecommuting, could achieve the government's planned 12 MT reduction in the transportation sector.

The DND uses 8,300 non-residential buildings to meet its mandate, which generate a significant carbon footprint due to the use of natural gas for heating. The Canadian government intends to renovate buildings to reduce GHG emissions at a cost of $225 million. Telecommuting from home could reduce the number of buildings the DND maintains, their carbon footprint, and save the department a portion of the $2 billion spent yearly on real property. Telecommuting from home reduces GHG emissions from

commuting to work and heating buildings, and could be implemented as part of a cost

effective green strategy.

CHATPER 5 – PROBLEMS AND RECOMMENDATIONS

Militaries are known for their great leaders, such as Alexander the Great, Patton and General Schwartzkopf, providing inspirational speeches on podiums to large crowds. They stand before soldiers on parade, each soldier indistinguishable from the other, marching and saluting in unison. These iconic aspects of the military maybe the greatest hurtles the CAF will need to overcome if it were to widely adopt telecommuting.

The CAF divides leadership along two general lines, leading people and leading the institution.[198] Leading people refers to the direct influence that leaders use to compel their subordinates to follow. Traditionally this has been done face-to-face which may create a problem as working remotely affects communication and interactions, which degrade a leader's ability to use or practice direct influence. Leading the institution refers to the military's policies, structure and culture which molds a person into a soldier, sailor or aircrew. The ways in which the CAF maintains influence over its members draws parallels to those utilized in prisons, described as a *Total Institution*.[199] Working remotely may be a problem as it removes CAF members from the bases and military communities which make up the institution, thereby affecting senior leaders' ability to influence the CAF and impart its culture.

The CAF, based on its unique nature, is likely to encounter other problems in adopting telecommuting. Working from home may pose a problem for many positions within the CAF that are entrusted with sensitive material, as homes do not normally contain the required infrastructure or networks. Working remotely from home increases

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[198] Department of National Defence, A-PA-005-00/AP-004, *Leadership in the Canadian Forcces: conceptual* foundations (Ottawa: National Defence, 2005), 4.

[199] Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates* (Garden City, New York: Anchor Books, 1961), 16.

the risk to cyber attacks, which is problematic for the CAF as the Canadian National Cyber Threat for 2020 noted,

> State-sponsored actors will almost certainly continue to conduct commercial espionage against Canadian businesses, academia, and governments to steal Canadian intellectual property and proprietary information.[200]

A defining difference between the members of the CAF and civilian's within the DND is the requirement for universality of service. This requires the maintenance of skillsets, requiring an assortment of weapons, ranges and trainers not suitable for the home office. The aforementioned problems with telecommuting may seem insurmountable for the CAF, but there is hope. The Reserve Force, consisting of 27,000 personnel spread across Canada, function in light of these issues suggesting the solution to telecommuting in the CAF resides within the halls of their units. The final section of this chapter will provide recommendations on implementing telecommuting in a manner that mitigates the aforementioned problems, so the force can achieve its maximum telecommuting participation and the associated benefits.

Unique CAF Problems

Problem #1 - Telecommuting and Leading People

Military leadership practices may be incongruent with the remote and dispersed nature of telecommuting. War movies often depict a charismatic military leader, leading by example, providing inspirational speeches to troops prior to commencing an arduous task. Imagine Mel Gibson with a Scottish accent, face painted white and blue, yelling through a choppy zoom call, "They may take our lives… but they cannot…

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[200] Canadian Centre for Cyber Security, *National Cyber Threat Assessment 2020*, https://cyber.gc.ca/en/guidance/national-cyber-threat-assessment-2020

ake…r…fr…dom!" The image leaves a lot to be desired in an inspirational speech. While Zoom did not exist during the Battle of Falkirk in 1298, the style of William Wallace's direct leadership is still taught by modern militaries. This is likely problematic for militaries employing telecommuting as direct and charismatic aspects of military leadership are likely less effective when employed remotely.

The Conceptual Foundations of Leadership in the Canadian Forces describes aspects and theories of leadership, which rely on communication and observation. Leadership is a "goal-directed process of social influence,"[201] and influence can be segregated into direct and indirect components. Direct influence means "face-to-face influence on others which has an immediate effect on their ability, motivation, behaviour, performance, attitudes, or related psychological states …"[202] Direct influence is used to lead individuals or small groups.

Leaders derive personal power, a component of direct influence, from their character traits. Leadership character traits include social capacities such as empathy, listening, persuasion and interpersonal skills.[203] Leaders need to be able to effectively communicate with subordinates in order to demonstrate these social capacities. Leadership character traits also include their personality, which consists of integrity, self-assurance, modelling of self-control and effective coping behavior.[204] Leaders need to be observed by subordinates, sometimes in stressful situations, so they may ascertain a leader's personality.

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[201] Department of National Defence, A-PA-005-00/AP-004, *Leadership in the Canadian Forcces: conceptual* foundations (Ottawa: National Defence, 2005), 2.
[202] *Ibid.*, 6.
[203] *Ibid.*
[204] *Ibid.*, 62.

These character traits and the ability to project personal power are aspects of Charismatic Leadership. Charismatic leaders are able to cause subordinates to form strong emotional attachments and be committed to the leader. Research suggests that charismatic leaders project self-confidence, strong convictions, and express themselves convincingly and powerfully.[205] Charismatic Leaders, building on the components of personal power, require a means of effectively communicating. and being observed by subordinates. Communication and observation are indispensable components of CAF leadership theory in leading people.

Telecommuting affects communication and interactions, degrading a leader's ability to employ direct influence. As previously discussed, telecommuting negatively impacts communication[206] due to the inability to use nonverbal messages.[207] This is problematic for military leaders as they use content, tone, intensity and other behaviours to influence others.[208] The remote nature of telecommuting results is less frequent interactions between managers and employees, degrading their relationship.[209] The degradation affects a leader's ability to effectively communicate and demonstrate the aforementioned social capacities required for leaders to build personal power. Decreases in interactions prevent employees from observing a leader's personality, another means for leaders to build personal power. Degradation in communication and interaction with employees from telecommuting affects a leader's personal power, a component of direct influence, and the CAF's overall ability to generate competent leaders.

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[205] *Ibid.*, 67.
[206] Julianne Mahler, "The Telework Divide: Managerial and Personnel Challenges …, 414.
[207] Andrew J. Dubrin, "Comparison of the Job Satisfaction and Productivity …," 1225.
[208] Department of National Defence, A-PA-005-00/AP-004, *Leadership in the Canadian …*, 64.
[209] Ravi S. Gajendran and David A. Harrison, "The Good, the Bad …," 1530.

Problem #2 - Leading the Total Institution

Imparting the CAF culture is of prime importance to senior leadership. Legendary management consultant Peter Drucker once said, "Culture eats strategy for breakfast." Culture is a very important aspect of leadership in the CAF. "Exercising stewardship of the profession through the strengthening of professional capabilities and culture,"[210] is one of the four ways in which senior leaders lead the institution. A perversion or lack of CAF culture has been attributed to notable events in the CAF such as the atrocities in Somalia, and the Deschamps Report, resulting in the creation of a new senior CAF position, Chief of Professional Conduct and Culture.[211] The CAF, arguably, projects its culture onto its members by maintaining the characteristics of a *Total Institution*.[212] Telecommuting could change the dynamics of those characteristics, and the CAF's status as a Total Institution. Remaining a Total Institution is important to senior leaders as an effective means of inculcating CAF culture, a necessity to maintain an effective force, and therefore will be weary of adopting any new practice which threatens its coveted status.

The Canadian Armed Forces is a *Total Institution*, a concept derived by the renowned Canadian-American Sociologists, Erving Goffman. Goffman describes a Total Institution as "a place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life."[213] During the Second World War, the

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[210] Department of National Defence, A-PA-005-00/AP-004, *Leadership in the Canadian* …, 100.

[211] Murray Brewster, "Department of Defence hiring high-level culture czar to fight sexual misconduct and racism in ranks," *CBC News*, 23 April 2021, https://www.cbc.ca/news/politics/military-racism-sexual-misconduct-vance-mcdonald-1.5998754

[212] Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates* (Garden City, New York: Anchor Books, 1961), 16.

[213] *Ibid.*

Canadian military establishment swelled and a Crown Corporation, Wartime Housing Limited, built 26,000 housing units on and around Canadian Forces Bases for war workers and veterans.[214] This ushered in an era of military members and their families living on bases, with the base providing all the necessities of life such as children's schools, shopping, bowling allies and movie theatres. The military created a closed society where members worked and lived with little outside influence: a Total Institution.

The CAF exhibits the four main characteristics associated with a total institution. The first characteristic is batch living, where a "member's daily activity is carried on in the immediate company of a large batch of others, all of whom are treated alike, and required to do the same thing together."[215] The CAF is an organization that revolves around routines. In the Navy, the Ships Standing Orders has a whole section entitled *Routine*, dedicated to the routine of the ship's company, alongside and at sea. The document instructs members when to perform cleaning stations, eat, when you are on-watch, when you are off-watch, and when you can rest.[216]

The second characteristic is binary management, achieved when, "Two different social and cultural worlds develop, jogging alongside each other with points of official contact, but little mutual penetration."[217] This describes a class system that exists in the CAF, most notably between the officers and the non-commissioned members. One could argue, however, that a third class exists with the non-Commissioned officers. Most bases and ship's divide their messes, places to drink, eat and socialize, along these three

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[214] J. Wade, "Wartime Housing Limited, 1941 - 1947: Canadian Housing Policy at the Crossroads," *Urban History Review / Revue d'histoire urbaine*, 15 (1), (1986): 41. https://doi.org/10.7202/1018892ar

[215] K. Jones and A. J. Fowles, *'Goffman: the radical', in Ideas on Institutions* (London: Routledge & Kegan Paul, 1984), 12–16.

[216] Department of National Defence, *Ship's Standing Orders,* version AL7 (Ottawa: DND), Chapter 5.

[217] Erving Goffman, *Asylums: Essays on the Social …*, 9.

groupings. The CAF therefore exhibits ternary management through its social divisions between officers, non-commissioned officers and non-commissioned members.

The third characteristic is the adaptation of the inmate role, a process of disculturation where the members lose their unique characteristics that define them as an individual. This is achieved when individuals have "been reduced from a person with many roles to a cipher with one: the 'inmate role'."[218] The military has standardized rules for dress and deportment, providing uniforms and limiting hairstyles, jewelry and other accessories used to express a person's individualism. The goal of basic training is to turn citizens into soldiers by developing a military state of mind and behavior.[219] Military standards and basic training are likely a process of disculturation, designed to create ciphers with one role: soldier.

The final characteristic is the institutional perspective, "which denies his individual perspective and validates the institution's existence."[220] The institution uses social events to create a fake sense of community, which reinforces the institution's perspective over an individual's perspective.[221] The CAF runs many social events to strengthen bonds between serving members. All CAF members are required to belong to a mess, a drinking and eating establishment on base or on ship.[222] Awards are given and yearly personal evaluations are influenced by the degree to which CAF members

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[218] K. Jones and A. J. Fowles, *'Goffman: the radical', in ...*, 13.

[219] Department of National Defence, "Basic Military Qualification (BMQ) Joining Instructions," last updated July 2020, https://www.canada.ca/en/department-national-defence/services/benefits-military/education-training/establishments/canadian-forces-training-development-centre/basic-military-qualification-bmq-joining-instructions.html

[220] K. Jones and A. J. Fowles, *'Goffman: the radical', in ...*, 16.

[221] *Ibid*.

[222] Department of National Defence, *PSP Policy Manual*, Amendment 001/21 (Ottawa: DND, 2021), Part 9 Messes. https://www.cfmws.com/en/AboutUs/Library/PoliciesandRegulations/PSP/Documents/PSP-Policy-Manual_En_Rev-20Jan21.pdf

organize and participate in social events such as mess dinners, gala balls, fundraisers and mess committees.[223] The CAF promotes many social events, which reinforce the institution's perspective. The CAF is likely a Total Institution as it fulfills the four main characteristics: batch living, binary management, the inmate role, and the institutional perspective.

Changes in policy are affecting the CAF's ability to remain a total institution. During the early 90's the CAF and GOC decided to encourage military families to live off base and integrate into the local communities. Since then, only 15% of CAF members and their families live on bases.[224] Living off base allows members to customize their homes, expressing some individuality, which is contrary to the inmate role characteristic of an institution. Housing policies have forced members to venture outside the institution, and senior leaders will be weary to adopt any other practices which may further affect the CAF's ability to remain a total institution.

Telecommuting is the antithesis to the total institution. Working remotely, anywhere in Canada, reduces a CAF member's interaction with military culture. This affects their sense of community, which is required to project the institution's perspective. The conformity to dress and deportment, which removes individualism as required by the inmate role, is eliminated when CAF members can perform their job at home wearing pajamas and fuzzy bunny slippers. The daily routine and batch living ceases to exist as telecommuters work individually from home, and usually abide by their own schedules.

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[223] Department of National Defence, *Canadian Forces Personnel Appraisal System Help File,* Version 2009.0.17.

[224] Department of National Defence, Canadian Armed Forces Ombudsman, "Special Report …, "7.

The CAF would no longer have the four main characteristics of a total institution if it adopted widespread telecommuting.

The Canadian Forces has historically been a total institution, but recent policies are affecting its ability to remain a total institution. The benefits of telecommuting are contrary to the four characteristics required of a total institution. The adaptation of telecommuting by the CAF is therefore problematic as being a total institution is a powerful tool for inculcating and maintaining CAF culture amongst its members. Culture is of the utmost importance to the CAF as lapses or perversions of the culture has brought into question the credibility of the organization. The widespread adaptation of telecommuting threatens the inculcation of military culture and the ability for senior officers to lead the institution.

Propensity to Telecommute

Telecommuting is not possible for all positions in the military and many factors need to be considered and mitigated when determining what positions should telecommute. Dingel and Neiman, researchers at the National Bureau of Economics Research in the U.S., have developed eight criteria used to identify occupations that cannot be performed at home.[225] Using this research, Statistics Canada estimates that only 40% of Canadians in the workforce have employment amenable to telecommuting.[226] Given the 90 different career choices listed on the 2020 CAF recruiting website, representing a broad range of employment from infantry soldier to doctor, the makeup of CAF professions should be similar to those in Canadian society. Using this assumption

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[225] Jonathan I. Dingel and Brent Neiman, "How Many Jobs Can be Done at Home?" (Working Paper 26948, National Bureau of Economic Research, Cambridge, MA, April 2020), 3. https://www.nber.org/system/files/working_papers/w26948/w26948.pdf

[226] Zechuan Deng, Rene Morissette and Derek Messacar, " Running the economy remotely …"

40% of the current 68,000 Regular Force, 27,200 members, could effectively work remotely. While the CAF is similar to businesses, there are some unique characteristics regarding sensitive material, cybersecurity and universality of service that may be incompatible with telecommuting.

Problem #3 – Sensitive Information and Cybersecurity

The military has unique requirements that may lower the percentage of military members who can telecommute. The Security of Information Act requires the CAF to safeguard sensitive material, which if communicated to an adversary could potentially cause harm to the interests of Canada.[227] The nature of many professions and specific jobs within the military such as intelligence officer and cyber operators have a requirement to work with sensitive material. They require secure networks and computers to handle the information and secure locations to store it. Installing this infrastructure in individual's homes is likely cost prohibitive, reducing the number of members who can telecommute.

There is additional cybersecurity risk for CAF members working from home. Scott Watnik, a lawyer specializing in cybersecurity, notes that cybercrime is on the rise due to the global pandemic and telecommuting. "People are distracted when they work from home and with concerns over the pandemic and they are lowering their cybersecurity defences."[228] A reduction in cyber defence from telecommuting is problematic as sophisticated cyber-attacks from China and Russia on government institutions are increasing. On 4 March 2020, a cyber-attack, potentially targeting a state

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[227] Canada, Security of Information Act, 1985.
[228] Hill, Ginger. "Cybercriminals Target Remote Workers during Crisis." *Security Systems News* 23, no. 5 (2020): 9-9.

election, was detected by Australian authorities. The attack was part of a massive global operation by suspected Chinese hackers against Microsoft software, which includes Microsoft Teams, a popular online collaborative tool for telecommuters.[229] The BBC reported cyber-attacks targeting the 2020 US election by China, Iran and Russia.[230] The CBC reported a 4 year campaign by Advanced Persistent Threat 10, a group of hackers working on behalf of China's main intelligence agency, to gain access and steal information from multiple countries, including Canada.[231] Telecommuting increases the risk to the CAF's sensitive information by cyber-attacks from adversarial nations. Scott Watnik warns, "Once a cybercriminal hacks into even ONE employees' computer, from there, that cybercriminal, he or she, can infiltrate the business' entire network."[232] The increased threat of cyberattacks from telecommuting will likely lower the number of positions that can telecommute in the CAF.

Problem # 4 - Universality of Service

All CAF members are soldiers first and this creates an issue for telecommuting. The principal of universality of service requires all members of the CAF to be available, fit and deployable for general operational duties.[233] There are 11 skillsets common to all elements that must be maintained at all times. Skills include fire and maintain a personal weapon, conduct drill, and conduct individual Nuclear Biological and Chemical (NBC)

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[229] Andrew Greene, "China suspected of cyber attack on Western Australia's Parliament during state election," *ABC News*, 17 March 2021, https://www.abc.net.au/news/2021-03-17/wa-parliament-targeted-cyber-attack/13253926

[230] BBC News, "Russia, China and Iran Hackers target Trump and Biden, Microsoft says," 11 September 2020, https://www.bbc.com/news/world-us-canada-54110457

[231] Jim Bronskill, "Canada among targets of alleged Chinese hacking campaign," *CBC News*, 20 December 2018. https://www.cbc.ca/news/politics/canada-among-china-hacking-victims-1.4954608

[232] Hill, Ginger. "Cybercriminals Target Remote Workers during Crisis." *Security Systems News* 23, no. 5 (2020): 9-9.

[233] Department of National Defence, *Defence Administrative Orders and Directives: 5023-0, Universality of Service, (*Ottawa: DND, 2018).

drills.[234] The maintenance of these skills require regular practice and access to specific equipment, firing ranges and trainers. Many of the items required for training are located on bases but are not suitable to be held by individuals in their own homes. This barrier could be overcome but would require a significant amount of time, travel and coordination for members to proceed to bases to hone their skills, but the additional travel and time away from home would defeat some of the work-life balance and green benefits of telecommuting.

Not all professions can telecommute based on their workplace requirements. The diverse trades offered by the CAF is likely representative of the Canadian economy and therefore 40% of the force, like the Canadian workforce, should be amenable to remote work. The CAF, however, has some unique requirements for leadership that may be difficult to achieve when telecommuting. The CAF will need to determine how to provide specific infrastructure and equipment, generally not suitable for the home office, to handle information and the maintain skills of telecommuters. Finally, the CAF will likely require a mitigation strategy for the increased risk of cyber attacks on telecommuters by foreign actors. IF these issues are resolved, the CAF will likely be able to achieve a 40% telecommuting adoption rate.

Telecommuting Recommendations: CAF 2021-2026

The CAF is facing numerous challenges in recruiting, retention, business continuity and achieving environmental goals. Telecommuting provides potential solutions to many of these challenges but could affect other CAF requirements to generate leaders, inculcate CAF culture, protect information from cyberattacks and

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[234] Department of National Defence, *Defence Administrative Orders and Directives: 5023-1, Minimum Operational Standards Related to Universality of Service* (Ottawa: DND, 2018).

maintain universality of service. The following recommendations provide a means of achieving many of the benefits of telecommuting while mitigating the CAF specific problems. The 5 year timeline for implementation is critical for the CAF to achieve its recruiting goals for women in 2026, and recruit Generation Z while it is currently experiencing high unemployment. The 5 year timeline provides a 4 year buffer for the 2030 GHG emission goals set by the federal government. Finally, attrition is a current problem and the sooner the CAF can reduce the number of military moves for a CAF family, the more experienced members the CAF will likely retain.

Recommendation #1 – Adoption of Satellite Offices

The CAF can shape its organizational structure and disposition of forces to receive many of the benefits of telecommuting while mitigating many of the drawbacks. At the beginning of the century, co-working or office sharing arrangements gained popularity. This business model rents furnished office space to the self-employed or telecommuters. Adam Neumann, the co-founder of WeWork, attributed the rapid success of his co-working business to the desire for workers, who would otherwise work at home, to belong to a community.[235] Shimar and Salomon predicted the growing success of satellite or neighborhood work centers in 1986, like WeWork, due to their ability to provide the best combination of benefits from working at and outside of the home.[236] In a similar fashion to WeWork, using satellite offices could provide the CAF with the best

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[235] Rebecca Aydin, "The history of WeWork — from its first office in a SoHo building to pushing out CEO and cofounder Adam Neumann," *Business Insider*, 22 October 2019, https://www.businessinsider.com/wework-ipo-we-company-history-founder-story-timeline-adam-neumann-2019-8

[236] Boas Shimar and Ilan Salomon, "Work-at-Home and the Quality …, 462,463.

combination of telecommuting benefits while mitigating the drawbacks unique to telecommuting in the CAF.

Recommendation #2 – Transformation of Reserve Units into Satellite Offices

The CAF already has the infrastructure required to establish satellite workspaces across the country. Reserve units are located in most major metropolitan areas, and 97% of Canadians can commute to one within 45 minutes.[237] These buildings contain the office spaces, computers and networks required for co-working. Reserve units maintain a small staff during the normal workweek and are designed to accommodate an entire unit of reservists on parade nights, usually one night per week. Using these reserve units in combination with telecommuting from home for part of the workweek would allow them to service a greater number of CAF telecommuters within their geographical area.

Recommendation #3 – Adoption of Reverse Matrix Organizational Structure

Allowing CAF members the freedom to choose their trade and place of residence presents an organization structure challenge. The military arguably uses a functional organization. A functional organization structure groups employees by the function they perform such as human resources, marketing or research and development.[238] In the CAF units are grouped by their primary function: An infantry unit is manned by infantry soldiers who take and hold ground, an armored regiment by armored soldiers who specialize in manoeuver warfare, and an artillery regiment by gunners who specialize in indirect fire. For these units, the administrative and operational chain of command are

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[237] Department of National Defence, *Strong, Secured, Engaged: Canada's Defence Policy …*, 67.

[238] Patrick Gleeson, "Benefits & Disadvantages of a Functional Organizational Structure," *Small Business Chronicles*, last updated 25 January 2019, https://smallbusiness.chron.com/benefits-disadvantages-functional-organizational-structure-11944.html

one in the same. A platoon commander is responsible for their platoon's conduct in the field and in garrison.

Using Satellite offices to telecommute will result in personnel with different functions working out of the same unit. This will require two separate chains of command, one for garrison at the local reserve unit and a second belonging to the parent unit, such as an infantry unit. The separate garrison/operational relationship resembles a matrix organizational structure in business, however, in reverse. A matrix is a combination of a functional organization and a project where members from a variety of functional organizations are grouped together to carry out a project.[239] Conversely, the reverse matrix would assume a variety of functions residing in a reserve unit, which are seconded to a functional organization to carry out their function. As an example, individual infanteers would reside in reserve units throughout Canada but functionally would belong to the Royal Canadian Regiment. When the Regiment is required to deploy on operations or training, it would amass its personnel in a single location and deploy. Allowing CAF members the flexibility to choose their trade and residence requires two chains of command, one for garrison and one for operations, a reverse matrix.

While the proposed reverse matrix enables the satellite offices, the organizational structure is less than desirable. A functional organization benefits from the concentration of the same trades, which creates shared learning amongst the members and is generally considered more efficient than other structures.[240] The reverse matrix disperses the trades

[239] Patrick Gleeson, "Advantages & Disadvantages of Matrix Organizational Structures in Business Organizations," The Small Business Chronical, last updated 28 January 2019, https://smallbusiness.chron.com/advantages-disadvantages-matrix-organizational-structures-business-organizations-26350.html

[240] Management Square, "Functional Organization: The Advantages and The Disadvantages," accessed 20 January 2020, https://www.ma/nagement-square.com/functional-organization/

amongst the reserve units and therefore the organization will not receive the learning or efficiency associated with a functional organization. The reverse matrix retains the drawbacks of a matrix structure, namely the complexity and potential for prioritization conflicts from having two chains of command. [241] The loss of shared learning and the complexity of having two chains of command from a reverse matrix organizational structure are the cost to attain the benefits of telecommuting within the CAF.

Recommendation #4 – Adoption of a Garrison Chain of Command

Using reserve units as satellite offices will help mitigate the impact that remote work has on leading people. To develop leaders within the CAF who can function on the battlefield, junior leaders need to develop their leadership skills. As previously discussed, direct influence uses personal power, which is best achieved through face-to-face communications. A drawback from telecommuting is that it geographically separates leaders from their subordinates, affecting their ability to develop their social capacities of empathy, listening, persuasion and interpersonal skills. These social capacities form part of personal power required by leaders to use direct influence. The use of a garrison chain of command, and working from reserve units a few times a week, will allow junior leaders face-to-face opportunities to develop their social capacities and leadership skills. Providing an administrative chain of command in satellite workspaces will provide junior leaders opportunities to develop their leadership skills thereby mitigating the effects of telecommuting on leading people.

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[241]Patrick Gleeson, "Advantages & Disadvantages of Matrix …"

Recommendation # 5 – Limit Working from Home

Using reserve units as satellite offices will help mitigate the impact of remote work on leading the institution. A significant part of leading the institution revolves around the preservation and inculcation of CAF culture. This has been achieved in the past through the maintenance of the total institution, by having military members and their family live, eat, work and play on a CAF establishment. While the total institution has been dwindling, telecommuting is its antithesis by removing military members from the influence of the institution. Working from satellite offices allows the CAF to maintain, in part, its total institution. The act of putting on a uniform and reporting to a military place of work, even for a few times a week, reminds the telecommuter that they are a soldier, sailor or aviator, reinforcing the inmate role of the total institution. Performing drill and following a routine with other telecommuters at the reserve units reinforces the batch living characteristic of the total institution. Retiring to the individual messes for officers and non-commissioned members, present at most reserve units, reinforces the binary management aspect of a total institution. Telecommuters using reserve units as satellite offices a few times a week, limiting their work from home, will help mitigate the loss of the total institution and CAF culture, preserving a means to leading the institution.

Recommendation #6 – Upgrade Reserve Unit Infrastructure

Using properly equipped reserve units as satellite offices will mitigate risks to maintaining universality of service and data breeches. All CAF members must meet universality of service requirements with a few exceptions. This requires members to maintain the skillsets to perform 11 essential tasks. The influx of Regular Force personnel

working out of reserve units will likely require an increase or upgrade to the infrastructure and equipment to accommodate the increase in use. Cyber-crimes by adversarial nations are on the rise and telecommuters are more susceptible to an attack. Reserve units, with some infrastructure upgrades, could provide the networks, computers, safes and supervision required to reduce the risk of a cyber-attack and safely handle sensitive information. The use of reserve units can provide the equipment necessary for telecommuters to maintain universality of service and safely handle sensitive information.

Summary

The widespread adoption of telecommuting within the CAF is likely to encounter problems, some unique to militaries and the CAF. Telecommuting could present a problem for the generation of leaders through the development of their character traits. Social capacities, a character trait, requires good communication to use empathy, listening, persuasion and interpersonal skills. Personality, the other character trait, requires the leader to be observable to demonstrate integrity, self-assurance, modelling of self-control and effective coping behavior. This presents a problem for the CAF as telecommuting degrades communication and interactions, the medium through which leaders develop character traits.

The maintenance of culture is imperative to the CAF as its degradation has been attributable to infamous events such as the atrocities in Somalia and the actions leading to the requirement for Operation *Honour*. Senior leaders use the characteristics of a Total Institution to inculcate CAF culture and therefore the Total Institution is critical to leading the CAF institution. The CAF maintains the characteristics of a Total Institution

through batch living – the maintenance of military routines by large groups of members; binary management - the maintenance of a class system between officers, non-commissioned officers and non-commissioned members; inmate role – uniformity in appearance; and institutional perspective – social events which reinforce the members role as a soldier. Working remotely through telecommuting is a problem as it allows for flexible individual routines, removes members from the social class system on base, and negates the need for uniformity while at home. Removing members from the military society allows ideas, other than the institutions, to alter their perspective, a problem in maintaining the total institution.

Some CAF positions are required to regularly handle sensitive information and are required by the Security of Information Act to appropriately safeguard that material. This presents a problem as there is an increased risk to the safety of sensitive information from sophisticated cyberattacks. Russia and China have recently been attributed to cyberattacks on elections, telecommunication software, and stealing information from Canadians. Telecommuting is problematic as people are distracted when working from home, lowering their cyber defence, and increasing the risk of a cyberattack.

Universality of service requires the maintenance of 11 skillsets so military personnel are prepared to be deployed on operations. This requires members to perform tasks such as fire and maintain a personal weapon, conduct drill, and conduct Nuclear Biological and Chemical (NBC) drills. Working from home when telecommuting presents a problem as the weapons, ranges and trainers are not suitable for the home office.

Telecommuting provides potential solutions to recruiting, retention, business continuity and greening defence, but the adoption of the workplace arrangement creates its own problems for the CAF. Goals for recruiting and achieving target GHG emissions are time sensitive and retention is an ongoing problem, necessitating the implementation of telecommuting over the next 5 years to achieve the maximum benefits. The research has generated 6 recommendations for implementing telecommuting which mitigate CAF specific problems.

Recommendations:

1. Adoption of Satellite Offices;

2. Transformation of reserve units into satellite offices for regular force members;

3. Adoption of a reverse matrix organization to allow members from different units to parade at the satellite offices;

4. Adoption of a garrison chain of command to allow face-to-face leadership opportunities;

5. Limit working from home so members continue to be inculcated in CAF culture; and

6. Upgrade reserve unit infrastructure to handle secure networks and the increase in personnel.

CONCLUSION

Telecommuting is a powerful tool for recruiting, retention, business continuity and saving the environment. Regardless of how the CAF implements telecommuting, it cannot achieve its diverse goals without including the workplace arrangement in its strategy. Society and the workplace are continuously evolving, an evolution which has potentially increased in speed due to the effects of the COVID-19 Pandemic. In response, many successful businesses have changed their strategy for the workplace, divesting real-estate in favour of telecommuting. The Canadian Armed Forces (CAF) does not have a telecommuting policy nor is the workplace arrangement considered in any of its strategic documents. The Canadian Armed Forces must evolve the workplace alongside society now or risk going extinct.

This research paper sought to determine whether the CAF should adopt telecommuting practices as part of a strategy to evolve the workplace. The focus was to identify ways in which telecommuting could help the CAF achieve its various goals, and the problems the organization would need to overcome in adopting the workplace arrangement. Telecommuting is not a new idea but its widespread adaptation is relatively new, in part due to the COVID-19 Pandemic. As such the research on the benefits and drawbacks of telecommuting revolved around theories from scholarly journal articles that are a few decades old. Since the time of those articles society's preferences and technology have continued to evolve, therefore recent studies were prioritized in applying the theories to the unique nature of the CAF. The COVID-19 Pandemic thrust telecommuting upon the world providing an excess of data. The pandemic, however, is

only a year old at the time of this paper in 2021, requiring the use of media articles and websites to provide contemporary, if not scholarly, research.

Chapter 1 focuses on what is known about telecommuting at the time of this paper. The history of telecommuting covers the birth of the idea in the 1970's from an interview with NASA Engineer Jack Nilles, and the failed attempts of the workplace arrangement to gain popularity in the 80's and 2000's, ending on the current state of adoption due to the pandemic. The theories of the benefits and drawbacks to telecommuting are reviewed and, where possible, studies cited to confirm the theories. The research shows conflicting evidence as many of the aspects of telecommuting provide both a possible benefit and drawback. Telecommuting provides the flexibility to balance work and life, however, it also causes the home and work domains to overlap increasing stress. Studies and history are also conflicting as studies show increases in productivity by telecommuters but businesses have ceased allowing employees to telecommute citing decreases in productivity. Holistically the research suggests that employers and employees need to adapt themselves to receive the benefits of telecommuting and society may now be in a position to do so. The chapter ends on the current state of telecommuting within the DND, noting that the workplace arrangement is offered to civilians but not to CAF members. This chapter provides the key concepts and background information used to assess the benefits and drawbacks for telecommuting and the CAF.

Chapter 2 investigates barriers to recruiting that maybe reduced by telecommuting for three segments of the population. The legal requirements, benefits and the current state of diversity in the CAF are presented and outline the need for the CAF to recruit

Generation Z, visible minorities and women. The research shows Generation Z desires

flexibility and technology, which presents a problem as the CAF is viewed as a rigid

organization, which uses outdated technology. Research from Statistics Canada and Ipsos

Reid Corporation indicate that the rural geographic location of military establishments is

a barrier to the recruitment of visible minorities who are concentrated in large

metropolitan areas, devoid of CAF interaction. Drawing on the work-life benefits

associated with telecommuting developed in chapter 1, women prefer flexibility at work

to better manage their responsibilities at work and at home. The rigid persona of the

CAF, as previously mentioned, likely presents a barrier to life in the military for women.

Telecommuting is presented as a partial solution to these barriers as it provides

geographic flexibility and uses modern technology, strengthening the argument that

telecommuting could form part of the CAF recruiting strategy.

      Chapter 3 explores the effects of geographical moves of military families and

links them to CAF retention issues. Analysis of the CAF Exit Survey connects

geographical instability to the early release of CAF members from the military. The CAF

Ombudsman in figure 3.1 lists the effects that a military move has on the quality of life

for CAF families. The research on these effects highlights the struggles and stresses from

a move on the mental well-being, finances, healthcare and education, of CAF families.

While the effects of a move appear universal for families, research suggests that any

problems or stresses from special needs the family might have will be exasperated by the

move, which will greatly impact their quality of life. The research supports the effects in

figure 3.1 and the necessity to adopt telecommuting as a way to reduce the number of

military moves in order to retain experienced CAF personnel.

Chapter 4 focuses on two general requirements of the DND as a federal institution, only related by their ability to benefit from telecommuting. The first is business continuity, the process of ensuring an organization can continue to function should a catastrophic event occur. The chapter reviews the legal requirements as well as the policies requiring business continuity planning. Research shows that the CAF experienced interruptions in its services due to severe weather events in Ottawa, where one fifth of the department resides, and due to the restrictions imposed by the COVID-19 Pandemic. Telecommuting provides a solution to the former problem by dispersing the workforce while maintaining a command structure, reducing the effects of a localized event. Telecommuting, in part, was the solution to the latter problem as Operation *Laser* ordered military members to stay home in order to protect the force. The second section investigates the link between the Trudeau governments' environmental goals, the DND's plan to support those goals, and telecommuting as a means of achieving them. The research indicates that the burning of fossil fuels for transportation represents a significant portion of greenhouse gas (GHG) emissions and that telecommuting 1 day a week could be sufficient to achieve the government's planned reduction in the transportation sector. Specifically for the federal government, the largest contributor to GHG emissions comes from heating buildings with natural gas. The CAF has a costly plan to renovate its buildings to increase efficiency, however telecommuting could be used to reduce office space requirements, negating the need for buildings and costly renovations altogether. While seemingly unrelated, telecommuting could provide solutions for a variety of government requirements.

Chapter 5 investigates problems the CAF will likely encounter if it were to adopt telecommuting and provides recommendations on how to implement telecommuting in a manner that mitigates the aforementioned problems. Telecommuting allows for a dispersed workforce, which draws parallels to the CAF's maintenance of a Reserve Force, spread out across Canada. The recommended solutions for telecommuting, therefore, will build upon the manner in which the Reserve Force functions.

Problem #1 – Leading People. CAF leadership doctrine provides a theory that the direct influence, used to effectively lead people, comes from personal power derived from character traits. These traits are divided into social capacities and personality. Social capacities require communication with subordinates while the leader's personality needs to be observed by subordinates. This creates a problem as telecommuting degrades communication and interaction, a drawback noted in Chapter 1. Working remotely will likely make it more difficult for current leaders to lead, and affect junior leaders from developing their leadership skills.

Problem #2 – Leading the Total Institution. CAF doctrine notes that maintaining culture is important to leading the institution. Comparing the CAF to Goffman's characteristics of a *Total Institution*, the CAF meets the four criteria: batch living through collective routines, binanry management through maintaining a separate officer and non-commissioned member classes; the inmate role through uniformity in appearance; and institutional perspective through the promotion of a military community. As a Total Institution the CAF if able to effectively impart its culture on its members. Applying the benefits and drawbacks of telecommuting, identified in Chapter 1, to the four characteristics suggests telecommuting is the antithesis to maintaining a Total Institution.

Working remotely provides flexibility in routine, reduces the exposure to the binary class system, does not require uniformity in appearance, and removes members from the military social community, contrary to the 4 characteristics of a Total Institution. The CAF is likely trying to remain a Total Institution to impart CAF culture, and therefore telecommuting poses a problem for senior leadership.

Problem #3 – Sensitive Information and Cybersecurity. Research shows that cyberattacks by adversarial nations are increasing, targeting Canadians and governments. Additionally it suggests that telecommuters are distracted when working from home, which increases the risk of a cyberattacks. This is a problem for the CAF as the Security of Information Act requires members to safeguard sensitive material and often requires special networks and infrastructure. These requirements and the risk of cyberattacks could significantly reduce the number of CAF members who could telecommute.

Problem # 4 - Universality of Service. A unique requirement of CAF members is to maintain a state of preparedness for operations, known as universality of service. CAF policy outlines the skillsets that members must maintain, to include weapons handling, weapons firing and Nuclear Chemical Biological drills. This creates a problem for remote workers as these skillsets will likely require access to weapons, ranges and trainers, located on bases, and not suitable for the home office. Transportation to bases provides a potential solution, however, this would negate many of the individual benefits of telecommuting noted in Chapter 1 and potentially the environmental benefits noted in Chapter 4.

Recommendations

Recommendation #1 – Adoption of Satellite Offices. Using satellite office space provides the best combination of the benefits from telecommuting and the associated drawbacks. Telecommuters will have the flexibility to work where, and to a lesser extent when, they want but will retain the social aspects of having a workplace.

Recommendation #2 – Transformation of Reserve Units into Satellite Offices. Using reserve units negates the time and cost of building new infrastructure, allowing a rapid and cost effective means of implementing satellite offices. The units will provide coverage for the majority of Canadians as 97% of the population is within commuting distance to one.

Recommendation #3 – Adoption of a Reverse Matrix Organization. The organizational structure will allow for individual trades, such as infanteer, to be dispersed amongst the reserve units, and brought together to perform a function such as deploy as an infantry unit.

Recommendation #4 – Adoption of a Garrison Chain of Command. The two chains of command will provide face-to-face opportunities for junior leaders to work on leading people at the reserve units, while the functional chain exists for training and operations.

Recommendation #5 – Limitations on Working from Home. Reporting to a military place of work a few times a week will help preserve the characteristics of the total institution, which provides a means of maintaining CAF culture and leading the institution. This will also support recommendation #4 by providing face-to-face interactions for junior leaders.

Recommendation #6 – Upgrade Reserve Unit Infrastructure. The increase in trades and personnel working out of reserve units will likely require an upgrade to their

infrastructure and equipment to maintain universality of service skillsets. Furthermore secure networks and workspaces will be required for those handling sensitive information and to reduce the risk of cyberattacks

Further Research

This research paper was limited to the potential benefits and drawbacks of telecommuting within the CAF. The paper recommends a plausible means of implementing telecommuting to receive the benefits while negating the drawbacks. To progress the implementation of telecommuting within the CAF, further research will be required. Regardless of the research, the band-aide associated with remote work has been ripped off due to COVD-19, therefore the research and implementation of telecommuting is time sensitive. The momentum to adopt telecommuting in the CAF will likely be lost if the idea is not progressed within a year. Recommendations for further research are as follows:

Propensity to telecommute – Assistant Deputy Minister Personnel

Approximately 40% of the Canadian workforce has employment amenable to telecommuting. Further research is required to identify specific requirements to assess the feasibility of military trades and positions being classified as telecommuting capable.

The business case for telecommuting – Assistant Deputy Minister Finance

Nothing in the government can be accomplished without the appropriate allocation of funds. As such, research is required to build a business case for the cost/savings associated with telecommuting. This could include the savings from forgone military moves and overhead costs on office space, and costs associated with improvements to reserve units and equipment required for telecommuting.

The policy to govern telecommuters in the CAF – Assistant Deputy Minister Policy

As an evolution of the workplace, new processes and policies will need to be developed or amended to accommodate telecommuters. The ability to telecommute could be viewed as a benefit requiring non-telecommuters to receive equivalent compensation. Evaluations of performance management may need to be amended as telecommuters cannot be directly observed while non-telecommuters can be observed.

Final Words

The Canadian Armed Forces cannot achieve its diverse goals without telecommuting. The rigid organization is failing to be an employer of choice, unable to meet its recruiting targets for visible minorities or women. The force is losing experienced members as military families are tired of finding new doctors, new specialists, new employment every three years. Tornadoes in Ottawa shut down the city and the Department of National Defence ground to a halt for a few days. The Canadian Armed Forces has the distinction of being the largest producer of greenhouse gases in the federal government. All these problems have one thing in common: telecommuting can provide a solution. Now is the time to evolve the workplace or risk going extinct.

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