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Canada

Financial Security Among Veterans in Canada

Mary Beth MacLean MA, Health Economist, PhD candidate Aging and Health

Teresa Pound, Manager Data and Analytics

Jill Sweet MSc (Biostatistics), Senior Statistician

Linda VanTil DVM, MSc (Epidemiology), Epidemiologist

Research Directorate, Veterans Affairs Canada, Charlottetown

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Executive Summary

Introduction

Financial security in the Well-being Surveillance Framework includes two indicators: satisfaction with finances and the low income rate. The low income rate remained steady over the last three cycles of the Life After Service Studies (LASS). However, satisfaction with finances declined from 75% in 2010 to 69% in 2016. This raises questions as to whether the framework includes the right indicators and why satisfaction with finances declined. This study examined: (1) measures of financial security in Canada; (2) the literature on the importance of financial satisfaction to global life satisfaction and factors associated with financial satisfaction; and (3) financial satisfaction among Canadian Armed Forces Veterans in LASS. The aim is to inform further research and policy to improve financial security among Veterans.

Methods

Statistics Canada, DND and VAC quantitative sources (surveys and administrative data) were reviewed for indicators of financial security. The frequency of use of low income and satisfaction with finances was examined. Factors associated with satisfaction with life and finances identified in the literature were examined against data available in LASS for Regular Force Veterans released since 1998. Possible explanations for the decline in satisfaction rates were explored.

Results

Fifteen data sources containing indicators of financial security were identified including eight which identified CAF Veterans (6) or members (2). Most of these 15 sources collected income indicators. Low income/poverty indicators appeared in 13 and financial satisfaction indicators appeared in six.

Financial satisfaction was found to be strongly related to life satisfaction. However, the association between income and financial satisfaction is quite weak. Other important factors include education, debt, savings, employment, health and financial literacy.

Lower levels of financial satisfaction among Veterans were related to lower education, divorce, unemployment, attending school, dissatisfaction with work and poor health. These factors were similar to those found in the literature. Declines in satisfaction rates were most significant among middle-income Veterans and those attending school.

Conclusion

There is support for the continued use of both satisfaction with finances and low income rate in the measurement of financial security. Satisfaction with finances is important to life satisfaction and is related to several factors including income, education, debt, savings, employment, health and financial literacy. Interventions to improve financial security among Veterans may involve these factors, however, further research is needed.

Sommaire

Introduction

Le cadre de surveillance du bien-être comprend deux indicateurs liés à la sécurité financière : la satisfaction à l'égard des finances et le taux de faible revenu. Le taux de faible revenu est resté stable au cours des trois derniers cycles de l'Étude sur la vie après le service militaire (EVASM). Cependant, la satisfaction à l'égard des finances a diminué pendant cette période, passant de 75 % en 2010 à 69 % en 2016. Cette situation soulève des questions à savoir si le cadre comprend les bons indicateurs et pourquoi la satisfaction à l'égard des finances a diminué. Cette étude visait à examiner : 1) les mesures de la sécurité financière au Canada; 2) la littérature sur l'importance de la satisfaction financière pour la satisfaction globale à l'égard de la vie, ainsi que les facteurs associés à la satisfaction financière; et 3) la satisfaction financière chez les vétérans des Forces armées canadiennes (FAC) ayant participé à l'EVASM. L'objectif consiste à orienter les recherches et politiques futures visant à améliorer la sécurité financière des vétérans.

Méthodologie

Les sources quantitatives de Statistique Canada, du ministère de la Défense nationale (MDN) et d'Anciens Combattants Canada (ACC) (sondages et données administratives) ont été examinées afin de relever les indicateurs de la sécurité financière. La fréquence d'utilisation du taux de faible revenu et de satisfaction à l'égard des finances a été examinée. Les facteurs associés à la satisfaction à l'égard de la vie et des finances qui ont été relevés dans la littérature ont été examinés en fonction des données disponibles de l'EVASM portant sur les vétérans de la Force régulière libérés depuis 1998. Enfin, les raisons pouvant expliquer la diminution des taux de satisfaction ont été étudiées.

Résultats

Quinze (15) sources de données contenant des indicateurs de la sécurité financière ont été relevées, dont huit étaient associées aux vétérans (6) ou à des militaires (2) des FAC. La majorité de ces quinze sources ont permis de recueillir des indicateurs de revenu. Des indicateurs de faible revenu ou de pauvreté ont été relevés dans treize (13) de ces sources et des indicateurs de la satisfaction financière ont été relevés dans six (6) sources.

Il a été établi que la satisfaction financière était étroitement liée à la satisfaction à l'égard de la vie. Toutefois, le lien entre le revenu et la satisfaction financière est assez faible. Parmi les autres facteurs importants liés à la satisfaction financière, mentionnons l'éducation, la dette, l'épargne, l'emploi, la santé et la littératie financière.

Les niveaux plus faibles de satisfaction financière des vétérans sont associés à un faible niveau de scolarité, au divorce, au chômage, à un faible taux de fréquentation scolaire, à l'insatisfaction au travail et à une santé précaire. Ces facteurs étaient semblables à ceux

relevés dans la littérature. La diminution des taux de satisfaction était plus importante chez les vétérans à revenu moyen et ceux qui sont aux études.

Conclusion

On estime que la satisfaction à l'égard des finances et le taux de faible revenu devraient continuer d'être utilisés pour mesurer la sécurité financière. La satisfaction à l'égard des finances est étroitement liée à la satisfaction à l'égard de la vie, et est également associée à plusieurs autres facteurs, notamment le revenu, l'éducation, la dette, l'épargne, l'emploi, la santé et la littératie financière. Les mesures visant à améliorer la sécurité financière des vétérans peuvent tenir compte de ces facteurs, mais des recherches plus poussées sont nécessaires.

Introduction

VAC's well-being surveillance framework includes two indicators of financial security: low income and satisfaction with finances (VAC, 2017). Low income is a relative measure rather than an absolute measure of income while satisfaction with finances captures self-perceived aspects of financial security. Both types of measures are considered important in measuring overall financial security (Joe and Grable, 2004).

In LASS 2016, the rate of low income among Veterans (4%) remained similar to the rate in 2010 and 2013 and again well below that of Canadians in general (4% compared to 15% in 2016). However, satisfaction with finances declined from 75% and 74% in 2010 and 2013 respectively, to 69% in 2016. Those more recently released (2012 to 2015) had both higher rates of low income and lower rates of satisfaction with finances (VanTil et al, 2018).

Analysis of factors found to be associated with work satisfaction among Veterans found a strong association between work satisfaction and financial satisfaction (MacLean et al., 2018). This study also highlighted the importance of accounting for rank, as work satisfaction rates were highest among officers and lowest among privates and cadets. After controlling for several factors, only satisfaction with finances was associated with work satisfaction for NCMs, privates, and cadets. The author suggested that being ill prepared financially may be causing some Veterans to take poor quality jobs to make ends meet or alternatively, satisfaction with finances may be measuring job quality; that is, job security, demands, and control.

Given the importance of satisfaction with finances to work satisfaction among Veterans, the recent decline in satisfaction with finances and limited research on satisfaction with finances, this study examined: (1) measures of financial security in Canada; (2) the literature on the importance of financial satisfaction to global life satisfaction and factors associated with financial satisfaction; and (3) financial satisfaction among Canadian Armed Forces Veterans in LASS 2016. The aim is to inform further research including the data collection plan for LASS and analysis of other data sources that include Veterans and inform policy to improve financial security among Veterans.

Method

Fifteen different quantitative sources of financial security indicators were identified in Canada. The frequency of use of low income and satisfaction with finances (two indicators currently used by VAC) were examined as well as other measures of financial security was examined. Factors associated with satisfaction with life and finances identified in the literature were examined against data available in LASS for Regular Force Veterans released since 1998 and possible explanations for the decline in satisfaction rates were explored.

Results

Measures of Financial Security

Indicators of financial security in Canada is collected through various sources including the census, various household surveys and tax data. Fifteen different sources have been described (see Appendix A). Veterans are identified in six of these sources: the Life After Service Survey (LASS); the Life After Service Income Linkage (LASIL); the CAF Transition Well-being Survey (CAFTWS); the Canadian Longitudinal Survey on Aging (CLSA); the Canadian Survey on Disability (CSD); and the Canadian Armed Forces Members and Veterans Mental Health Follow-up Survey (CAFVMHS)¹. There are two member surveys, Your Say (YS) and the Member/Family Survey on Finances (MMFFS), within DND that cover finances as well. Statistics Canada data sources include the Census, the Canadian Community Health Survey (CCHS), the General Social Survey (GSS), the Canadian Income Survey (CIS)², the Canadian Financial Capability Survey (CFCS)³, the Tax Family File (T1FF)⁴ and the Survey of Financial Security (SFS)⁵.

Most of these 15 sources collect both self-reported perceptions of financial security and actual income indicators. While there seems to be consensus that both types of measures are important and almost all sources measure total household and personal income there is quite a bit of variability in the other types of indicators being used. Satisfaction with finances appears in six sources (LASS, the CAFTWS, the CAFVMHS, Your Say, the MMFFS and the GSS). All but one uses a five item response categories from very satisfied to very dissatisfied. The GSS includes a 10 point scale. Low income or poverty measures are included in 13 of the 15 sources. There are two separate measures though: one Low Income Measure (LIM) which is based on household income and family size found (or can be derived) in 11 of the 15 sources and two ask about perceptions of ability to meet basic needs.

Veteran Sources

There are six sources of data on financial security that include Veterans: LASS; IL; CAFTWS; CLSA; CSD and CAFVMHS. The two indicators included in the well-being surveillance framework are included in most of these sources. Satisfaction with finances was included in three of the six data sources (LASS, CAFTWS and CAFVMHS) and the low income measure (LIM) was measured or can be measured using four (LASS, LASIL, CSD, CAFVMHS) of the six sources. The CAFTWS and the CLSA ask about ability to meet basic needs.

¹ <https://www.statcan.gc.ca/eng/survey/household/5084>

² <https://www150.statcan.gc.ca/n1/daily-quotidien/180313/dq180313a-eng.htm?indid=11361-1&indgeo=0>

³ <https://www.canada.ca/content/dam/canada/financial-consumer-agency/migration/eng/resources/researchsurveys/documents/managing-money-key-findings.pdf>

⁴ <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110019101>

⁵ <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2620>

Still-serving Member Sources

There are two sources of data on financial security that include still-serving Members: YS and MMFFS. Satisfaction with finances was included in both of these sources. YS does not measure low income but MMFFS does collect household income and possibly household size allowing for LIM to be calculated. The MMFFS also includes a wide range of measures of financial security including housing ownership, debt and knowledge of financial services available to them.

Canadian General Population

There are seven main sources of indicators of finances produced by Statistics Canada; the Census, CCHS, GSS, CIS, CFCS, T1FF and SFS. Satisfaction with finances was previously included in the GSS but is no longer measured. Satisfaction with life is measured in both the GSS and the CCHS. Satisfaction with life was recently examined by Statistics Canada (Bonikowska et al, 2013). The authors concluded that self-assessed life satisfaction reports are consistently informative measures of life experiences. They also suggested that consideration be given to a return to life satisfaction by domain questions previously included in the 2003, 2005, and 2006 GSS which asks about satisfaction with finances, job or main activity and other domains of life. Six of the seven data sources for the Canadian general population measured or allowed for the measurement of LIM.

Literature Review

Various studies have found that subjective financial satisfaction is an important determinant of life satisfaction (Plagnol, 2011; Gerrans, Speelman & Campitelli, 2014; Medgyesi & Zolyomi, 2016). In fact, among eight domains of satisfaction, financial satisfaction has been found to be the most strongly correlated with life satisfaction (Medgyesi & Zolyomi, 2016). While satisfaction with finances appears to be positively related to life satisfaction, the relationship between income and life satisfaction is more complicated. Income and wealth appears to have very little to do with life satisfaction, especially for middle- and upper-class individuals in wealthy countries (Diener & Biswas-Diener, 2002). In fact, for these individuals, earning a high income has little impact on well-being (Diener and Biswas-Diener, 2002). What appears to be important in determining well-being is perceived financial situation, mastery (Johnson & Krueger, 2006) and the ability to attain life goals (Howell, Kurai & Tam, 2013). The literature has been categorized by determining factor in table 1 and further details are available in Appendix B.

For the relatively poor, income comparisons appear to be important in satisfaction with life. Ferrer-i-Carbonell (2005) examined income and relative income in relation to well-being. This study found that income and the income of the reference group have an impact on well-being. However, comparisons are mostly “upward”. That is, poorer individual’s well-being is negatively influenced by the fact that their income is lower than that of the reference group, while richer individuals do not get happier from having incomes above the average. Later, Brown and Gray 2016 looked at a more holistic

picture of household finances by including measures of wealth and confirmed the effect of asymmetric upward comparisons.

Many demographics factors have been included in attempts to explain satisfaction with finances. Hsieh (2001) found that in addition to age and income, being married (compared with people who are never married), holding a bachelor's degree (compared with people with a less than high school education), working status, attendance at religious services, living in a metropolitan area, (perceived) health, living in poverty, and inflation have significant effects on financial satisfaction. After controlling for multiple factors age, marital status, and living situation were still found to be related to financial satisfaction but the relationship to gender, race and education were either marginal or insignificant. Divorce, having a college diploma (compared with high school diploma) and living in a metropolitan areas were found to have a negative effect on financial satisfaction.

Satisfaction with finances has been found to be u-shaped with age (Joo & Gable, 2004; Vera-Toscano et al., 2006; Hansen et al., 2008; Pagnol, 2011; Ryan, 2012 ; Medgyesi & Zolyomi, 2016). High at young ages and then declining into middle ages and then rising again into older ages (65+). This has been termed the “aging paradox”, as the trend is opposite to income. However, Plagnol (2011) found this increasing satisfaction with older ages was at least in part explained by wealth and assets.

However, demographic factors are not always directly related to satisfaction with finances. Joo and Grable (2004) examined direct and indirect determinants of financial satisfaction. They found that demographic and socioeconomic factors have an indirect relationship with financial satisfaction (Joo & Grable, 2004). Instead they found financial stress to have a significant direct effect on satisfaction with finances.

Income has been found to be positively correlated with financial satisfaction. However the association is quite weak; explaining less than half of the variation in satisfaction with finances (Hansen et al., 2008; Johnson & Krueger, 2006). Also, no relationship was found for females between income and satisfaction with finances but men had higher financial satisfaction when they had higher incomes (Zyphur et al., 2015). Therefore, many authors have looked to other factors to explain satisfaction with finances.

Besides income and income comparisons wealth, assets and debt can also be important in addition to income. Joo and Gable (2004) found that solvency or net wealth is directly and indirectly (through financial stress) related to financial satisfaction. This same study found home ownership to be indirectly related to financial satisfaction. Home ownership increases solvency which is positively related to financial satisfaction but also increases financial stress level which is negatively related to financial satisfaction. Hansen et al, 2008 found that greater assets and less debt explained much of the higher financial satisfaction at older ages despite lower incomes. Plagnol, 2011 added to this research by determining that it is not net wealth that is important but

assets and debt separately. Gerrans, Speelman and Campitelli (2014) also found that wealth, assets and debt were important to financial satisfaction.

Several employment related factors have been found to be associated with satisfaction with finances including being employed, job satisfaction, unemployment and retirement. Being employed has been found to be positively related to satisfaction with finances (Hira & Mugenda, 1999; Hsieh, 2001; Joo & Gable, 2004; Pudney, 2008; Ryan, 2012). More specifically, changing jobs, being promoted at work (Ryan, 2012) and job satisfaction (Medgyesi & Zolyomi, 2016) have been found to have a positive impact on satisfaction with finances. Unemployment has been found to have a strong negative effect on financial satisfaction (Welsch & Kuhling, 2016; Medgyesi & Zolyomi, 2016).

Financial stress is an important indicator of financial well-being and has been found to be directly associated with satisfaction with finances (Joo and Grable, 2004). Financial stress is more common among some groups, ex. those who own a home and have dependents. Other factors that directly relate to financial well-being are financial knowledge, solvency, risk tolerance and financial behaviour. Many of these factors are modifiable. In fact, the authors suggested increased use of targeted education initiatives directed at improving the financial literacy and behaviors.

Gerrans, Speelman and Campitelli (2014) added to the literature on financial well-being by examining financial well-being factors for females and males separately. They tested a 2008 model developed by Joo which includes financial satisfaction, income level status, financial behavior and subjective perceptions (attitudes and knowledge). They found that knowledge, more than financial status (household income, debt, savings) provides financial satisfaction for males, while financial status provides financial satisfaction for females. Need level is also an important factor in financial well-being. When evaluating financial satisfaction, individuals have been found to take into account not only their level of income but also how adequate and stable that income is to satisfy their needs (Vera-Toscano, Ateca-Amestoy & Serrano-Del-Rosal, 2006).

Health has been found to have a strong effect on financial satisfaction in several studies (Vera-Toscano, Ateca-Amestoy & Serrano-Del-Rosal, 2006; Plagnol, 2011; Rautio et al., 2013; Medgyesi & Zolyomi, 2016). For example, those dissatisfied with their finances have been found to be more likely to suffer from depressive symptoms even after adjusting for gender, age, marital status, number of chronic diseases, smoking, binge drinking, physical activity, education and household income (Rautio et al., 2013). Also, perceived access to health services was found to be have a greater influence on life satisfaction than income.

Table 1: Factors Associated with Satisfaction with Life and Finances

Factor	Relationship	Source
Demographic Factors		
Age	U-shaped	Joo & Gable, 2004; Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006; Hansen et al, 2008; Pagnol, 2011; Ryan, 2012; Medgyesi & Zolyomi, 2016
Sex	=	Van Pragg et al, 2003; Joo & Gable, 2004; Medgyesi & Zolyomi, 2016; Gerrans, Speelman & Campitelli, 2014
Education	+	Joo and Gable, 2004
Divorce	-	Hsieh, 2001; Joo & Gable, 2004; Pudney, 2008; Ryan, 2012; Medgyesi & Zolyomi, 2016
Metropolitan area	-	Hsieh, 2011
Income and Wealth		
Income and relative income	+	Ferrer-i-Carbonell, 2005; Johnson & Krueger, 2006; Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006; Hansen et al., 2008; Brown & Gray, 2004; Pagnol, 2011; Ryan, 2012; Zyphur et al, 2015
Wealth, assets, debt	+	Hansen et al, 2008 ; Pagnol, 2011; Gerrans, Speelman & Campitelli, 2014
Home ownership	+/-	Joo and Gable, 2004
Employment		
Employment	+	Hira & Mugenda, 1999; Hsieh, 2001; Joo and Gable, 2004; Pudney, 2008; Ryan, 2012
Job promotion	+	Ryan, 2012
Unemployment	-	Welsch & Kuhling, 2016; Medgyesi & Zolyomi, 2016
Changing jobs	+	Ryan, 2012
Job satisfaction	+	Medgyesi & Zolyomi, 2016
Retirement	+	Ryan, 2012
Financial Well-being		
Financial stress	-	Joo and Gable, 2004; Gerrans, Speelman & Campitelli, 2014
Financial literacy/knowledge	+	Joo and Gable, 2004; Gerrans, Speelman & Campitelli, 2014; Xioa, 2014
Risk tolerance	-	Joo and Gable, 2004; Gerrans, Speelman & Campitelli, 2013
Desirable Financial behaviour	+	Joo and Gable, 2004; Gerrans, Speelman & Campitelli, 2014; Xioa, 2014
Needs	-	Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006
Health		
Health status	+	Vera-Toscano, Ateca-Amestoy & Serrano-Del-Rosal, 2006; Pagnol, 2011; Rautio et al, 2013 ; Medgyesi & Zolyomi, 2016
Access to health services	+	Jorgensen, Jamieson & Martin, 2010

Financial Satisfaction among CAF Veterans

In LASS 2016, rates of satisfaction with finances were higher among older veterans, those with university education, those employed or retired, those satisfied with their work and those with higher incomes. Veterans who were younger (less than 55), divorced, never married, attending school, unemployed, disabled or on disability, experiencing low income (below LIM), had lower household income, were dissatisfied with work and in poor health had lower satisfaction rates. Males and females did not differ in satisfaction with finances.

The rate of financial satisfaction declined from 75% and 74% in 2010 and 2013 respectively, to 69% in 2016. There was a significant decline in satisfaction among veterans whose household income was between \$50,000 and \$99,000 from 2010 to 2016 and Veterans who attended school from 2013 to 2016. There were other groups that had declines in satisfaction but the differences were not significant.

Table 2: Satisfied or Very Satisfied with Finances, LASS 2010, 2013 & 2016

	2010*	2013*	2016
Total	74.5% (72.6, 76.2)	73.9% (71.5, 76.1)	68.7% (66.3, 71.0)
Sex			
Males	75.0% (73.1, 76.9)	73.6% (71.0, 76.0)	69.0% (66.5, 71.5)
Females	70.0% (64.3, 75.2)	76.0% (69.1, 81.7)	66.3% (59.4, 72.6)
Age at survey			
<25	73.3% (45.7, 89.9)	73.9% (50.4, 88.7)	43.8% (27.4, 61.7)
25-34	56.6% (50.0, 62.9)	64.2% (56.4, 71.2)	53.3% (45.9, 60.6)
35-44	71.1% (66.8, 75.1)	71.4% (65.2, 76.9)	64.4% (57.5, 70.7)
45-54	76.5% (74.1, 78.7)	74.4% (70.8, 77.8)	69.2% (65.0, 73.1)
55-64	85.9% (82.6, 88.7)	80.1% (76.2, 83.6)	78.4% (74.5, 81.8)
65+	84.8% (65.4, 94.3)	85.6% (78.0, 90.8)	82.1% (76.2, 86.8)
Rank			
Officer	90.7% (87.5, 93.2)	89.5% (86.8, 91.8)	84.7% (81.8, 87.3)
Senior NCM	80.9% (78.3, 83.3)	77.1% (74.1, 79.8)	75.3% (72.3, 78.1)
Junior NCM	64.2% (61.3, 67.1)	66.8% (62.8, 70.6)	59.5% (55.4, 63.5)
Length of service			
<10	61.7% (56.6, 66.5)	68.1% (62.4, 73.3)	57.6% (52.2, 62.9)
10-19	68.2% (63.7, 72.5)	65.3% (58.1, 71.8)	59.2% (52.6, 65.4)
20+	80.6% (78.7, 82.4)	78.7% (76.2, 81.0)	77.8% (75.2, 80.2)
Education			
Less than high school	75.4% (68.6, 81.1)	62.7% (51.4, 72.7)	62.6% (49.6, 74.0)
High school graduation	73.3% (70.4, 75.9)	73.9% (70.3, 77.3)	69.0% (65.2, 72.6)
Post-secondary grad	70.4% (67.1, 73.4)	70.5% (66.2, 74.5)	63.8% (59.6, 67.9)
University	87.4% (83.4, 90.6)	86.1% (81.8, 89.5)	80.0% (75.7, 83.8)
Marital Status			
Married/common law	77.9% (76.0, 79.7)	77.3% (74.8, 79.6)	73.2% (70.6, 75.7)
Widowed/separated/divorced	57.9% (51.8, 63.8)	58.4% (50.7, 65.7)	57.9% (50.3, 65.1)
Single/never married	61.7% (54.2, 68.7)	65.5% (56.4, 73.5)	50.4% (42.8, 58.0)
Household income			
<\$50,000	49.5% (44.3, 54.7)	45.2% (36.3, 54.3)	42.7% (35.8, 49.9)
\$50,000 - \$99,999	70.3% (67.2, 73.2)	66.8% (62.3, 71.0)	60.1% (55.9, 64.2)
\$100,000-\$149,999	85.5% (82.4, 88.1)	83.4% (79.0, 87.0)	76.3% (71.5, 80.5)
\$150,000 +	92.4% (89.0, 94.8)	90.3% (86.4, 93.1)	88.7% (85.1, 91.6)
Low Income (below LIM)	39.5% (30.7, 48.9)	33.3% (23.2, 45.3)	34.5% (23.3, 47.6)
Main activity past 12 months			
Worked at a job or ran a business	77.6% (75.5, 79.6)	78.0% (75.2, 80.6)	73.6% (70.6, 76.5)
Retired and not looking for work	86.6% (82.4, 89.9)	81.0% (75.9, 85.3)	79.1% (74.8, 82.8)
Attended school or training	47.0% (34.4, 60.0)	55.8% (40.4, 70.1)	28.4% (20.2, 38.3)
Looked for work	34.7% (23.1, 48.5)	38.4% (23.7, 55.6)	35.6% (24.7, 48.2)
Caregiving	71.3% (60.6, 80.0)	54.8% (43.1, 65.9)	53.7% (36.5, 70.1)
Was disabled or on disability	46.8% (40.6, 53.0)	48.5% (38.7, 58.4)	44.1% (36.2, 52.3)
Satisfaction with Main Activity (among those who worked at a job or ran a business)			
Satisfied or very satisfied	85.4% (83.3, 87.2)	84.3% (81.5, 86.8)	80.4% (77.2, 83.2)
Neither	50.6% (43.0, 58.2)	53.1% (43.0, 62.9)	48.1% (38.4, 58.1)
Dissatisfied or very dissatisfied	42.1% (34.7, 49.9)	47.3% (36.3, 58.5)	38.4% (27.0, 51.2)
Unemployed	46.0% (37.2, 55.0)	47.4% (35.6, 59.6)	37.6% (28.9, 47.2)
Activity Limitation			
Often or sometimes	67.8% (65.4, 70.0)	66.0% (62.8, 69.2)	61.4% (58.3, 64.5)
Never	82.6% (79.7, 85.1)	83.4% (80.0, 86.3)	79.1% (75.5, 82.4)
Needs Help with an Activity of Daily Living			
Yes	54.2% (50.3, 57.9)	55.3% (50.1, 60.5)	57.8% (52.6, 62.8)
No	79.3% (77.2, 81.2)	79.4% (76.8, 81.8)	71.5% (68.7, 74.0)
Self-rated health			
Fair or Poor	51.1% (47.2, 55.1)	55.8% (50.1, 61.3)	51.7% (46.9, 56.5)
Good	72.4% (68.9, 75.6)	71.1% (66.6, 75.1)	63.3% (58.7, 67.7)
Very good or excellent	84.4% (82.0, 86.6)	83.1% (80.0, 85.8)	81.1% (77.8, 84.0)
Self-rated mental Health			
Fair or Poor	43.0% (38.6, 47.4)	48.6% (42.4, 54.8)	44.2% (38.9, 49.6)
Good	66.0% (61.6, 70.2)	64.7% (59.3, 69.8)	61.7% (56.3, 66.9)
Very good or excellent	84.4% (82.3, 86.3)	84.6% (81.9, 86.9)	80.9% (78.0, 83.5)

* entry ranks removed to match LASS 2016

Discussion

This study found support for the continued use of both satisfaction with finances and low income in the measurement of financial security. Both indicators are being used in many surveys in Canada including those where Veterans are identified. Also, while satisfaction with finances is an important measure of financial security, it is often used as component of a broader range of measures (Medgyesi & Zolyomi, 2016). Low income and financial satisfaction measure different aspects of financial security. Other measures that could be considered include level of debt and savings and financial literacy as these concepts are associated with satisfaction with finances.

Several factors were found to be associated with satisfaction with finances. Modifiable factors include income level, debt, savings, employment, satisfaction with employment and financial literacy. However, the relationship between income is complex. First, the relationship between income and financial satisfaction has been found to be weak (Johnson & Krueger, 2006; Hansen et al., 2008). Second, males and females have been found to differ in regard to factors associated with financial satisfaction (Gerrans, Speelman & Campitelli, 2014; Zyphur et al., 2015). Third, for the relatively poor, income comparisons to richer individuals have a negative impact on satisfaction with life and finances (Ferrer-i-Carbonell, 2005; Brown and Gray 2016). However, richer individuals do not become more satisfied by having incomes above the average but instead other factors such as assets and debt and financial literacy, especially among men, were more important predictors. This suggests that a policy based purely on transfers of income is unlikely to improve financial security among Veterans, except among those below the low income measure. Among Veterans released from 1998 to 2015 about 4% experienced low income (VanTil et al., 2017). Interventions such as targeted education initiatives directed at improving financial literacy (Joo & Gamble, 2004) and initiatives targeted at improving employment rates and satisfaction with employment could be considered.

Many factors associated with financial satisfaction in the literature were also found among Regular Force Veterans released since 1998. Modifiable factors included education level, employment, satisfaction with employment and health. MacLean et al (2018) found rank to be important in satisfaction with work, with those at the lowest ranks being the least satisfied with work. After adjusting for other factors, satisfaction with finances was associated with work satisfaction for ranks below officer.

For the general population satisfaction with finances has been found to be important to life satisfaction. However, it is unknown how much satisfaction with finances contributes to life satisfaction among Veterans. A study of global life satisfaction among Canadian Forces members (Pepin, Sodom, & Dunn, 2006) found that satisfaction with self and satisfaction with work were important determinants of life satisfaction. As mentioned, satisfaction with work and finances are correlated. Further research could examine the importance of financial satisfaction to life satisfaction among Canadian Veterans.

This study is the first time financial security and more specifically financial satisfaction in a representative sample of Canadian Armed Forces Veterans has been examined in detail. However, there are a few limitations. The review of measures of financial security included only those from Canadian national data sources and the literature review was not systematic. The examination of Canadian Veteran satisfaction with finances was based on Regular Force Veterans released since 1998 and therefore findings cannot be generalized to the entire Veteran population. The analysis was descriptive and therefore conclusions cannot be drawn on the strength of associations between factors and satisfaction with finances. Further study is needed to tease out which factors are important after controlling for other variables. Also, the data was cross-sectional and therefore causal relationships between the factors identified and financial satisfaction among Veterans cannot be established.

Conclusion

There is support for the continued use of both satisfaction with finances and low income rate in the measurement of financial security. Satisfaction with finances is important to life satisfaction and is related to several factors including income, education, debt, savings, employment, health and financial literacy. Interventions to improve financial security among Veterans may involve these factors, however, further research is needed.

References

- Bonikowska, A., Helliwell, J. F., Depository Services Program (Canada), & Statistics Canada. Analytical Studies Branch. (2013). An assessment of life satisfaction responses on recent Statistics Canada surveys. Ottawa, Ontario: Statistics Canada = Statistique Canada
- Brown, S., & Gray, D. (2016). Household finances and well-being in Australia: An empirical analysis of comparison effects. *Journal of Economic Psychology*, 53, 17-36.
- Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research*, 57(2), 119–169. doi:10.1023/A:1014411319119.
- Easterlin, R. A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, 27(4), 463-482.
- Ferrer-i-Carbonell, A. (2005). Income and well-being: an empirical analysis of the comparison income effect. *Journal of Public Economics*, 89: 997-1019.
- Gerrans, P., Speelman, C., & Campitelli, G. (2014). The relationship between personal financial wellness and financial wellbeing: A structural equation modelling approach. *Journal of Family and Economic Issues*, 35(2), 145-160.
- Hansen, T., Slagsvold, B. & Moum, T. (2008) Financial Satisfaction in Old Age: A Satisfaction Paradox or Result of Accumulated Wealth? *Social Indicators Research*, 89: 323-347.
- Havasi, V. (2013). Financial situation and its consequences on the quality of life in the EU countries. *Social Indicators Research*, 113(1), 17-35.
- Herbst, C. M. (2012). Footloose and fancy free? Two decades of single mothers'
- Hira, T. K., & Mugenda, O.M. (1999). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences*, 91(4): 76–82.
- Howell, R. T., Kurai, M., & Tam, L. (2013). Money buys financial security and psychological need satisfaction: Testing need theory in affluence. *Social Indicators Research*, 110(1), 17-29.
- Hsieh, C. (2001). Correlates of financial satisfaction. *The International Journal of Aging and Human Development*, 52(2), 135-153. doi:10.2190/9YDE-46PA-MV9C-2JRB
- Johnson, W., & Krueger, R. F. (2006). How money buys happiness: Genetic and environmental processes linking finances and life satisfaction. *Journal of Personality and Social Psychology*, 90(4), 680-691. doi:10.1037/0022-3514.90.4.680
- Joo, S. (2008). Personal financial wellness. In J. J. Xiao (Ed.), *Handbook of Consumer Research*. New York: Springer.

- Joo, S., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, 25(1), 25-50. doi:JEEI.0000016722.37994.9f
- Jorgensen, B. S., Jamieson, R. D., & Martin, J. F. (2010). Income, sense of community and subjective well-being: Combining economic and psychological variables. *Journal of Economic Psychology*, 31(4), 612-623. doi:10.1016/j.joep.2010.04.002
- MacLean, M. B., VanTil, L., Sweet, J., Poirier, A., & McKinnon, K. (2018). Factors associated with work satisfaction among veterans. *Journal of Military, Veteran and Family Health*, 4(1), 33-41.
- Medgyesi M and Zolyomi E (2016), Job satisfaction and satisfaction in financial situation and their impact on life satisfaction, European Commission, November, 2016.
- Pepin K, Sudom K, & Dunn J. (2006). "Your Say": Quality of Life 2005 Findings. Department of National Defence, Centre for Operational Research and Analysis, Technical Memorandum. December 2006: p 39.
- Plagnol, A. C. (2011). Financial satisfaction over the life course: The influence of assets and liabilities. *Journal of Economic Psychology*, 32(1): 45-64.
- Pudney, S. (2008). The dynamics of perception: modelling subjective wellbeing in a short panel. *Journal of the Royal Statistical Society*, 171(1): 21-40.
- Rautio, N., Kautiainen, H., Koponen, H., Mantyselka, P., Timonen, M., Niskanen, L., ... Keinanen-Kiukaanniemi, S. (2013). Financial satisfaction and its relationship to depressive symptoms in middle-aged and older adults: results from the FIN-D2D survey. *Int J Soc Psychiatry*, 59(3), 239-246. doi: 10.1177/0020764011433635.
- Ryan, C. (2012). Responses to financial stress at life transition points. Occasional Paper, No. 41. https://www.dss.gov.au/sites/default/files/documents/09_2012/op41.pdf
- Van Praag, B.M.S., Frijters, P., & Ferrer-i-Carbonell, A. (2003). The anatomy of subjective well-being. *Journal of Economic Behavior and Organization*, 51(1), 29-49.
- Van Til LD, Sweet J, Poirier A, McKinnon K, Sudom K, Dursun S, Pedlar D (2017). Well-Being of Canadian Regular Force Veterans, Findings from LASS 2016 Survey. Charlottetown PE: Veterans Affairs Canada. Research Directorate Technical Report, 23 June 2017.
- Vera-Toscano, E., Ateca-Amestoy, V. & Serrano-Del-Rosal, R. (2006). Building Financial Satisfaction. *Social Indicators Research*, 77: 211-243.
- Veterans Affairs Canada. Monitoring the well-being of veterans: A veteran well-being surveillance framework. Charlottetown (PE): Veterans Affairs Canada Strategic Policy Unit; 2017 Aug. Available from: <http://www.publications.gc.ca/pub?id=9.849051&sl=0>
- Vlaev, I., & Elliott, A. (2014). Financial well-being components. *Social Indicators Research*, 118(3), 1103-1123.

Welsch, H., & Kuhling, J. (2016). How has the crisis of 2008-09 affected subjective well-being? Evidence from 25 OECD countries. *Bulletin of Economic Research*, 68(1), 34-54.

Xiao, J. J., Chen, C., & Chen, F. (2014). Consumer financial capability and financial satisfaction. *Social Indicators Research*, 118(1), 415-432.

Zagorski, K., Evans, M. D. R., Kelley, J., & Piotrowska, K. (2014). Does national income inequality affect individuals' quality of life in Europe? Inequality, happiness, finances, and health. *Social Indicators Research*, 117(3), 1089-1110.

Zyphur, M. J., Li, W., Zhang, Z., Arvey, R. D., & Barsky, A. P. (2015). Income, personality, and subjective financial well-being: The role of gender in their genetic and environmental relationships. *Frontiers in Psychology*, 6, 1493.

Appendix A: Measures of Financial Security

Source	Concept	Item
1.LASS	1. Satisfaction with Finances	<i>How satisfied are you with your financial situation?</i> Very satisfied; Satisfied; Neither; Dissatisfied; Very dissatisfied
	2. Total personal and household income	<i>Total household & personal incomes (from all sources and before taxes & deductions):</i> <i>Household income (min=-\$9M, max=\$90M) and ranges (\$K) - <50, 50+, <5, 5-10, 10-15, 15-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-150, 150+</i> <i>Personal income (min=-\$9M, max=\$90M) and ranges (\$K) - <30, 30+, <5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100+</i>
	3. Low Income measure (LIM-before tax)	Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.
	4. Changes in income pre- and post-release	Total income, sources of income, employment income, household income
2. Income Linkage (T1FF)	1. Total personal and household income	Collected primarily from income tax returns submitted to the Canada Revenue Agency (CRA), provide income and demographic information for sub-provincial geographic areas.
	2. Sources of income	Employment Income, Investment Income, Government Transfers, Private Pensions, RRSP Income, Other Income
	3. Low income measure (LIM-before and after tax)	Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.
3. CAFTWS	1. Satisfaction with Finances	<i>How satisfied are you with your financial situation?</i> Very satisfied; Satisfied; Neither; Dissatisfied; Very dissatisfied
	2. Source of stress	<i>Thinking about the amount of stress in your life, would you say that most days are...?</i> Not at all stressful; Not very stressful; A bit stressful; Quite a bit stressful; Extremely stressful <i>Thinking about stress in your day-to-day life, what would you say is the most important thing contributing to feelings of stress you may have?</i> Time pressures / Not enough time; Own physical health problem or condition; Own emotional or mental health problem or condition; Financial situation (e.g., not enough money, debt); Working conditions (e.g., hours of work, your own working co; School Employment status (e.g., unemployment); Personal relationships; Personal and family's safety; Health of spouse or partner; Health of family members other than spouse or partner; Caring for - own children; Other personal or family responsibilities; Transition - Stress leaving the military, transitioning to civilian life; Uncertainty / Fear of future; Other; Nothing
	3. Financially prepared	<i>I am financially prepared for civilian life.</i> No; Somewhat; Yes
	4. Meeting basic needs	<i>I am confident that I can make ends meet.</i> No; Somewhat; Yes

	5.	Total personal income	<i>Total personal income (from all sources and before taxes & deductions)- min=-\$9M, max=\$90M and ranges (\$K) - <30, 30+, <5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100+</i>
4. CLSA	1.	Management of finances	<i>Which of these phrases best describes how you (and your spouse/partner) are getting along financially these days? Manage very well; Manage quite well; Get by alright; Don't manage very well; Have some financial difficulties; Have severe financial difficulties</i>
	2.	Meeting basic needs	<i>How well do you think that your income currently satisfies your basic needs? Would you say...Very well; Adequately; With some difficulty; Not very well; Totally inadequately</i>
	3.	Expectations adequacy of income before retirement	<i>Before your retirement, how adequate did you think your household income and investments would be to maintain your standard of living? Would you say they were...Adequate; Barely adequate; or Inadequate</i>
	4.	Reason for retirement financially possible	<i>There are many reasons why people retire. Which of the following reasons contributed to your decision to retire? Completed the required years of service to qualify for pension; Retirement was financially possible; Health/disability/stress reasons; Employer offered special incentives to retirement; Organizational restructuring or job eliminated; Providing care to a family member or friend; Employer had a mandatory retirement policy; Wished to pursue hobbies or other activities of personal interest; Wanted to stop working; An agreement with your spouse or partner; Other (please specify)</i>
	5.	Finances as reason for going back to work after retirement	<i>Which of the following reasons contributed to your decision to go back to work after you first retired? Financial considerations; Caregiving duties were no longer required; Improvement in your health; Liked working/being active; Interesting work opportunity; Preferred gradual retirement; Wanted to make a contribution; Wanted a challenge; Did not like retirement or not ready to retire; Other (please specify)</i>
	6.	Sources of income (personal & household)	<i>Wages and salaries, Income from self-employment, Dividends and interest (e.g., on bonds, savings), Employment insurance, Worker's compensation, Benefits from Canada or Quebec Pension Plan, Job related retirement pensions, superannuation and annuities, RRSP/RRIF, Old Age Security, Guaranteed Income Supplement, Provincial or municipal social assistance or welfare, Child Tax Benefit, Child support, Alimony, Capital gains (e.g. profits from sale of stocks), None, Other-specified (e.g., rental income, veterans' pensions)</i>
	7.	Total income (personal & household)	<i>Ranges for total personal income and total household income (from all sources and before taxes & deductions) ranges (\$K): <20, 20-50, 50-100, 100-150, 150+</i>
	8.	Wealth	<i>Questions on current incomes, investments, and assets to measure socioeconomic status.</i>
5. CSD	1.	Need for help with finances related to disability	<i>Because of your condition, do you usually receive help with looking after your personal finances, such as making bank transactions or paying bills? Yes; No Do you need additional help with looking after your personal finances? Yes; No Do you think you need help with looking after your personal finances? Yes; No</i>
	2.	Finances as a barrier to work	<i>Some people have encountered barriers which have discouraged them from looking for work. Please think about your own experience and indicate which of the following situations apply to you. Your expected employment income would be less than your current income; You would lose additional supports such as drug plan or housing; Lack of specialized transportation; Your family responsibilities prevent you from working; Your past attempts to find work have been unsuccessful; Your family or friends discourage you from working; You have experienced discrimination in the past; You feel your</i>

		training or experience is not adequate for the current job market; There are few jobs available in your local area; You experienced accessibility issues when applying for work; Other reason
	3. Sources of income	Wages and salary; Self-employment; Workers' Compensation; Canada Pension Plan Disability Benefit; Quebec Pension Plan Disability Benefit; Benefits from CPP excluding disability; Benefits from QPP excluding disability; Long Term Disability (private plan); Motor Vehicle Accident Insurance Disability Benefit; Veterans Affairs Disability Pension Benefit; Provincial, Territorial, Municipal Social Assistance; Employment Insurance or Quebec Parental Insurance
	4. Total personal and household income (record linkage to other sources)	Collected primarily from income tax returns submitted to the Canada Revenue Agency (CRA), provide income and demographic information for sub-provincial geographic areas.
6. CAFVMHS	1. Satisfaction with finances	<i>How satisfied are you with your financial situation?</i> Very satisfied; Satisfied; Neither; Dissatisfied; Very dissatisfied
	2. Source of worry in 2002	<i>Now, tell me which of these things were you [worried, nervous or anxious/nervous or anxious/anxious or worried] about during that time?</i> Worrying about everything; Worrying about nothing in particular; Finances ; Success at school or work; Social life; Love life; Relationships at school or work; Relationships with family; Physical appearance; Own physical health; Own mental health; Alcohol or drug use; Being away from home or apart from loved ones; The health or welfare of loved ones; Social phobias (e.g., meeting people); Agoraphobia (e.g., leaving home alone); Specific phobias (e.g., fears of bugs, heights or closed spaces); Obsessions (e.g., worry about germs); Compulsions (e.g., repetitive hand washing); Crime / violence; Economy; Environment (e.g., global warming, pollution); Moral decline of society (e.g., capitalism, decline of the family); War / revolution; Other - Specify
	3. Low Income measure (household)	Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.
	4. Income Sources (household and personal)	<i>Thinking about the total income for all household members, from which of the following sources did your household receive any income in the past 12 months?</i> Wages and salaries; Income from self-employment; Dividends and interest (e.g., on bonds, savings); Employment insurance; Worker's compensation; Benefits from Canada or Quebec Pension Plan; Job related retirement pensions, superannuation and annuities; RRSP/RRIF (Registered Retirement Savings Plan/Registered Retirement Income Fund); Old Age Security and Guaranteed Income Supplement; Provincial or municipal social assistance or welfare; Child Tax Benefit; Child support; Alimony; Other (e.g., rental income, scholarships) <i>What was the main source of income (of those above)?</i>
	5. Total personal and household income	<i>Total household income (from all sources and before taxes & deductions) – min=-\$9M, max = \$90M and ranges (\$K): <50, 50+, <5, 5-10, 10-15, 15-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-150, 150+</i> <i>Total personal income (from all sources and before taxes & deductions) - min=-\$9M, max=\$90M and ranges (\$K) - <30, 30+, <5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100+</i>

	6.	Making ends meet	<i>With your current household income, do you have any difficulty meeting basic expenses such as food, shelter and clothing? Y, N, RF, DK</i>
7. Your Say	1.	Satisfaction with Finances	<i>How satisfied are you with your financial situation? Very satisfied; Satisfied; Neither; Dissatisfied; Very dissatisfied</i>
8. MMFFS	1.	Spousal employment	<i>Is your partner/spouse employed in a paid position? If no, selection: Not in the labour force (not looking for work), Unemployed (can't find: any employment or suitable employment), Can't afford daycare, Other. If yes, selection: Employed outside home, Self-employed-Runs (owns/operates) a business from home, Self-employed – Owns a business outside the home, In the military (CAF Reserve Force or CAF Regular Force)</i>
	2.	Total personal and household income	<i>Ranges of total individual income and total household income (from all sources and before taxes & deductions) (\$): 15,000-40,000, 40,000-65,000, 65,001-90,000, 90,001-115,000, 115,001-140,000, 140,001-165,000, 165,001-190,000, 190,001-215,000, 215,001-240,000, 240,001+</i>
	3.	Home ownership and mortgage	<i>Do you currently own or rent your primary home? Selection: Rent, Own, Rent in DND Residential Housing Unit, or Rent on the Civilian Economy. Please tell us about your home's financial structure and equity? (Purchase price, Current market value (what you would sell for), Money owing on mortgage, and Money owing on Home Equity LOC – values are in ranges of \$50 K starting at \$0- lower limit up to more than \$700,001- upper limit)</i>
	4.	Debt and sources of debt includes debt-to-household income ratio, debt service ratio and debt-to-asset ratio	<i>Types of Debt and Amount (Selection in Ranges-\$10,000 increments, from None to More than \$50,000): None Vehicle loans/leases, LOC(s), Other Debt (Pay day loans, student loans, credit cards, etc). Reasons for debt (home purchase, vehicle purchase, children, child support, vacation, education, basic living expenses, etc)</i>
	5.	Perceived standard of living	<i>Overall, how would you rate your standard of living? (Selection: Very low, Fairly low, Average, Fairly high, Very high) Overall, how satisfied are you with your standard of living? (Selection: Very dissatisfied, Dissatisfied, Neither, Satisfied, Very satisfied)</i>
	6.	Perceived financial situation after postings	<i>Did your household spending change in relation to the deployment? No or Yes. If yes, when and what type of spending change did your experience: Before deployment, During deployment, After deployment</i>
	7.	Actions to increase retirement income	<i>Do you intend to work after retiring from the military? N, Y (if yes, in how many years do you plan to retire from the military? And Do you intend to take a job (select all that apply): Earning the same amount of pay as when you were serving, Earning more money than when you were serving, Earning less money than when you were serving, With more responsibility, With less responsibility, and I do not know, Unsure.</i>

	8.	Awareness of financial services and perceptions of CAF financial services	<p><i>Are you aware of financial services offered by SISIP Financial and Canadian Forces Morale & Welfare Services? If yes, respond (Y/N) to the following statements: I am aware of this program, I am using this service now, I have used this service in the past. And rating of How satisfied are/were you with the program/service? (1=Very Dissatisfied to 5=Very Satisfied), by program (Long-Term Disability, Group Term Life Insurance, Financial Counselling (budget/debt management), Financial Planning (investments), Retirement and Release Planning, Mutual Funds and other investments, Emergency loans and grants (e.g., financial distress, self-improvement), CFMWS Program, Community Defense Banking, Group home & auto insurance (The Personal), and CANEX credit plan.</i></p> <p><i>Do you feel the Canadian Forces Morale & Welfare Services could do more to support you in obtaining your financial goals? Y/N</i></p> <p><i>Are there other products or services that could be offered? Y/N. If yes, what are your suggestions?</i></p>
	9.	Satisfaction with aspects of finances	<p><i>Please indicate your level of satisfaction with the following in the past year: Regular monetary savings, Current debt levels, Family's current financial situation, Your family's future financial situation, Ability to meet long-term financial goals, Your preparation to meet long-term financial goals, Ability to meet financial emergencies, Money management skills, Overall savings and investments, The extent to which you have been able to control your financial situation, The estate planning you have done, Your family's financial security if you were seriously ill/injured, Your family's financial security if you were to die suddenly, The way you and your spouse/partner shared financial responsibilities (if applicable), and The way you and your spouse/partner communicated about your finances (if applicable)). Selections: Very dissatisfied, Dissatisfied, Neither, Satisfied, Very satisfied)</i></p> <p><i>How satisfied do you think your spouse/partner is with your family's financial situation? Selections: Very dissatisfied, Dissatisfied, Neither, Satisfied, Very satisfied)</i></p>
9. Census 2016	1.	Total personal and household income	<i>Collected primarily from income tax returns submitted to the Canada Revenue Agency (CRA), provide income and demographic information for sub-provincial geographic areas.</i>
	2.	Low income measure (LIM-after tax) (household)	<i>Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.</i>
	3.	Home ownership	<i>Core Housing Need – Unsuitable, Inadequate or Unaffordable plus “unable to afford alternative housing”.</i>
10. CCHS (Canadian Community Health Survey) 2018	1.	Income Sources (household)	<p><i>Thinking about the total income for all household members, from which of the following sources did your household receive any income in the past 12 months? Wages and salaries; Income from self-employment; Dividends and interest (e.g., on bonds, savings); Employment insurance; Worker's compensation; Benefits from Canada or Quebec Pension Plan; Job related retirement pensions, superannuation and annuities; RRSP/RRIF (Registered Retirement Savings Plan/Registered Retirement Income Fund); Old Age Security and Guaranteed Income Supplement; Provincial or municipal social assistance or welfare; Child Tax Benefit; Child support; Alimony; Other (e.g., rental income, scholarships)</i></p> <p><i>What was the main source of income?</i></p>
	2.	Total household income	<i>Total household income (from all sources and before taxes & deductions) – min=-\$9M, max = \$90M and ranges (\$K): <50, 50+, <5, 5-10, 10-15, 15-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-150, 150+</i>

11. GSS (General Social Survey) 2003, 2005 and 2006	1.	Satisfaction with finances	<i>I am going to ask you to rate certain areas of your life. Please rate your feelings about them, using a scale of 1 to 10 where 1 means "Very dissatisfied" and 10 means "Very satisfied". What about... your health? ...your job or main activity? ...the way you spend your other time? ...your finances? Using the same scale, how do you feel about your life as a whole right now?</i>
12. CIS (Canadian Income Survey) 2016	1.	Financial difficulty due to disability	<i>In 2016, have you and your household experienced significant financial difficulty because of a long term disability or health problem of a member of your household? Yes, sometimes; Yes, often; No</i>
	2.	Total personal income	<i>Total personal income (from all sources and before taxes & deductions) - min=-\$9M, max=\$90M and ranges (\$K) - <30, 30+, <5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100+</i>
	3.	Low income measure (LIM-after tax) (household)	<i>Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.</i>
	4.	Total personal income	<i>Amount from social assistance included in personal income amount?</i>
13. CFCS (Canadian Financial Capability Survey)- Inactive/ Occasional (2014)	1.	Perceived ability to keep up with bills and payments	<i>Last 12 months – Behind paying...bills, rent/mortgage, loan payments, How well you and your family have been keeping up with bills/other financial commitments,& what do you do when you run out of money?</i>
	2.	Budgeting	<i>Household budget?, Staying within budget?, \$ Range for recurring expenses?, \$?</i>
	3.	Frequency of checking account balances	<i>How often do you usually check your account balance(s)? possible responses-daily, weekly, every two weeks, monthly, yearly, never, RF, KN</i>
	4.	Level and type of debt, education saving	<i>Assets and debts (type and amounts) Financial choices (financial products, advice, monitoring financial indicators (e.g. interest rate, housing and stock markets, inflation, etc.) Subjective personal assessment (financial attitudes and awareness)</i>
	5.	Preparation for retirement and financial stress	<i>Retirement-Financial plans for retirement?, Revenue for retirement?, Workplace pensions, Primary source of income in retirement, Confidence in household income giving you the desired standard of living in retirement?, Do you know how much is required to give you that standard of living?, Financial Stress-Unexpected expenses (\$500 & \$5000)-how would you pay for them?, Usage of alternative financial services (e.g. payday loan or cheque cashing)?, Withdrawal from RRSPs for other than retirement?, Bankruptcy/informal proposal to creditors?</i>
	6.	Income sources	<i>Income from (Y, N, RF, DK): -wages or salaries, including commissions, tips and bonuses; self-employment income, including farm self-employment, business, professional, commission, fishing, and net income from roomers and boarders; interest, dividends, capital gains or other investment income such as net rental income; Canada or Quebec Pension Plan (CPP or QPP), Old Age Security (OAS), Guaranteed Income Supplement (GIS) or Spouse's Allowance; employment insurance benefits; social assistance and provincial supplements, disability pensions or provincial disability payments; other government</i>

		<i>sources such as Child Tax Benefit (including BC family bonus, Quebec allowances for families), Workers' Compensation, Goods and Services Tax Benefit, provincial tax credits, Veterans' pensions; workplace pensions, RRSP annuities, RRIF withdrawals and RRSP withdrawals; any other income such as alimony, money from persons outside the household to help pay living expenses, scholarships, research grants, retiring allowance, lottery winnings, educational assistance payments, etc.</i>
	7. Total personal and household income	<i>Total personal income and total household income (from all sources and before taxes & deductions)- min=-\$9M, max=\$9M and ranges (\$K): <20, 20-40, 40-60, 60-80, 80-100, 100+</i>
14. T1FF (T1 Family File) 2016	1. Total personal and household income before and after tax	Collected primarily from income tax returns submitted to the Canada Revenue Agency (CRA), provide income and demographic information for sub-provincial geographic areas.
	2. Sources of income	Employment Income, Investment Income, Government Transfers, Private Pensions, RRSP Income, Other Income
	3. Low income measure (LIM- before and after tax)	Above or below Low Income Measure (LIM). Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.
15. SFS (Survey of Financial Security) 2016	1. Net worth of Canadians	Amount of money left if all assets were sold and all debts paid off
	2. Profile of persons holding different types of assets & debts	Assets-Financial (RRSPs, TFSAs, etc.) and Non-Financial (collectables and valuables) Debts-Student Loans, Credit Cards, Lines of Credit, Vehicles and Mortgages
	3. Future consumption capabilities & potential financial vulnerability	Behaviours and Attitudes – CC/LOC Payment Frequency and Amounts (minimum, full, etc.), Refused Credit, Skipping/Delaying Payments and if reason was due to financial difficulties, Pay day loans, Bankruptcy, Withdrawn Money from RRSPs, Household Budget, Prediction on family financial situation in the next two years (better, worse, same, etc.)
	4. Extent to which individuals' current assets will provide them with an income in retirement	Pension Plan Information Asset information (RRSPs, TFSAs, etc)
	5. Total personal income	<i>Total personal income (from all sources and before taxes & deductions) - min=-\$9M, max=\$90M and ranges (\$K): - <30, 30+, <5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100+</i>

Appendix B: Literature on Financial Satisfaction

Author/Year	Purpose	Design/Study Subjects	Conclusion
Medgyesi & Zolyomi, 2016	To explore the distribution and determinants of job satisfaction and satisfaction with finances.	Literature review and modelling on job and financial satisfaction using the EU-SILC ad hoc module carried out in 2013.	Results obtained from the regression analysis of financial satisfaction are consistent with previous studies that show a significant positive effect of income on satisfaction with the financial situation. In addition, unemployment and ill health have a strong negative effect on financial satisfaction. Financial satisfaction tends to be lower among men, the non-married population, those with primary and secondary education, and among those with self-reported poor health. Finally, the U-shaped relationship with age is in line with what has been previously found by subjective well-being research. Results have also shown that job satisfaction and financial satisfaction are important in shaping overall satisfaction with life. Among the measures of domain satisfaction included in the EU-SILC dataset, financial satisfaction was the most strongly correlated with life satisfaction.
Welsch & Kuhling, 2016	To study how changes in the rates of GDP growth, unemployment, and inflation during the macroeconomic crisis of 2008-09 have affected subjective well-being.	Life satisfaction data of almost 140,000 individuals in 25 OECD countries. The relative contributions of the three macroeconomic variables to individuals' life satisfaction are used to assess how each country performed on balance during the crisis.	In countries most strongly affected by the crisis, the effects on an average citizen's well-being may be of a similar magnitude as the effects of the most serious personal life events. The main driver of these effects is the drop in GDP, whose impact is aggravated by the increase of unemployment. Though the inflation rate went down in several of the countries, the effect was too weak to significantly reduce the negative effect of the changes in GDP and unemployment. The results show that GDP fluctuations are important drivers of subjective well-being.
Brown and Gray, 2015	Explores the importance of the household's financial position for an individual's level of well-being.	Household, Income and Labour Dynamics in Australia (HILDA) Survey	The household's level of net wealth, assets and debt are important determinants of overall life satisfaction and financial well-being. The financial position of households in the comparison group is an important determinant of an individual's level of overall life satisfaction and financial well-being, with information effects generally dominating comparison effects. In addition, the effects of the comparison group are asymmetric depending on whether a household's financial position is above or below the average of the reference group.
Zyphur et al, 2015	Examine relationship between income and well-being.	Survey of Midlife Development in the US conducted from 1996 to 1997. n=712 twin pairs aged 25-75.	Men, but not women, had higher subjective financial well-being when they had higher incomes likely driven by unique experiences of men.
Xiao et al, 2014	To examine associations between consumer financial capability and	Data from the 2009 US State-by-State Survey of Financial Capability.	There is a positive association between perceived financial capability and financial satisfaction. The findings suggested that desirable financial behavior increases while risky financial behavior decreases financial satisfaction. Subjective financial literacy was also found to contribute positively to financial satisfaction. The positive

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	financial satisfaction.		association between objective financial literacy and financial satisfaction was found in bivariate analyses but not in multivariate analyses.
Vlaev & Elliott, 2014	To examine the factors underlying financial well-being for two population groups, young workers and families with young children in the UK.	An internet survey of 654 people was conducted, which identified the most significant drivers of FWB or satisfaction.	The most significant finding from the regression is the significance for both groups of having control over their finances; control is even more important than the amount of available money for this population. A conclusion of the research is that the FWB would be increased if individuals could experience a greater sense of overall control of their money. In particular, financial institutions could provide products and processes to improve the FWB of their customers. There are also potential policy implications from the benefits of lower unsecured debt and increased savings to mitigate unexpected life events.
Gerrans & Speelman, 2013	To examine the construct of financial wellness and its relationship to personal wellbeing, with a focus on the role of financial literacy.	Gender comparisons are made using a structural equation modeling analysis including personal wellbeing, financial satisfaction, financial status, financial behavior, financial attitude, and financial knowledge.	Males ranked higher in financial satisfaction and financial knowledge whereas females ranked higher in personal wellbeing. Joo's (2008) concept of financial wellness as multidimensional is supported though the result is improved when a causal model of sub-components is estimated. The relationship of all variables to personal wellbeing is mediated by financial satisfaction, with gender differences: In females the main source of financial satisfaction is financial status whereas in males it is financial knowledge.
Havasi, 2013	To examined the relationship between the objective and subjective side of the quality of life.	The survey of Eurobarometer 72.1 conducted in 2009	This study found that the context of the questions influences the magnitude of the effects of material conditions on subjective well-being. The satisfaction with financial situation explained more than twice of the variance of happiness in the Eurobarometer sample--whose main topic was inequalities--than in the fifth wave of the World Values Surveys sample--whose questions were more diverse. Multiple regression analyses indicated that there are differences between countries in the magnitude of the effects of material conditions on subjective well-being. This effect is smaller in the more post-materialist countries.
Plagnol, 2011	To explore life course financial satisfaction patterns, taking into account not only income but also the possible impact of assets and liabilities.	The second and third waves of the US National Survey of Families and Households.	The analysis suggests that while income has the expected positive relation, increasing financial satisfaction at older age can be partly explained by decreases in liabilities and increases in financial assets, and that assets and liabilities considered separately provide a better explanation than net wealth. In addition, reduction in the dependency burden at old age leads to increased financial satisfaction while the deterioration of health has a negative impact.
Rautio et al., 2013	To examine the association of depressive symptoms with financial satisfaction in Finnish adults in	n=4,500 randomly selected individuals aged 45–74 years. Participation rate = 64%. Complete information on	Altogether 11.6% of individuals who were satisfied with their financial situation had depressive symptoms. Corresponding figures for individuals who were somewhat satisfied or dissatisfied were 20.6% and 42.6%, respectively. Individuals who were less satisfied with their financial situation were more likely to suffer from depressive symptoms even after adjusting for gender, age, marital status, number of chronic diseases, smoking, binge drinking, physical activity, education and household

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	a population based cross-sectional FIN-D2D survey.	depressive symptoms and financial satisfaction was available for 2,819 individuals. Financial satisfaction was asked using a questionnaire. Depressive symptoms were measured by Beck Depression Inventory (≥ 10) and/or use of antidepressants.	income. Instead of more traditional measures of socio-economic position, financial dissatisfaction seems to be associated with depressive symptoms in Finnish adults
Jorgensen, Jamieson & Martin, 2010	To test the effects of income and reference group income on well-being while controlling for a range of social psychological variables.	A random sample of 1,033 residents in a regional Australian city were surveyed by mail on a number of variables including subjective well-being, sense of community, attitudes toward their political officials, civic participation, perceptions of city life, and socio-demographics.	Three general findings are reported. First, income had a significant influence on well-being, but individuals' perceptions of their access to health services had a larger effect. Second, we found that the relationship between well-being and some of its determinants (e.g., health service perceptions) varied significantly between low and high levels of income at the household level and at the regional level. Finally, reference group income was not a significant predictor of well-being in any of the analyses we conducted. These results are discussed in light of the results from previous research in this area.
Hansen et al., 2008	Examine whether the higher rates of being more financially satisfied among older adults compared to younger adults, despite lower incomes among older adults "aging paradox", is related to age differences in wealth and liabilities.	Data are from the first wave of the Norwegian NorLAG study (n=4,169).	Material circumstances are more important to the financial satisfaction of the elderly than previously believed. A considerable part of the higher financial satisfaction with increasing age can thus be explained by greater assets and less debt among the aged. Nonetheless, assets and debt do not mediate this relationship at lower incomes, because older people with little income have very little accumulated wealth. As older people with little income and wealth have a much stronger tendency to be financially satisfied than their younger, equally poor counterparts, an "aging paradox" still remains in this field.

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Vera-Toscano, Ateca-Amestoy & Serrano-Del-Rosa, 2006	Examine individual financial satisfaction as a particular domain of satisfaction with life as a whole.	Based on the 2003 Survey on Living Conditions and Poverty for Andalucía (Spain). n=5,235 living in Andalucía aged 18 and over.	(1) individuals evaluate their financial situation, taking into account not only their level of income but simultaneously assessing how adequate and stable that income is to satisfy their needs; (2) Health status and social participation are individual economic assets which are also important determinants of FS; (3) While short and long term expectations are significant determinants of FS, their importance decreases with time.
Johnson & Krueger, 2006	Examine whether measures of wealth such as income and assets predict life satisfaction.	Survey of Midlife Development in the US conducted from 1996 to 1997. n=712 twin pairs aged 25-75	A relative independence of most perceptions about financial status from measures of actual wealth. Perceived financial situation and control over life completely mediated the association between measures of actual wealth and life satisfaction. Financial resources appeared to protect life satisfaction from environmental shocks. In addition, control appeared to act as a mechanism translating life circumstances into life satisfaction.
Ferrer-i-Carbonell, 2005	To examine the influence of the income of a reference group on individual well-being is examined.	The data come from a large German panel known as GSOEP.	The income of the reference group is about as important as the own income for individual happiness, that individuals are happier the larger their income is in comparison with the income of the reference group, and that for West Germany this comparison effect is asymmetric. This final result supports Dusenberry's idea that comparisons are mostly upwards.
Joo & Grable, 2004	To describe the development and testing of a framework for understanding the determinants of financial satisfaction.	Data from a random sample of white-collar clerical workers (N = 220).	Direct, as well as indirect, effects on financial satisfaction were identified using a path analysis method. It was determined that financial satisfaction is related, both directly and indirectly, with diverse factors including financial behaviors, financial stress levels, income, financial knowledge, financial solvency, risk tolerance, and education. No direct effects were found from age, gender, ethnicity, marital status, education, homeownership, income, number of financial dependents, or financial stressors on financial satisfaction. These findings indicated that demographic and socioeconomic characteristics may indirectly affect financial satisfaction through intervening variables rather than influencing financial satisfaction directly.
Van Praag et al., 2003	To examine whether individual total subjective well-being depends on the different subjective domain satisfactions.	A large German panel data set.	A distinction is made between long-term and short-term effects. The individual domain satisfactions depend on objectively measurable variables, such as income. The income effect on financial satisfaction was less than 0.5. There was a curvilinear age effect with the lowest rates of satisfaction rates at age 45 and 54 for workers in the west and east respectively. Having a partner and education both had a positive effect on satisfaction.

Author/Year	Purpose	Design/Study Subjects	Conclusion
Hsieh, 2001	To 1) assess the effects of major correlates of global subjective well-being on financial satisfaction, and 2) use empirical data to present the consequences of violating basic regression assumptions.	Data from the General Social Surveys, 1972-1996 (Davis & Smith, 1996a)	Among Americans age forty-five and above, most of the major correlates of global subjective well-being show similar effects on financial satisfaction. The study's findings confirm a nonlinear effect of income on financial satisfaction. Comparing results from different analytical methods, this study also alerts researchers to the importance of taking into account the level of measurements of study variables, which have tended to be overlooked by previous subjective well-being research.

