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Labour-Market Outcomes of Veterans

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Labour-Market Outcomes of Veterans

Executive Summary

Introduction

Employment is important to health, well-being and adjustment from military to civilian life. Veterans who were not working were more likely than employed Veterans to report difficulty adjusting to civilian life. The importance of employment to successful transition to civilian life is recognized in the New Veterans Charter (NVC) which includes Career Transition Services and Vocational Rehabilitation. In addition, Veterans Affairs Canada (VAC) is developing an Employment Strategy aimed at improving the employment outcomes of Veterans.

Objectives

This study examines: (1) Veteran labour-force outcomes in Canada and elsewhere; (2) the characteristics of the populations with various types of labour-market outcomes; and (3) effective interventions and best-practices in improving labour-market outcomes.

Method

This study reviewed 75 studies in the Canadian and international (United States, United Kingdom, Australia and New Zealand) literature on Veteran labour market outcomes. This study also analysed the Life After Service Studies 2010 and 2013 to provide a detailed examination of labour market indicators for Canadian Regular Force Veterans released since 1998.

Results

Labour-market outcomes examined in the literature included unemployment, employment, earnings, satisfaction with work, satisfaction with finances, disability days, part- and full-time employment and transferability of skills. In Canada, outcomes among recently released Regular Force Veterans appear quite positive. Most were employed after release and satisfied with their employment and the unemployment rate was not different from that of comparable Canadians. However, Veterans were more likely to experience work disability than Canadians and the employment rate and the work satisfaction rates were much lower in the year following release than on average seven years post-release.

Variations in outcomes were found across diverse groups of the population. For example, higher unemployment rates (i.e. looking for work) were found to be associated with younger age, fewer years of service and combat exposure. Lower employment rates were found to be associated with older age, female gender, medical release, disability and receipt of benefits. Analysis of LASS data found unemployed Veterans were younger at release, had the fewest years of service and were more likely to have served in

the army. Veterans who were not in the labour force, were older, had more years of service and many appeared to be experiencing barriers to work. Employment rates were lower among females compared to males; and medically released compared to non-medically released Veterans.

The literature identified several best practices and interventions in the prevention of work disability. Compensation policy has been a particularly challenging area in terms of balancing income adequacy with incentives to work. As more generous compensation can be a disincentive to work, many jurisdictions have restructured compensation to recognize varying degrees of earnings capacity and to encourage labour-market engagement. Supported employment programs, which focus on placing clients in competitive employment first and then provide intensive on-the-job support, have been found to be more effective than traditional “train then place” vocational rehabilitation. Benefits counselling, treatment for substance use disorders and interventions to improve mental health, have also been found to be effective for improving labour-market outcomes.

Discussion

This study found that in Canada the majority of recently released Veterans were employed and satisfied with their work but the outcomes for sub-groups of the Veteran population differed considerably. This suggests the need for targeted as opposed to universal approaches to improving labour-force outcomes. With so many players providing various types of employment services in Canada, it’s important that there is a common understanding of Veteran labour-market outcomes and who is experiencing various outcomes.

Further research is needed into several areas. Given the higher rate of work disability among recently released Canadian Veterans, research is needed into whether programs aimed at those experiencing barriers to work, such as VAC’s Rehabilitation program, are reaching those in need. In addition, further research is needed to determine factors that contribute to satisfaction with work; gaps and duplication in services in Canada; and which types of services are effective.

While LASS captures many labour-market indicators for a broad population of Veterans, it does not capture all Veterans in Canada, the labour-market content is limited and direct comparisons to other Canadians are not possible. The feasibility of identifying Veterans on future national surveys that include labour-market indicators should be explored.

Conclusion

Many labour-market outcomes are being studied and these outcomes vary across sub-groups of the Veteran population. Findings suggest that the prevention of work disability is important for improving the labour-market outcomes of Veterans in Canada. Several best-practices in preventing work disability were identified. Findings from this study can inform VAC’s employment strategy, currently being developed as well as further research and data collection on Veteran employment outcomes.

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Résultats des vétérans sur le marché du travail

Résumé

Introduction

L'emploi est important pour la santé, le bien-être et la transition de la vie militaire à la vie civile. Les vétérans qui ne travaillaient pas étaient plus susceptibles de déclarer avoir eu de la difficulté à s'adapter à la vie civile que les vétérans qui occupaient un emploi. L'importance de l'emploi pour réussir la transition à la vie civile est reconnue dans la nouvelle Charte des anciens combattants (NCAC) qui comprend les Services de transition de carrière et le Programme de réadaptation professionnelle. De plus, Anciens Combattants Canada (ACC) est en train d'élaborer une stratégie d'emploi ayant pour objectif d'améliorer la situation d'emploi des vétérans.

Objectifs

Cette étude examine : 1) les résultats sur le marché du travail au Canada et à l'étranger pour les vétérans; 2) les caractéristiques des populations ayant divers types de résultats sur le marché du travail; 3) les interventions efficaces et les meilleures pratiques en ce qui a trait à l'amélioration des résultats sur le marché du travail.

Méthode

Dans le cadre de cette étude, on a examiné 75 études canadiennes et internationales (États-Unis, Royaume-Uni, Australie et Nouvelle-Zélande) consacrées aux résultats des vétérans sur le marché du travail. Dans le cadre de cette étude, on a également analysé les résultats de l'Étude sur la vie après le service militaire (EVASM) de 2010 et de 2013, afin de fournir un examen détaillé des indicateurs du marché du travail pour les vétérans de la Force régulière canadienne libérés depuis 1998.

Résultats

Les résultats sur le marché du travail examinés dans la littérature portaient notamment sur le chômage, l'emploi, les revenus, la satisfaction à l'égard du travail, la satisfaction à l'égard des finances, les jours d'incapacité, les emplois à temps plein et à temps partiel, et la transférabilité des compétences. Au Canada, les résultats chez les vétérans de la Force régulière récemment libérés semblent assez positifs. La plupart d'entre eux avaient trouvé un emploi après la libération et étaient satisfaits de leur emploi, et leur taux de chômage était comparable à celui des autres Canadiens. Cependant, les vétérans étaient plus susceptibles que les autres Canadiens de vivre une incapacité au travail, et les taux de chômage et de satisfaction au travail étaient beaucoup moins élevés durant l'année suivant la libération que les taux moyens durant les sept années suivant la libération.

Les variations dans les résultats ont été relevées entre les divers groupes de la population. Par exemple, on a constaté que les taux de chômage plus élevés (c.-à-d. ceux

qui cherchent du travail) étaient associés à un plus jeune âge, aux personnes ayant moins d'années de service à leur actif et à l'exposition au combat, alors que les taux d'emploi plus faibles étaient associés à un âge plus avancé, au sexe féminin, à la libération pour raisons médicales, à l'invalidité et à la perception de prestations. L'analyse des données de l'EVASM a révélé que les vétérans sans emploi étaient plus jeunes au moment de la libération, avaient accumulé moins d'années de service et étaient plus susceptibles d'avoir servi dans l'armée, et que les vétérans qui ne faisaient pas partie de la population active étaient plus âgés, avaient accumulé plus d'années de service et que bon nombre d'entre eux semblaient être confrontés à des obstacles au travail. Les taux d'emploi étaient moins élevés chez les femmes que chez les hommes, et chez les vétérans qui ont été libérés pour des raisons médicales comparativement aux vétérans libérés pour des raisons non médicales.

Plusieurs pratiques exemplaires et interventions en matière de prévention de l'incapacité au travail ont été relevées dans les documents examinés. La politique sur l'indemnisation s'est révélée un domaine particulièrement difficile pour ce qui est de l'équilibre entre un niveau adéquat de revenu et des incitatifs à l'emploi. Comme une indemnisation plus généreuse peut ne pas inciter à travailler, de nombreuses administrations ont restructuré l'indemnisation afin de reconnaître les différents degrés de capacité à gagner un revenu et de favoriser la participation au marché du travail. Les programmes d'emploi assisté, qui mettent d'abord l'accent sur le placement des clients dans le système d'emploi compétitif, puis sur l'offre d'un soutien intensif au travail, se sont avérées plus efficaces que les mesures de réadaptation professionnelle traditionnelles « formation d'abord, placement ensuite ». Le counselling en matière de prestations, le traitement des troubles liés à l'utilisation d'une substance et les interventions pour améliorer la santé mentale se sont également avérés efficaces pour améliorer les résultats sur le marché du travail.

Discussion

Cette étude a montré que, au Canada, la majorité des vétérans récemment libérés occupaient un emploi et étaient satisfaits de leur travail. Cependant, les résultats varient considérablement au sein des différents sous-groupes de la population des vétérans, ce qui donne à penser qu'il faut privilégier des approches ciblées plutôt que des approches universelles pour améliorer les résultats sur le marché du travail. Vu le grand nombre d'intervenants qui offrent divers types de services d'emploi au Canada, il est important qu'il y ait une compréhension commune des résultats des vétérans sur le marché du travail et des groupes qui ont des résultats différents.

D'autres recherches sont nécessaires dans plusieurs domaines. Compte tenu du taux plus élevé d'incapacité au travail chez les vétérans canadiens récemment libérés, d'autres études sont nécessaires pour déterminer si les programmes visant les personnes qui sont confrontées à des obstacles au travail, comme le Programme de réadaptation d'ACC, parviennent à aider ceux qui en ont besoin. Il faudra également effectuer des recherches supplémentaires pour déterminer les facteurs qui contribuent à la satisfaction à l'égard du travail, les lacunes et le chevauchement des services offerts au Canada, et les types de services qui sont efficaces.

L'EVASM permet de recueillir des données sur de nombreux indicateurs du marché du travail pour une grande partie de la population des vétérans, mais elle ne permet pas d'évaluer la situation de tous les vétérans du Canada. Le contenu sur le marché du travail est limité et ne permet pas d'effectuer des comparaisons directes avec les autres Canadiens. La possibilité d'identifier les vétérans dans le cadre des futures enquêtes nationales comprenant des indicateurs du marché du travail devrait être envisagée.

Conclusion

De nombreux résultats sur le marché du travail sont étudiés, et ces résultats varient au sein des différents sous-groupes de la population des vétérans. Il ressort des constatations que la prévention de l'incapacité au travail est importante pour améliorer les résultats des vétérans sur le marché du travail au Canada. Plusieurs pratiques exemplaires en matière de prévention de l'incapacité au travail ont été relevées. Les constatations issues de cette étude peuvent orienter l'élaboration de la stratégie d'emploi d'ACC qui est en cours, ainsi que les recherches et la collecte de données subséquentes sur les résultats des vétérans en matière d'emploi.

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Table of Contents

| | |
|--|----|
| Executive Summary | 3 |
| Acknowledgements | 5 |
| Résumé | 6 |
| Remerciements | 8 |
| Table of Contents | 9 |
| 1.0 Introduction | 10 |
| 2.0 Method..... | 11 |
| 3.0 Results | 12 |
| 3.1 Literature Review on Veteran Labour-Market Outcomes..... | 12 |
| 3.1.1 Canada..... | 12 |
| 3.1.2 Other Countries..... | 19 |
| 3.2 Life After Service Studies | 24 |
| 3.2.1 Demographic and Service Characteristics | 25 |
| 3.2.2 Labour-market Indicators | 25 |
| 3.2.3 Labour Force Participation..... | 27 |
| 3.2.4 Medical Release | 29 |
| 3.2.5 Females..... | 31 |
| 4.0 Discussion..... | 32 |
| 5.0 Conclusion | 35 |
| 6.0 References..... | 35 |
| Appendix A: Literature on Labour-Market Outcomes of Veterans..... | 42 |
| Appendix B: LASS Labour-Market Measures..... | 67 |
| Appendix C: Employment Assistance Programs for Veterans in Canada and the US | 70 |
| Appendix D: LASS Detailed Tables | 72 |

1.0 Introduction

The vast majority of Canadian Armed Forces (CAF) personnel work after release from the military. In addition, employment is important to health and well-being (Waddell and Burton, 2006) and adjustment from military to civilian life. Analysis of the Life After Service Study (LASS) data found that Veterans who were not working were more likely to report difficulty adjusting to civilian life than those employed (MacLean *et al*, 2014).

The difficulties experienced by Veterans who were medically released and/or in receipt of a disability pension from Veterans Affairs Canada (VAC) came to light in the late 1990s. Studies and reviews, including the DND Stow report – A Study of the Treatment of Service Members Released from the Canadian Forces on Medical Grounds (1997) and VAC's Review of Veterans Care Needs (RVCN) Part III, indicated that VAC's approach to meeting the needs of its CAF clients, which consisted of monthly disability pension and piecemeal health care via the disability pension gateway, was failing as it encouraged a continued state of illness and dependence. VAC studies based on the 1999 VAC CAF client survey, conducted for the RVCN Part III, found that this group of disability pensioners' transition to civilian life was affected by chronic pain, permanent disabilities, operational stress injuries, inadequate education, poor job prospects, family stress, low income, and lack of recognition.

Since the late 1990s, many improvements were made to benefits and services offered to CAF personnel in the areas of pre-retirement planning, transition to civilian life, and re-establishment. At the same time, beginning in the late 1990s, CAF personnel experienced steady increases in earnings while civilian earnings have remained constant (Park, 2008). One of the improvements to services was the offering of a transition interview by VAC to all releasing CAF members starting in June 2004. The intent of these interviews is to determine the type and level of support that a CAF member and/or family member may require. The Transition Interview is generally conducted just prior to release and includes questions related to employment plans.

Notwithstanding concerted efforts to improve the transition to civilian life for CAF personnel and families, research and gaps in programs and services called for fundamental changes for VAC to fulfill its re-establishment mandate; and on April 1, 2006, the New Veterans Charter was implemented (Canadian Forces Members and Veterans Re-establishment and Compensation Act 2005). The new programs and services aimed to help CAF Veterans successfully make the transition into civilian life through rehabilitation and re-integration programs. Employment was recognized as important to successful transition to civilian life in the New Veterans Charter (NVC), which includes Career Transition Services and Vocational Rehabilitation.

More recently, VAC has been partnering with various organizations on initiatives pertaining to the transition of Veterans to employment. These include: (1) The Military Employment Transition Program - VAC, CAF and the not-for profit organization Canada Company are in the process of creating a new "one-stop shop" that will incorporate the Hire-a-Veteran program currently managed by VAC; (2) Job Bank

search filter – work has been completed between VAC and Employment and Social Development Canada (ESDC) to include “Veterans of the Canadian Armed Forces” as a filter on the website’s job search page. Employers can select the “Veterans” indicator when creating a job ad to show their interest in hiring Veterans, thus allowing Veterans to search for those jobs; and (3) True Patriot Love Foundation (TPL) and The Veterans Transition Advisory Committee (VTAC) – VAC Research Directorate has been collaborating with VTAC on this work. They released an interim report in 2013.

In addition to developing these partnerships, the government has been trying to improve the access to public service employment among Veterans. On November 7, 2013, the government announced that medically released CAF Veterans, both Regular Force and Reserve Force, who are injured in service to Canada, will be given the top level of priority consideration for openings in the federal public service and the duration of access will increase to five years (versus the current two years), allowing them a longer period of priority consideration for positions. Bill C-27 allowing this improved access to public service employment was passed in July, 2015. Former Minister of Veterans Affairs (Erin O’Toole) appeared before the senate sub-committee on Veterans Affairs in 2015 and spoke of three prongs of success for transitioning out of the Canadian Armed Forces: health, family wellness and career transition and suggested that if any one of those three doesn't go well, it affects the other two. He also spoke of the opportunity for the public and private sectors to work together to create a “hire- a - Veteran” culture.

Employment is an important determinant of health and the LASS has found that employment is also important in adjustment to civilian life. A 2014 review by the senate subcommittee on Veterans Affairs on transition to civilian life recommended that the Life After Service Studies (LASS) program of research continue and that a LASS study on Veterans’ employment post-release be initiated in the near future. Most of 14 recommendations were related to employment and included: further research on Veteran employment through LASS, strengthening VAC/DND transition programs and services and enhancing private sector employment opportunities for Veterans.

This study examines the literature on Veteran employment and indicators captured in LASS in order to inform further research on Veteran employment and the development of an employment strategy.

2.0 Method

The objectives of the study were to examine: (1) Veteran labour-force outcomes in Canada and elsewhere; (2) the characteristics of the populations with various types of labour-market outcomes; and (3) effective interventions and best-practices in improving labour-market outcomes. This was done through a literature review of and further examination of labour-market information from LASS 2010 and 2013.

The literature review included studies identified through a search of Research Alerts from VAC’s library and the Research Directorate’s extensive reference database (over 3,800 citations as of February, 2015). VAC’s library scans the published literature on Veteran research using major databases. These Research Alerts date back to 2008 and a

search on “Veterans” and “employment” produced over 200 abstracts. Only studies that examined Veteran labour-market outcomes were included in the review. The review also included studies conducted by VAC related to best-practices in disability compensation and workforce reintegration. The literature review screened in 75 studies related to Veteran employment outcomes: 22 from Canada and 53 from other countries. Most of the reports and studies from other countries reviewed were from the US (47), four from the United Kingdom, one from Australia and one from New Zealand. See Appendix A for a summary of the literature on labour-market outcomes of Veterans.

The examination of labour-market information from LASS 2010 and 2013 included Regular Force Veterans released from 1998 to 2012 (up to 2011 for the Income Study). Outcomes examined included a wide range of indicators from both the Income Study and the Survey on Transition to Civilian Life. Indicators from the Income Study included changes in income, earnings and pension from the year pre-release compared to the first three years post-release. Indicators from the Survey on Transition to Civilian Life, a cross-sectional survey, included labour-market activity, work satisfaction and transfer of skills from military to civilian work. Since main activity in the year following release was not captured on the 2013 survey, 2010 data was analysed. Many service characteristics such as length of service and occupation at release were included in LASS 2013 using DND administrative data. A complete list of labour-market related items covered by the LASS 2010 and 2013 is provided in Appendix B. The LASS 2013 Income Study found that both medically released and female Regular Force Veterans experienced relatively large reductions in income post-release, ten times the average reduction. Therefore, income and employment among these groups was examined in more detail.

3.0 Results

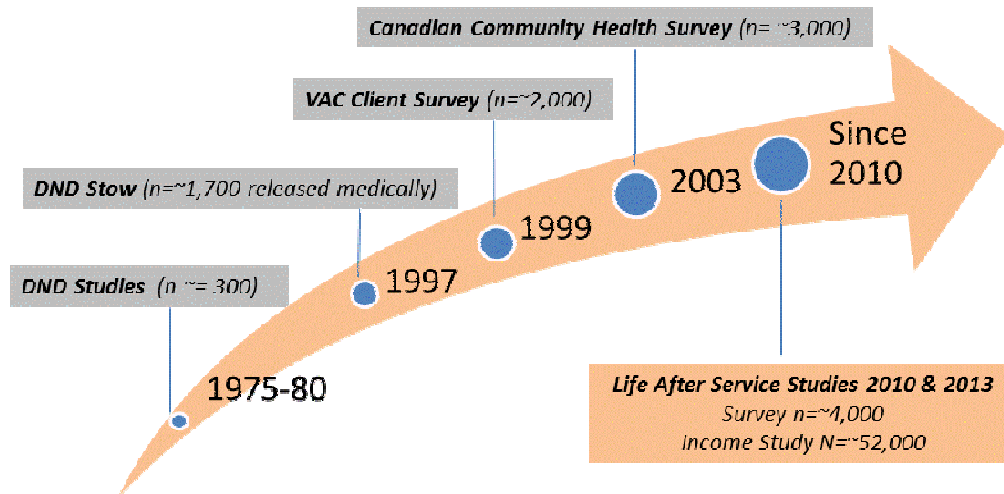
3.1 Literature Review on Veteran Labour-Market Outcomes

3.1.1 Canada

The literature review revealed that since the 1970s, the scope of research and populations studied in Canada has broadened over time (Figure 1). Since this time there have been five main data sources of Veteran population data containing labour-market information. Two studies conducted by DND in the late 1970s included a broad population of recently-released Veterans but the sample size was fairly small due to low response rates. In 1997, another DND study examined a much larger sample of Veterans (about 1,700) but included only those who were medically released. In 1999, VAC commissioned a survey of clients who served after the Korean War. Again, while the number of respondents was quite large (about 2,000) but VAC clients accounted for less than 20% of the Veteran population. In 2003, Veterans were identified in the Canadian Community Health Survey through a series of questions of their service. About 3,000 post-Korean War Veterans were identified on this survey. In 2010, VAC, DND and Statistics Canada partnered on the Life After Service Studies. In 2010 and 2013, these studies included a survey and a tax record linkage (Income Study). These studies include a broad population of Veterans released since 1998. The 2013 survey

included over 4,000 respondents who released from the Canadian Armed Forces (Regular Forces and the Reserves) from 1998 to 2012. The 2013 Income Study represented a population of about 52,000 who released from the Canadian Armed Forces Veterans from 1998 to 2011.

Figure 1: Veteran Population Data Sources Containing Labour Market Information



In Canada, research on the role of employment in transition to civilian life dates back to at least the 1970s. A DND proposal for research into military to civilian transition in Canada (Pinch, 1975) argued that there was evidence to support that offering a smooth transition to civilian life can have a positive impact on the CAF's ability to recruit, motivate and retain military personnel. At the time, the adequacy of assistance given to long-term service personnel in preparing them for civilian employment was being seriously questioned. The proposal outlined the 10 factors associated with re-establishment, many related to post-service employment: 1. skills transferability; 2. education; 3. rank; 4. length of service; 5. age; 6. part-time non-service employment; 7. geographical location of release; 8. commitment to the military sub-culture; 9. family circumstances; and 10. individual orientations and motivations regarding a civilian career.

The subsequent three studies related to re-establishment in civilian life all focused on civilian employment. The first study (Pinch and Hamel, 1977) provided results of stage one of a two-stage study proposed in the 1975 report. This study surveyed released military members (n=238 privates to colonel) and found perceived deficiencies in the civilian employment program [the Civilian Employment Assistance Programme], long-term members whose careers have been predominantly in the uniquely military occupations are most acutely affected by low skills transferability and the most likely to feel cut-off from the civilian community; and, there were generally low levels of preparation for civilian life and unrealistic expectations. Stage two results were published in a second report by Pinch and Hamel (1978). This study found that the

majority of those surveyed had made a reasonably successful transition to civilian life (n=122 followed pre-and post-release and n=322 surveyed after release), but there was a significant minority of between 35% and 40% who had met with serious barriers in transferring and translating their military skills and general service experience. In 1980, the CAF built a broader framework for analysis of mid-career transition (Pinch, 1980). This framework included social, psychological and economic determinants of successful transition from the perspective of the individual, society and the military. The study included two perspectives of successful transition: societal (employment, income, and status continuity or better); and individual (the absence of or minor perceived difficulty in job entry and perceived identity or adjustment problems and perceived continuity of job, financial and family situations).

There was a lull in research on transition to civilian life between the early 1980s and the late 1990s. In 1997 the DND Stow report – A Study of the Treatment of Members Released from the CAF on Medical Grounds surveyed Veterans who were medically released from 1992 to 1996 (n=1,722). In terms of planning for civilian employment the study found that most (70%) attended a Second Career Assistance Network (SCAN) seminar or workshop before release; about half (47%) reported having an interview with a Personnel Selection Officer or other staff member concerning planning and preparation for a second career; and some had taken training courses in preparation for a second career. In terms of employment after release, over half (55%) reported that their medical condition had prevented them from being employed since their release and their employment status at the time of the survey was as follows: almost half (49%) were working, the remainder were unemployed and looking for work (19%); unemployed and not looking for work (20%); students (6%) and home-makers (7%). Many (40%) reported that skills and experience acquired in the military helped them get a job and 20% acquired the necessary training/education after they became aware that they would be released, or after they were released from the CAF.

In 1999, as part of VAC's Review of Veteran Care Needs project, a survey of VAC Canadian Armed Forces (CAF – post Korean War) clients was conducted. Four studies based on this survey were commissioned by VAC. All examined some aspect of transition to civilian employment. The first study, Marshall (2000), examined employment, career and retirement planning of these VAC clients. This study found that among Veterans not employed, the majority were not seeking employment. The second study, Marshall (2004), examined how education is associated with the socioeconomic status of VAC's CAF clients. The study found that many VAC CAF clients had low levels of education. Older VAC clients were more likely to have entered the service with lower educational attainment than younger, more recent entrants and education had a strong relationship to personal income. The third study, Marshall (2005a), compared VAC CAF clients who had been discharged from service for medical and for non-medical reasons. The study found that those who medically released were less likely to report having ever worked in civilian jobs after release and were more likely to report either being unemployed or inactive in the labour market at the time of the survey. They were also less likely to report satisfaction with current or anticipated income and investments. The fourth study, Marshall (2005b), examined the need for planning prior to discharge, as only 60% of clients reported making active plans for post-release civilian life. This study found little readiness, and less in those medically released than those with a non-

medical release. It also found that older, married, and more highly educated respondents were more likely to be prepared than those Veterans who were younger, not married and had lower education.

The 2003 Canadian Community Health Survey (CCHS) of the general Canadian population included a series of questions to identify Veterans living in Canada. This survey is the sole source of demographic and well-being information representative of the entire population of CAF Veterans who did not serve in World War I, World War II or the Korean War. A recent study (MacLean *et al*, 2013), conducted by VAC in collaboration with Statistics Canada, examined the well-being of CAF Veterans who served post-Korea and released prior to 2003 compared to other Canadians. This study found that the majority of CAF Veterans (69%) worked in the week prior to the survey. The rate of working for CAF Veterans was the same as that of other Canadians (69%). However, female CAF Veterans (62%) had higher rates of working than other Canadian females (56%) while rates were the same for male Veterans and Canadian males (69%). Older male CAF Veterans had lower rates of working compared to other Canadian males of the same age (80% versus 86% for age 40-59 and 32% versus 37% for age 60 to 85). Rates for younger Veterans (aged 20-39) were not significantly different from that of other younger Canadian males (88% versus 85%).

A literature review conducted a few years after the NVC was implemented in 2006 (Thompson and MacLean, 2009) found that best-practices in the management of disabilities include interventions that: begin soon after the onset of a physical or mental impairment; employ a case manager to coordinate care; seek to optimize treatment of physical and mental impairments so as to prevent or minimize long term impairment; remove or minimizes physical and social environmental barriers to full participation in life; and improve the individual's ability to manage their disability and improve function in activities of daily living, family and social roles, work and leisure, and community participation. This verified that VAC's approach under the NVC was consistent with best practices in the management of disabilities, confirmed the importance of case management in the management of chronic health impairments and disabilities and underscored the need for very early intervention with CAF members before they are released.

Best practices have also been examined more specifically in workplace reintegration among Veterans with mental health conditions (Van Til *et al*, 2013). Three major categories emerged from this comprehensive literature review: Return to Work, Supported Employment, and Reintegration. A model originally developed to describe the factors that bear on return-to-work of persons with musculoskeletal disorders was adapted to examine workforce reintegration of Veterans with mental disorders and include four systems: workplace (military service to civilian work); personal (Veteran with mental disorder); health care (including Operational Stress Injury clinics); and compensation (VAC legislation and programs). The authors clarified that VAC clients are not returning to the same (military) workplace often referred to as return-to-work (RTW), but rather entering the civilian workforce over which he/she has no control or workplace reintegration. While workplace reintegration can be more difficult, the study found that people with mental health conditions can return to work after a prolonged absence; a reduction of symptoms is not required prior to seeking work; and return-to-

work can improve mental health. The authors noted that the most promising intervention for work was Individual Placement and Support¹ or supported employment.

Two recent VAC studies examined best-practices in disability compensation and the role of the labour market. MacLean and Campbell, 2014 reviewed the literature and found that the adequacy of compensation is typically measured in terms of earnings replacement rates. They, however, found that more recent studies have compared the earnings of injured workers to uninjured control groups, thereby more accurately reflecting actual earnings losses over time. This study also found that while income adequacy is a goal of many disability compensation schemes, the generosity of benefits can be a financial disincentive undermining employment goals, ultimately impacting the effectiveness and affordability of the program as well as client well-being. The literature review looked at a number of studies – both national and international, Veteran and general population – reported a negative connection between more generous benefits and employment outcomes. They found that successful employment strategies improve program affordability, income adequacy and, ultimately, well-being. In response to this, over the last decade, most Organization for Economic Co-operation and Development (OECD) countries have tightened access to benefits while improving employment integration. The second study in this area (MacLean and Pound, 2014) examined approaches to disability compensation in worker compensation in Canada and for Veterans in the UK and Australia. This study found that, unlike the VAC economic loss benefits, other jurisdictions use approaches to compensate for earnings loss which recognize varying degrees of work capacity and are designed to encourage labour market engagement. This same study found that the United Kingdom's earnings loss benefits are adjusted to provide more for younger Veterans recognizing their steeper earnings trajectory.

Two studies suggest the need to consider whether NVC programs are reaching Veterans in need. The first examined the Career Transition Service Program (CTS)² and found that while participant satisfaction was generally high for similar programs in other countries, little was known about the ultimate impact on employment (MacLean, Sweet and Poirier, 2011b). The authors suggested that additional cycles of LASS would allow for the measurement of program effectiveness. In terms of program reach, they found that while 17% of Veterans released from the CAF were participating in CTS, up to an additional 16% had a high to moderate need but were not being reached by the program. This includes 11% that had a high need (low income and/or unemployed) and 5% with a moderate need (employed but dissatisfied with their work). Veterans with the greatest need of CTS were found to be younger, to have served for shorter periods of time and to have released medically or involuntarily. The second study examined Veterans who

¹ Individual Placement and Support has a defined set of 6 principles: (1) the goal is competitive employment; (2) admission is based on the desire to work, no exclusions based on symptoms or work readiness; (3) rapid job searches are initiated that avoid preplacement training; (4) mental health and vocational services are integrated within a single team; (5) attention is on consumer preference rather than providers' judgments; and (6) follow-up support is time-unlimited and individualized.

² CTS is part of the New Veterans Charter (NVC) suite of programs and provides individual career counselling and job finding assistance.

were not in the labour market (Keough *et al*, 2015) and found that almost one-quarter (22%) reported they were on disability and many were not satisfied with life. The authors suggested that this group could benefit from interventions such as VAC's Vocational Rehabilitation program or other employment supports.

Three studies examined income including labour-market earnings and benefits and have implications for compensation and the role of labour-market earnings. In particular these studies examined the degree to which Veterans were able to replace their pre-release level of income or the "income replacement rate" calculated as post-release income divided by income in the year prior to release. The first study found that after nine years post release, on average medically released Veterans recovered less than 80% of their pre-release incomes while non-medically released Veterans had an income replacement rate of 110% (MacLean, Sweet and Poirier, 2011a). A second study found that younger Veterans in receipt of disability benefits experienced economic losses, while those older at release (aged 55 or older) had virtually no economic losses. (MacLean, Van Til and Poirier, 2016a). This study also found income replacement rates varied considerably among those without disability benefits and by disability rating, suggesting factors other than disability play a role in earnings capacity. A third study found that Veterans who completed the VAC Rehabilitation program³ had recovered about 75% of their pre-release income and less than half (about 40%) of their pre-release labour-market earnings (MacLean, Van Til and Poirier, 2016b). Further, those who completed vocational rehabilitation had similar recovery of labour-market earnings but lower recovery of total income compared to overall Rehabilitation program clients.

In addition to the New Veterans Charter programs of Career Transition Service and Rehabilitation, there are many other employment support programs available to Veterans. The Veterans Transition Advisory Committee (VTAC) identified 18 employment assistance programs provided by government and non-government organizations (VTAC, 2013a, see Appendix C for details). One program focuses mainly on fundraising (True Patriot Love) rather than providing employment services. Five programs (SISIP Vocational Rehabilitation Program, VAC Rehabilitation Program, Veteran Transition Program, Wounded Warriors and PTSD Coach Canada) are exclusively for disabled Veterans. Four programs were found to only be available in either Ontario (Algonquin College, Treble Victor Group) and British Columbia (British Columbia Institute of Technology (BCIT) and Northern Alberta Institute of Technology). Two programs work with employers: CFLC supports employers of reservists and the Hire-a-Veteran Program is a partnership between VAC and employers to encourage the hiring of Veterans. Six programs were found to provide employment services to a broad population of Veterans, with and without disabilities, on a national basis namely: Canada Company (MET); Career Transition Assistance Program (SCAN provided by

³ The Rehabilitation Services and Vocational Assistance program (Rehabilitation program) includes medical/psycho/social rehabilitation and case management provided to medically released Veterans or Veterans experiencing barriers to re-establishment to civilian life related to service. About one-quarter of Rehabilitation clients are referred to vocational rehabilitation which is provided by a contractor. Veterans participating in the program receive Earnings Loss benefits at a rate of 75% of pre-release earnings. If deemed Totally and Permanently Incapacitated (TPI) for work Earnings Loss benefits may continue to age 65.

DND); Helmets to Hardhats; Prince's Operational Entrepreneur; Prospect (Forces@Work); and the Veterans Transition Program.

Federally, in addition to VAC/CAF programs, ESDC is also supporting Veterans in the civilian labour-market. In addition to partnering with VAC to identify Veterans on Job Bank, ESDC has been supporting Veterans in the transfer of their skills to the civilian labour market. ESDC also provided funding to BCIT to develop the National Advanced Placement Prior Learning Program for Military Veterans which aims to help CAF Veterans transition from military service to the civilian labour market by gaining employment opportunities equivalent to their skills and work experience. The program will also be expanded to other post-secondary institutions across Canada. ESDC also supported the industry-led development of occupational standards for aviation maintenance technicians. This resulted in industry and the CAF collaborating on training, with a key result being employer recognition of the skill sets of Veterans transitioning to the civilian aviation sector. In terms of employers, VTAC examined the attitudes towards hiring Veterans in a survey of 850 corporate human resources departments in Canada (VTAC, 2013b). This survey found that less than half of Canadian employers think that promoting the hiring of Veterans reflects well on their company (45%) or agreed that Veterans make stable, long-term employees (43%). Many (35%) felt that their organization did not need to make any special effort to recruit Veterans and in fact most (73%) reported that their organization did not have a Veteran-specific hiring initiative.

Labour-market outcomes were examined in the broader context of adjustment to civilian life in MacLean *et al*, 2014. This study found that post-military adjustment to civilian life appears to be multidimensional and related to many factors including health, disability, income, social support, employment, sense of community belonging, etc. One-quarter (25%) of Veterans reported a difficult or very difficult adjustment to civilian life, 62% reported an easy or very easy adjustment and 13% reported neither easy nor difficult. Veterans who were employed were less likely to report a difficult or very difficult adjustment to civilian life, 21% compared to 25% overall. Veterans who were satisfied with their job or main activity (17%) were also less likely to report a difficult adjustment to civilian life. Compared to the overall rate of difficult adjustment (25%), those who were unemployed (38%), unable to work (75%), not in the labour force (31%) or were neither satisfied nor dissatisfied with their job or main activity (39%) or dissatisfied (64%) had higher rates of reporting difficulty.

Similarly, labour-market outcomes were examined as part of a broader examination of disability in Thompson *et al*, 2014. This study found that among Veterans working, about one-third (35%) experienced participation and activity limitations at work sometimes or often, compared to 13% among Canadians after adjusting for age and sex.

The role of occupation and rank in six⁴ employment and income outcomes was examined by MacLean *et al*, 2016. This study found that while most Veterans served in

4 i. Unemployment (not employed and looking for a job) ii. unable to work (reported being permanently unable to work) iii. job dissatisfaction (dissatisfied or very dissatisfied with job or main activity) iv. military experience mismatch (among those employed, disagree or strongly disagree that their military

occupations comparable to those found in the civilian labour market, more than one-third of Veterans were in occupations that are unique to the military, the majority of whom were in the combat arms. Particularly at risk among those in unique occupations were privates/recruits (unemployment) and junior NCMs (unable to work, military experience mismatch, low income and dissatisfaction with financial situation). Regardless of occupation type, privates or recruits were worse off for military experience mismatch, low income and dissatisfaction with financial situation while junior NCMs were worse off for job dissatisfaction.

3.1.2 Other Countries

United States

The literature reviewed included the labour-market outcomes of Veterans who served in Vietnam and Iraq/Afghanistan and during various eras of service, for example post/911. Vietnam Veterans were found to have similar levels of employment and income as non-Vietnam Veterans (Centre for Disease Control, 1988). Vietnam Veterans were also found to have similar levels of satisfaction and occupation attainment to those who served elsewhere and civilians (Vogt, 2004). Later, military members who served in the early 1980s were found to be paid considerably more than comparable civilians while in the military and after release, these Veterans had higher employment rates (Angrist, 1998). Post/911 Veterans have been found to have higher unemployed rates (US Bureau of Labour Statistics, 2014) and lower employment rates but had higher earnings than non-Veterans (Kelykamp, 2013b). Younger recent Veterans, aged 25 to 32 in 2010, were found to have similar employment rates, earnings and job satisfaction rates as non-Veterans (Routon, 2014).

While some Veterans outperform non-Veterans in the labour-market, many groups are typically at a disadvantage (Kleykamp, 2013a). For example, when compared to their civilian counterparts, black WWII Veterans were found to have higher earnings after release (Teachman and Luckey, 2004) and more recently, young military members (aged 29 to 36 in 1994) from disadvantaged backgrounds were found to have higher earnings while serving (Teachman and Luckey, 2007). On the other hand, post/911 female Veterans were found to suffer a steeper employment penalty than male Veterans (Kleykamp, 2013b). White female Veterans (Cooney, 2003; Teachman and Luckey, 2007), and younger female Veterans (Prokos, 2000) were found to have lower earnings relative to their civilian counterparts. Combat exposure was also found to be related to job loss and unemployment (Prigerson *et al*, 2002).

The labour-market outcomes of recent Veterans may reflect the hiring practices of employers. While employers were found to often view hiring Veterans as good business particularly given their leadership and teamwork skills, along with character and discipline, some concerns from employers were also noted. These concerns included difficulty with translating military experience to the civilian workplace and the effects of combat stress including PTSD (Harrell and Beglass, 2012).

experience helped them in their civilian career) v. low income (below Low Income Measure) vi. dissatisfaction with financial situation (dissatisfied or very dissatisfied)

Other Veterans who may have negative labour-market outcomes are those experiencing disability. Significant differences in employment were found between Veterans with and without a disability but not between Veterans and non-Veterans with a disability (Smith, 2014). Both psychiatric conditions and neurobehavioral symptom severity were significantly associated with unemployment among Afghanistan/Iraq Veterans (Pogoda *et al*, 2014). One study examined the extent to which Veterans with a psychiatric diagnosis received employment services and the types of services they received (Abraham *et al*, 2014). The study found that patients with schizophrenia and bipolar disorder were more likely to receive any employment services and to receive supported employment than were patients with depression, PTSD, or other anxiety disorders. Patients with depression and PTSD were more likely to receive transitional work and vocational assistance than patients with schizophrenia. A 2008 study found that Veterans with PTSD were 19% less likely than Veterans without a PTSD diagnosis to be employed at discharge from the military (Resnick and Rosenheck, 2008). Three subsequent studies found that improvements in mental health (e.g. decreased depression or no longer meeting diagnostic criteria for PTSD) increased either the likelihood of employment and/or work-related quality of life (Smith, 2005; Ziven *et al*, 2012; Schnurr and Lunney, 2012; and Burnett-Zeigler *et al*, 2011). Treatment for substance use disorders has also been found to improve employment outcomes (Humensky *et al*, 2013).

In addition to interventions aimed at improving mental health, interventions such as benefits counselling, work experience programs and strength-based case management have been found effective in improving labour-market outcomes. Veterans receiving benefits for a service-connected psychiatric condition who received benefits counselling worked significantly more days than Veterans without counselling (Rosen *et al*, 2014). Similarly, Veterans with substance abuse disorders had a higher employment rate if they completed a hospitalization program, participated in a Veterans Industries work-for-pay program and received drug-free supportive housing (Kerrigan *et al*, 2000). Veterans, with co-morbid psychiatric and substance use disorders, who participated in a transitional work experience program were more likely to engage in paid activity, to work more total hours, to work more weeks and to earn more in total wages than those who participated in a job placement program (Penk, 2011). Veterans in substance abuse treatment who received strengths-based case management had improved employment outcomes (Siegal *et al*, 1996). Another study of Veterans in substance abuse treatment and compensated work therapy found that those who were given an extra cash incentive to meet clinical goals were more engaged in more job-search activities, were more likely to obtain competitive employment, and earned an average of 68% more in wages (Drebing *et al*, 2005).

Three studies examined the US Veterans Affairs (VA) Rehabilitation program. About half of Veterans who entered the Rehabilitation program in 2003 and received employment-related services were found to have been placed in suitable jobs, one-third left the program, and most of the others were still participating in 2012, almost 10 years later. Veterans were found to face numerous challenges that affect their ability to obtain employment, especially related to mental health conditions, working with multiple counselors over time, and civilian employers' limited understanding of military work experience (GAO, 2014a). However, many participate for reasons other than

employment. Among Veterans who participated in the VA rehabilitation program, competitive employment was a goal of only 53% and was the primary goal of only 5% (Drebing *et al*, 2004). In 2005, the GAO found that the VA has taken steps to expedite vocational rehabilitation and employment services for service members returning from Afghanistan and Iraq with serious injuries. They also found that that VA did not have a policy for maintaining contact with those with serious injuries who may later be ready for rehabilitation services but did not initially apply.

Several studies examined Individual Placement and Support (IPS) Employment which is a defined program of supported employment. Supported employment programs encourage clients to get placed in competitive employment first and then receive intensive on-the-job support which differs from traditional vocational rehabilitation programs which are based on a “train-then-place” approach. Davis *et al* (2012) compared IPS with a Veterans Health Administration Vocational Rehabilitation Program (VRP) for Veterans with PTSD and found that after 12 months, IPS participants were 2.7 times far more likely to find employment than those who received VRP (76% vs 28%). When the IPS model was implemented among homeless Veterans, the mean number of competitive employment days per month over a two-year follow-up period was 15% higher for Veterans who participated in IPS than those in a control group (Rosenheck and Mares, 2007). A more recent study (Ottomanelli *et al*, 2014) found that Veterans with spinal cord injuries were significantly more likely to be participating in the labour force if supported employment efforts were engaged as opposed to just standard treatment. While IPS has been found to be effective in improving labour-market outcomes, there have been barriers to implementing supported employment in the US VA. Paternalistic-uninformed concerns about the ability of persons with serious mental illness to be gainfully employed and a lack of organizational structures and leadership to promote and integrate the supported employment program were found to be common implementation barriers (Pogoda *et al*, 2011). During implementation, organizations would likely benefit from a formalized educational process of teams involved in the care of supported employment clients and from leadership buy-in to the program and promotion of its significance.

Some studies looked at the potential impacts on employment amongst Veterans receiving benefits. Meshberg-Cohen *et al*, 2014 reported that many Veterans believed working would lead to loss of benefits and some (especially those with substance abuse issues), indicated they would rather turn down a job offer than lose financial benefits. Another study reported that while two-thirds of Veterans under the age of 65 were employed, only 36% of those with a VA service-connected disability rating of 50% or higher were employed (in the US, “service-connected” is used to describe a Veteran’s disability [i.e., from 10 to 100 %], with higher service-connection yielding greater disability compensation payments). In addition, those with the 50% or higher rating were also more likely to not be looking for work, suggesting that higher levels of VA compensation can create disincentives for seeking employment (Tsai and Rosenheck, 2013). An earlier study (Autor and Duggan, 2007), found that expansions to a VA disability compensation program lead to an increase in unearned income and substantially reduced labour-force participation among Vietnam-era Veterans. Veterans participating in a Veterans Health Administration compensated work therapy program

worked fewer hours, earned less income and were less likely to be employed at discharge if they were in receipt of disability benefits (Drew *et al*, 2001).

Some studies have pointed to the need for study into whether programs aimed at Veterans are effective. The General Accountability Office in the US (GAO, 2014b) identified 87 Department of Defense and Veterans Affairs-administered programs which included 18 employment assistance programs (the second most common type of program after disability benefits or services programs). See Appendix C for the full list of these programs. The GAO report notes that other federal departments such as the Department of Labor also provide employment assistance to Veterans and that concerns have been raised that no full accounting of the breadth and effectiveness of these programs exists. The Institute of Medicine (IOM, 2013) found that while unemployment and underemployment are acute problems for Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraq Freedom (OIF) Veterans and numerous programs exist to respond to the needs of these Veterans, there is little evidence regarding program effectiveness.

Despite many employment services being offered to Veterans in the US, there appear to be concerns about levels and types of support. A recent report on transition to civilian life in the US (Castro, Kintzl and Hassan, 2014) found that over a quarter of Veterans reported being unemployed and looking for work. However, over three-quarters of these Veterans reported receiving no help in finding a job. Many reported feeling betrayed by Veteran employment initiatives that ultimately did not lead to any substantial job prospects. The authors suggested that employment services must move beyond providing referrals to military employment websites, military occupation codes translator or resume builders.

United Kingdom

A 2007 study by the UK Ministry of Defence National Audit Office, reviewed the satisfaction with the Career Transition Partnership (CTP). While most were satisfied with the program, some Veterans indicated they were not aware of the program or did not participate due to work pressures. Early service leavers (who do not have access to CTP) were more likely to be unemployed and seeking work. Those not in the program reported finding employment through traditional methods such as newspaper and Internet listings, with a significant number saying a friend or colleague helped them secure their first job post-release. More than half had a job lined up immediately following discharge.

In 2014, a report from the UK entitled “Veterans’ Transition Review” also reviewed the CTP (Ashcroft, 2014). This study included survey, focus groups and interviews among recent service-leavers. The report emphasized the importance of a successful transition from military to civilian life on society as a whole and highlighted the important role employment plays in that successful transition. Ashcroft referenced employment as the key to achieving goals of independence, health, wealth and contribution to society. The report recommended targeting transition support to those most likely to have poor employment outcomes such as those who served less than four years and noted that those most likely to struggle often get the least help. The UK military ranks 5th globally

with about 22,500 releasing each year (Canada ranks about 20th with approximately 5,000 annual releases). The author, Lord Ashcroft, who holds a conservative seat in the House of Lords, is considered an expert in public opinion. His main conclusions included:

- (1) *Transition is important for the Armed Forces and society as a whole, not just the individual.* Successful transition from the Forces means higher-quality candidates wanting to join, creating a virtuous circle that helps recruitment, retention, the reputation of the Services and the drive to increase the number of Reserves. It also represents a better return on the investment the public has made in training and developing Service personnel.
- (2) *There is no shortage of provision for Service Leavers – and most do well.* A great deal is being done to support service leavers by government agencies, charities and the private sector, as well as the Armed Forces themselves including training opportunities, healthcare provision and welfare support. Most service leavers make a successful transition – the great majority who seek work find it, and few experience serious problems.
- (3) *Preparation by the individual is essential – and good information is key.* Perhaps the most important factor in a successful transition is the mindset of the individual service leaver. - there is no substitute for planning and preparation, not just in the weeks and months before leaving the Forces but over the long term. Those who start to think about their next job or home, how they will budget and other practicalities only weeks before their departure are not surprisingly more likely to have problems. Information is essential to effective planning, but information is often hard to find, poorly presented and confusing. Ensuring personnel and service leavers get good information at the right time about transition and civilian life is vital.
- (4) *The service leavers most likely to struggle get the least help.* It is often assumed that the longer a service career, the harder will be the eventual return to civilian life. The truth is almost the reverse of this. Early service leavers, who have served up to four years (but may during that time have completed operational tours in places like Afghanistan), receive only the most basic support for transition and are the most likely to experience unemployment and other problems. Improving outcomes for these service leavers is essential to improving transition overall, and will be to the benefit of the Armed Forces and the country as a whole.
- (5) *Public perception of service leavers needs to be changed.* Though a small number do have problems and need special provision, service leavers as a whole begin new careers, enjoy good health and are no more likely to suffer PTSD, become homeless, commit suicide or go to prison than the rest of the population.

The Forces in Mind Trust examined the costs of poor transitions to civilian life. They estimated the direct cost to government to be £114m in 2013. Alcohol misuse had the largest single effect, with costs of £35m, followed by mental health issues (“common neurotic disorders” together with PTSD) at £26m. Unemployment accounted for £21m in benefits and forgone tax revenue. The authors noted that better employment outcomes are likely to lead to better outcomes in other areas as well, such as mental health outcomes. The report included a few recommendations related to employment including better structured support for early service leavers who get minimal

resettlement support from the Armed Forces, but are less likely to find employment and access to work placements after resettlement.

An earlier study of over 8,000 service personnel who served in the armed forces in 1991 and were surveyed in 1997 and again in 2001 (Iversen *et al*, 2005) found that the majority of service leavers were in full-time employment (87.5%). The study also found that those with poor mental health during service were more likely to leave and had a greater chance of becoming unemployed after leaving. Veterans of the Gulf War were found to have more favourable employment outcomes, provided that they came home well.

Australia

The Department of Veterans Affairs in Australia commissioned a study from the Australian Centre for Posttraumatic Mental Health which was released in 2011. This study suggested the use of employment as well as life satisfaction measures in the measurement of Australia's Veterans Affairs rehabilitation program outcomes. The report suggested employment measures such as total pay, job security, the work itself, hours of work, the flexibility available to balance work and non-work commitments, and overall job satisfaction be measured as outcome indicators.

New Zealand

Vincent *et al*, 1994 studied 573 Vietnam Veterans, examining the association between PTSD diagnoses and a range of military experience as well as current demographic variables. Employment status was one of the factors cited in the report as impacting the social adjustment of Veterans with PTSD.

3.2 Life After Service Studies

The Life After Service Studies (LASS) program of research is designed to further understand the transition from military to civilian life and ultimately improve the health of Veterans in Canada. LASS partners are Veterans Affairs Canada (VAC), the Department of National Defence/Canadian Armed Forces, and Statistics Canada. There have been two cycles of LASS (2010 and 2013). A third is being planned for 2016 and every three years following. LASS 2013 builds on the earlier studies from 2010 by including Veterans of the Primary Reserves in two major studies: a survey of health and well-being, and a record linkage to tax data for pre- and post-release income trends (Van Til *et al*, 2014). In 2016, the survey will, for the first time, be longitudinal; following respondents from the 2013 survey.

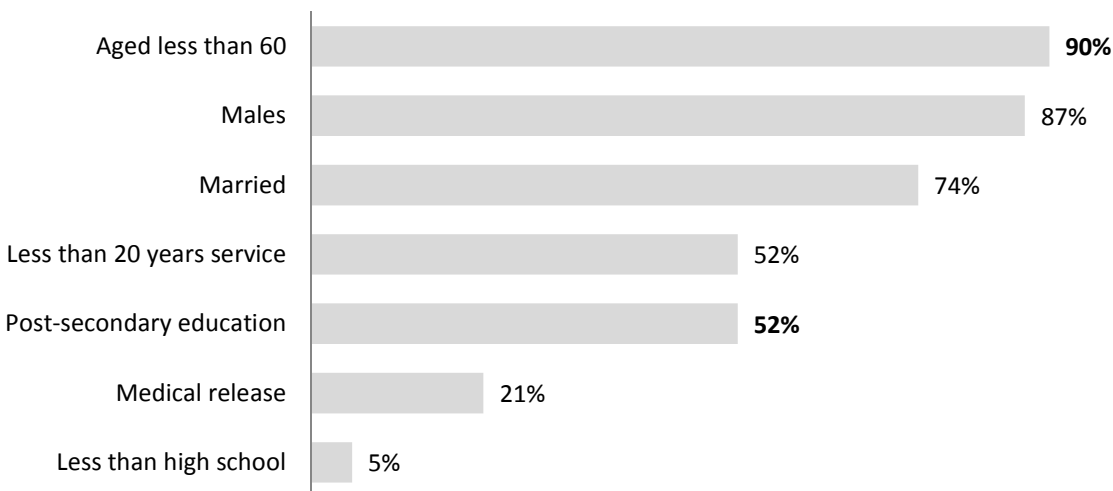
The following sections examine Regular Force Veterans from LASS 2010 and 2013. The 2010 cross-sectional survey included 3,154 Veteran respondents representing a population of 36,638 Regular Veterans released from 1998 to 2007 (Thompson *et al*, 2011). The 2013 survey included 2,329 respondents representing a population of 56,129 Regular Veterans released from 1998 to 2012 (Thompson *et al*, 2014). The 2013 income study (MacLean *et al*, 2014) started with a population of 51,990 Regular Force Veterans released from 1998 to 2011 of which 47,950 (92%) linked to income tax data in the year of release and followed for 13 years post-release and a longitudinal cohort of 32,540

whose records linked to income data in the year prior to release and each of the first three years post-release. The following sections summarize the labour-market indicators available from both the 2010 and 2013 surveys (share data of 3,154 and 2,329 respondents) and the income study cohort (details on these indicators are provided in Appendix B and detailed tables are provided in Appendix D).

3.2.1 Demographic and Service Characteristics

The mean age of Regular Force Veterans at the time of the survey among LASS 2013 respondents (2,329) was 44 (Figure 2). Most of the population was working age (less than 60) at the time of the survey. The majority released from the forces voluntarily (52%), followed by release on medical grounds (21%), service complete (16%), involuntarily (7%) and due to having reached retirement age (5%). Most were male (87%), married (74%), had less than 20 years of service (52%) and had post-secondary education (52%). As the income study covered almost the same population of Regular Force Veterans, the characteristics of the cohort were similar to those in the survey.

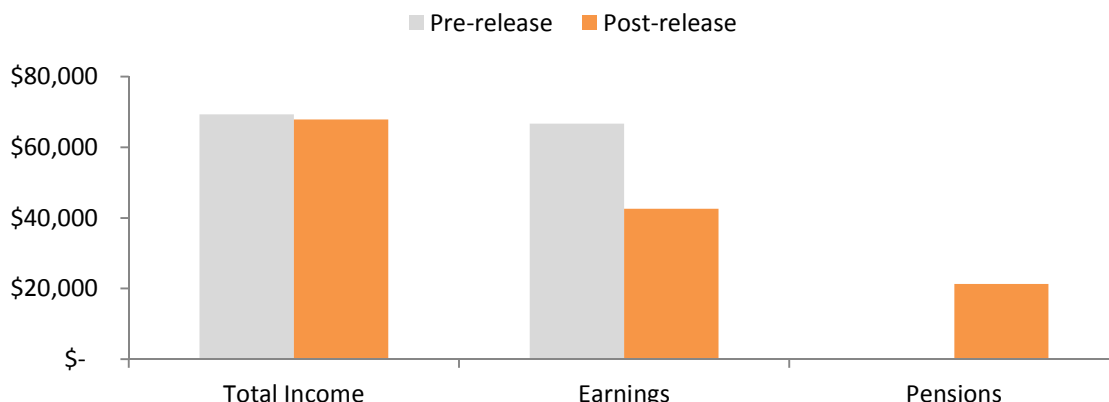
Figure 2: Demographic and Service Characteristics, LASS Survey 2013



3.2.2 Labour-market Indicators

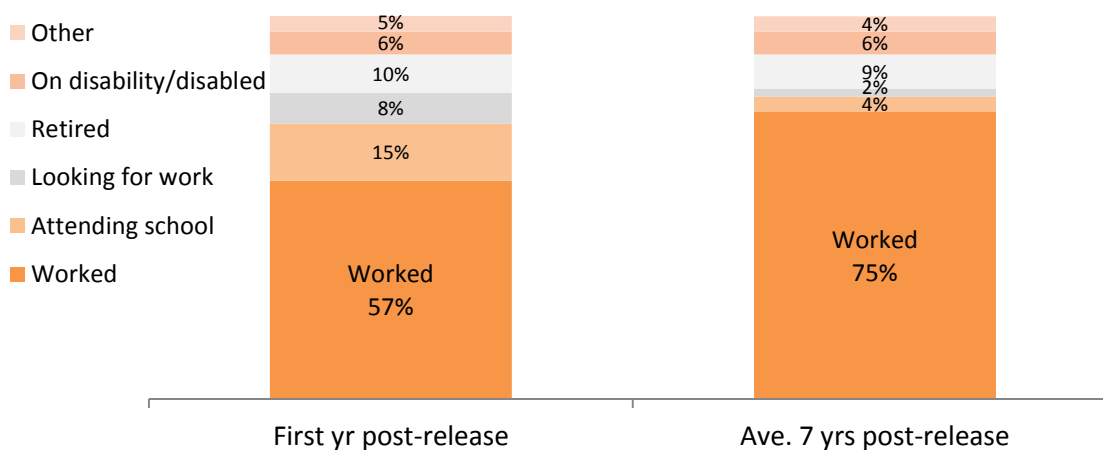
While on average earnings declined post-release, pension income offset much of this decline (Figure 3). The average total income among Regular Force Veterans released from 1998 to 2011 was \$69,300 in the year prior to release. This declined by 2% in the first three years post-release. Much of this decline was due to a decline in earnings of 36%. Pension income made up much of the difference in income post-release. Pension income accounted for 32% of pre-release earnings and almost half served for 20 years or more, the period of employment necessary for a full CAF pension annuity (for details see Table 1, Appendix D).

Figure 3: Pre- and Post-Release Income, LASS Income Study 2013



Less than two-thirds (57%) of Veterans reported that their main activity was working in the year after release (Figure 4). Among those working, about three-quarters (73%) were satisfied with their work. However, in the year prior to the survey, an average of seven years post-release, both the rate of working (75%) and the satisfaction rate with work (80%) rose. Combined, about one-quarter (23%) of the population was either attending school or training (15%) or looking for work (8%) in the year following release. In the year prior to the survey, this declined to 6%: attending school (4%) and looking for work (2%). The proportion of Veterans reporting that their main activity was retired and the proportion reporting being disabled or being on disability did not change over this period (Table 2, Appendix D).

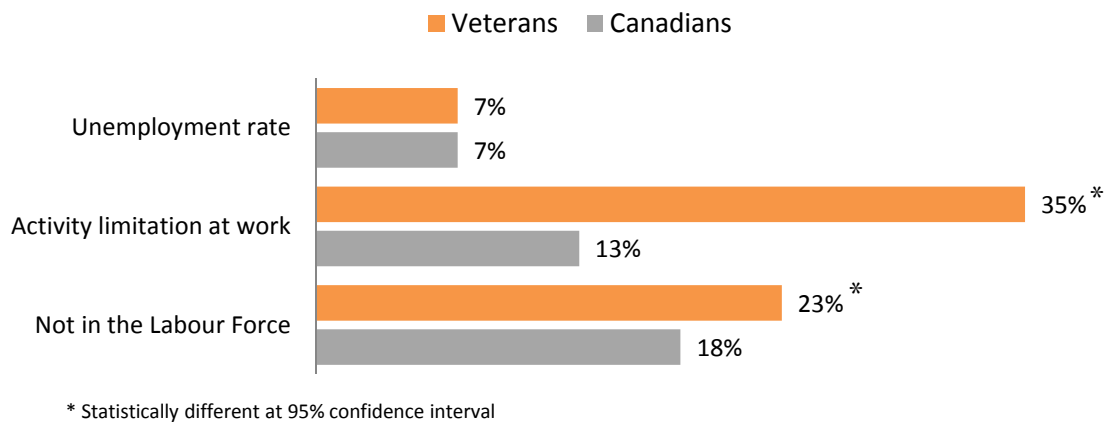
Figure 4: Main Activity, LASS Survey 2010



At the time of the survey, the unemployment rate (7%) was not significantly different from that of Canadians (Figure 5). However, over one-third (35%) of Veterans working reported activity limitations at work, compared to 13% among Canadians and almost

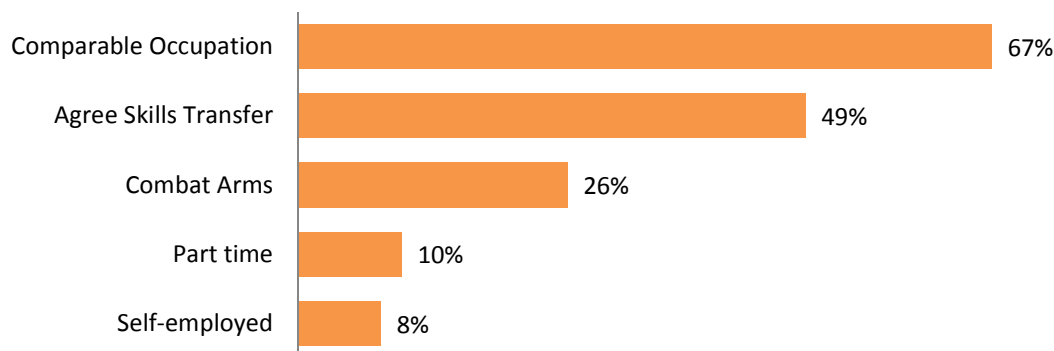
one-quarter (23%) of Veterans compared to 18% of Canadians were not in the labour market (Table 3, Appendix D).

Figure 5: Veterans Compared to Canadians, LASS Survey 2013



Among those working in the week prior to the survey, 10% worked part-time and 8% were self-employed (Figure 6). Over one-quarter (26%) were serving in the combat arms at release. Combat arms occupations are unique to the military. Two-thirds (67%) of Veterans were in occupations that had a comparable civilian occupation. Less than half of Veterans (49%) agreed that the knowledge and skills used in current or most recent job were the same as those from military service (for details see Table 4, Appendix D).

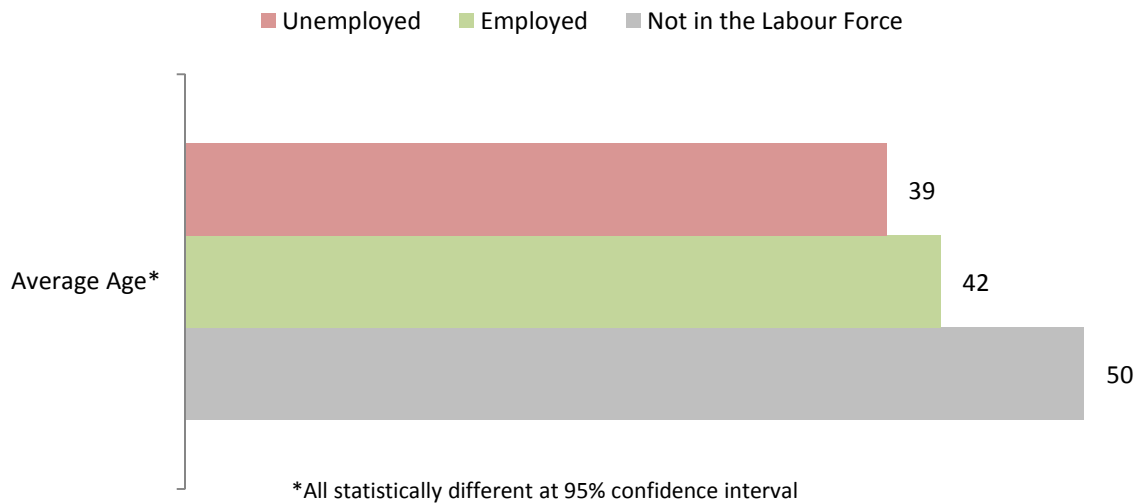
Figure 6: Occupation and Skills, LASS Survey 2013



3.2.3 Labour Force Participation

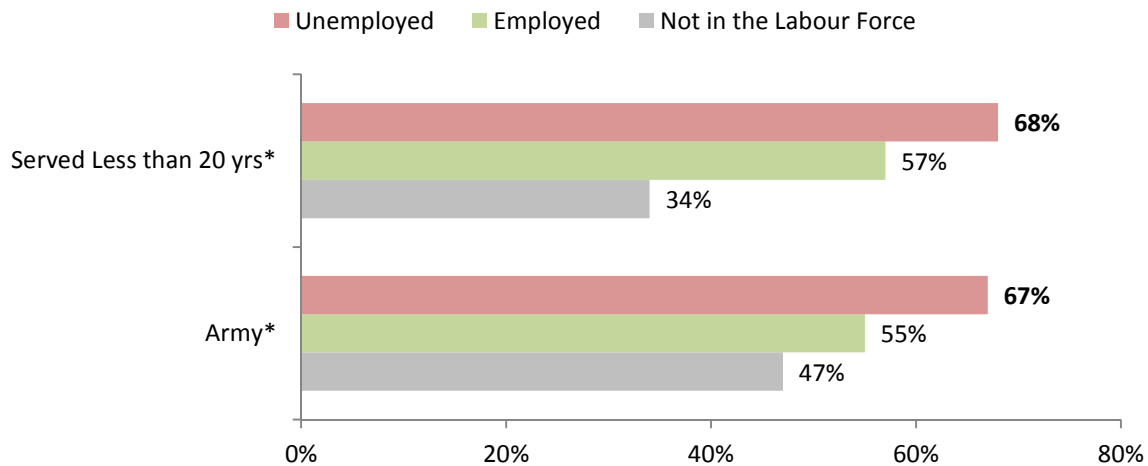
At the time of the survey, most (72%) Veterans were employed, 5% were unemployed (looking for work) and 23% were not in the labour force (not working and not looking for work). Unemployed Veterans and those not in the labour force had different characteristics and while those employed were generally better off, they did have some difficulties as well. However, both unemployed Veterans and those not in the labour force had rates of reporting a difficult adjustment to civilian life that were twice that of employed Veterans (Table 5, Appendix D). Those who were unemployed, were younger at release than both those employed and not in the labour force (Figure 7).

Figure 7: Labour Force Status by Average Age, LASS Survey 2013



Veterans who were unemployed had the fewer years of service and were more likely to have served in the Army than those not in the labour force (Figure 8). Those who were not in the labour force had the longest service. Two-thirds (66%) of those not in the labour force served for 20 years or more whereas less than half (43%) of employed Veterans served that long (Table 5, Appendix D).

Figure 8: Labour Force Status by Demographic Characteristics, LASS Survey 2013



Veterans who were unemployed were less likely than those employed to be satisfied with life (77% compared to 91%), main activity (46% compared to 80%) and finances (35% compared to 74%). Veterans who were not in the labour force were much more likely to

have been medically released (41% compared to 15%). Veterans not in the labour market were less likely to be satisfied with life (71% compared to 91%), were more than three times as likely to require assistance with at least one daily task (41% compared to 13%) and less likely to perceive their health as very good or excellent (31% compared to 60%) (Table 5, Appendix D).

While the employed Veterans were better off in many areas compared to both those unemployed and those not in the labour force, some experienced difficulties - one in five reported a difficult adjustment to civilian life and the same proportion were not satisfied with their main activity. One-quarter were not satisfied with their finances and about one in ten were not satisfied with life. Many (43%) also had activity limitations and some (13%) needed help with activities of daily living (Table 5, Appendix D).

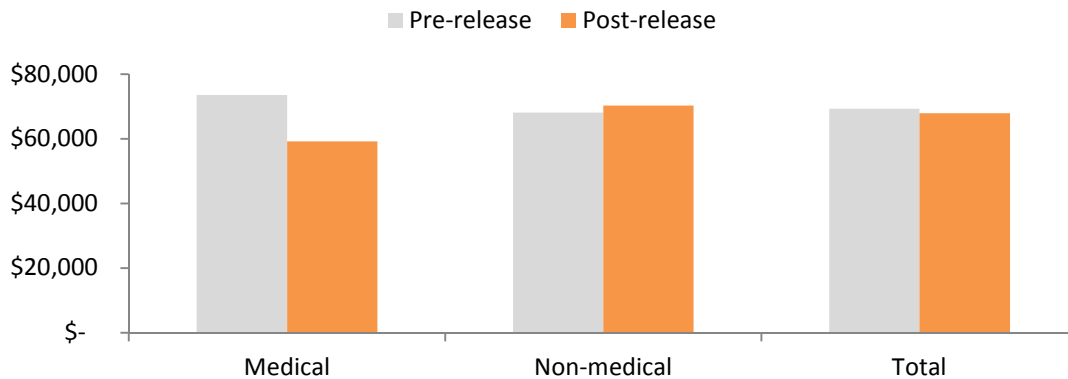
3.2.4 Medical Release

The Canadian Forces (CF) principle of Universality of Service under the *National Defence Act*, holds that all personnel must be capable at all times of performing a broad range of general military tasks, common defence and security duties, in addition to the specific duties associated with their occupations. Every member, must meet the Universality of Service standards in order to remain in the CAF. A member may be medically released if found to be disabled and unfit to perform duties as a member of the Service or in the members trade or employment. Members found not to meet the universality of service principle can remain in the forces up to three years either in an alternative occupation or on medical leave while receiving rehabilitation.

About one in five (21%) of Regular Force members released from 1998 to 2012 had been discharged on medical grounds (Table 6, Appendix D). Medically released Veterans had more than twice the rate of reporting a difficult adjustment to civilian life compared to non-medically released Veterans (53% compared to 21%). They were half as likely to have been an officer (10% compared to 22%), slightly older at release (average age of 47 compared to 43), more likely to have served for 20 years or more (55% compared to 46%) and to have served in the Army (58% compared to 53%). The level of education of medically and non-medically released Veterans was essentially the same. Medically released Veterans were more likely to have been in comparable civilian occupations (71% compared to 66%) and to have been in administrative occupations prior to release (33% compared to 22%).

While, medically released Veterans had higher incomes pre-release than non-medically released Veterans, they experienced relatively large declines in income post-release. Their incomes declined by 20% post-release compared to an increase of 3% among non-medically released Veterans. This decline was due mainly to a 59% decline in the earnings of medically released Veterans, compared to 29% among non-medically released Veterans. While medically released Veterans were more likely to have served for 20 years or more (55% compared to 46%) and the value of their pensions was higher (35% of pre-release earnings compared to 29% for non-medically released Veterans), pension income was not enough to offset the decline in earnings (Table 7, Appendix D).

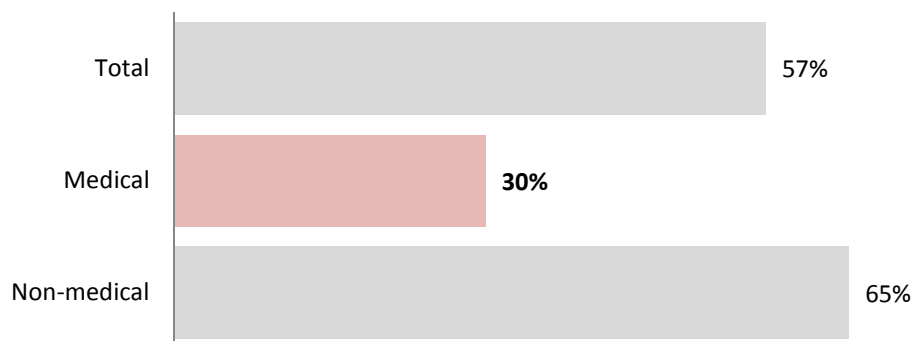
Figure 8: Total Income by Medical and Non-medical Release, LASS Income Study 2013



Medically released Veterans had lower labour market participation, 44% were not in the labour force compared to 17% of non-medically released Veterans. Few medically released Veterans were looking for work after release (6%), a rate not statically different from that of non-medically released Veterans. The unemployment rate among medically released Veterans at the time of the survey was also not statistically different from that of non-medically released Veterans (Table 8, Appendix D).

Less than one-third (30%) of medically released Veterans reported that their main activity was working in the year after release compared to 65% among those not medically released (for details see Table 8, Appendix D). While, the employment rate among medically released Veterans rose to 60% in the year prior to the survey, it rose to 80% among non-medically released Veterans. Medically released Veterans who were working were also less likely to report being satisfied with their work both in the year after release (68% compared to 74%) and the year prior to the survey (72% compared to 82%). While medically released Veterans were more likely to have been in occupations that were comparable to civilian occupations, they were less likely to agree that their skills transferred (42% compared to 51%).

Figure 9: Working Main Activity in Year After Release by Medical and Non-medical Release, LASS Survey 2013



Medically released Veterans were much more likely than non-medically released Veterans to report activity limitation (89% compared to 39%) and needing help with at least one daily activity (57% compared to 11%). Medically released Veterans also had much lower rates of reporting good or very good health (15% compared to 63%) and good or very good mental health (32% compared to 70%). Disability has been found to negatively impact labour force participation. According to the Canadian Survey on Disability, just under half (45%) of adults aged 15 to 64 with a mental health-related disability were not in the labour force (Table 9, Appendix D).

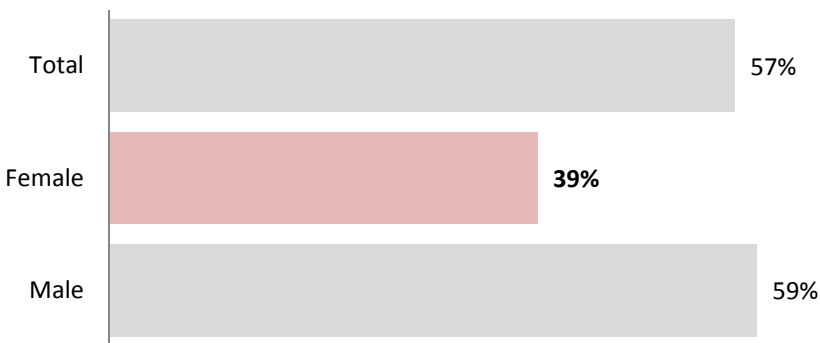
3.2.5 Females

Females accounted for 13% of the total Veteran population. About the same proportion of females and males reported a difficult adjustment to civilian life (30% and 27%). In multivariable regression gender did not predict difficult adjustment (MacLean *et al*, 2014). Females and male Veterans were on average about the same age at release (43 compared to 44). However, females were less likely to have served for 20 years or more (39% compared to 49%) and less likely to have served in the Army (40% compared to 56%). There was no statistical difference in the education levels between females and males. Females were more than twice as likely as males to have been in an administrative occupation prior to release (53% compared to 20%). Together, 87% of females were in occupations that are comparable to those in the civilian labour-market compared to about two-third of men (64%) (Table 10, Appendix D).

Females had lower incomes than males both pre- and post-release. Further females experienced relatively large declines in income post-release (for details see Table 11, Appendix D). For females, income declined by 21% post-release while it increased slightly for males (0.4%). Much of this decrease was due to a 51% decline in the employment earnings of females, compared to a 34% decline for males. At least some of the income decline was due to lower pension income among female Veterans. Females were less likely to have served 20 years or more, the point when they would become eligible for a full pension. Their pensions were also smaller relative to their pre-release earnings (26% compared to 33%).

At the time of the survey, 30% of females were not in the labour force compared to 22% of males. Females who were employed were also more than twice as likely to work part-time (25% compared to 9% for males). In the year after release 39% of females reported that their main activity was working compared to 59% of males. Females were more likely to be attending school (22%) and to report being on disability (10%) compared to males; 14% and 6% respectively. While, the employment rate among females rose to 63% in the year prior to the survey, it rose to 77% among males. Females were also more likely than males to report that their main activity was caregiving in the year before the survey (8% compared to 1%) or to report being on disability (19% compared to 6%). Females and males did not differ in their satisfaction with work both in the year after release and the year prior to the survey. While females were more likely to have been in military occupations that are comparable to a civilian occupation, they were less likely to agree that the knowledge and skills used in their civilian job were the same as those from their military service (40% compared to 51%) (Table 12, Appendix D).

Figure 10: Working Main Activity in Year After Release by Female and Male, LASS Survey 2013



While male and female Veterans had similar rates of having activity limitation, (50% and 49%), females were more likely than males to report needing help with at least one daily activity (30% compared to 19%). Female and male Veterans did not differ in their rates of reporting good or very good health (51% compared to 53%) and good or very good mental health (58% compared to 62%) (see Table 13, Appendix D).

4.0 Discussion

This study found that overall, Veteran labour-market outcomes in Canada appear quite positive. However, a subset experience difficulty. In addition, the outcomes for sub-groups of the Veteran population differed considerably. This suggests the need for targeted as opposed to universal approaches to improving labour-market outcomes. For example, although the unemployment rate among Veterans was not different from that of Canadians, unemployed Veterans had double the rate reporting difficulty adjusting to civilian life than employed Veterans, were younger with fewer years of service and were more likely to have served in the Army and less likely to have been an officer than other Veterans.

Female Veterans in Canada have been found to experience relatively large reductions in post-release income. This study found that much of this decline was due to a larger decline in employment earnings, due at least in part to lower labour force participation and higher rates of working part-time compared to male Veterans. Lower labour force participation may be related to their higher rates of disability and caregiving. Female Veterans have been found to experience higher overall disability risk (Thompson *et al* 2015; Feuerstein, Berkowitz & Peck, 1997). Females have also been found to experience a higher injury rate in initial military training (Geary, Irvine and Croft, 2002). Occupation may play also a role in the lower earnings among females. Females were found to be much more likely to have been in administrative occupations at release. On average, Veterans in administrative occupations experienced a greater decline in

earnings (-44%) compared to that of Veterans overall (-36%)⁵. More research, however, is needed to examine the role of occupation and gender in civilian earnings.

Almost one-quarter of recently released Veterans in Canada were not in the labour force, a rate that exceeds that of Canadians controlling for differences in age and gender. Evidence suggests that the vast majority of those experiencing disability (even those with severe mental health illnesses) can and do work and in fact work leads to recovery and wellbeing. While some persons have a disability so severe that they cannot work, many others would like to work but face barriers unrelated to their condition. This suggests many Veterans could benefit from employment supports and particularly the Department's Rehabilitation program, which is designed to help Veterans remove barriers to work. In fact, many Veterans who reported their main activity was being on disability have been found to have low rates of satisfaction with both life and their finances and would likely benefit from employment supports (Keough *et al*, 2015). Work reintegration is becoming a greater focus for disability compensation programs internationally and in Canada (MacLean and Campbell, 2014). In Canada, workers compensation programs have been putting a greater focus on workforce reintegration. The Ontario Workers Safety and Insurance Board (WSIB) has developed a set of evidence-based principles called "Better at Work" which includes four key principles: 1. work is important to overall well-being; 2. early intervention is key; 3. return to work enhances recovery and is part of the rehabilitation process; and 4. barriers to return to work are often inappropriately 'medicalized'. The Research Directorate developed four evidence-based key best-practices for consideration by the NVC Review in the spring of 2014 which included: 1. restructure compensation; 2. integrate recovery and work; 3. remove barriers; and 4. focus on outcomes.

Further Research

While the Veterans Transition Advisory Committee (VTAC) identified 18 employment assistance programs provided by government and non-government organizations in Canada (see Appendix C), there appears to be little evidence on whether these programs are reaching those in need and whether they are working. In fact, in the US, 18 employment assistance programs administered by the Department of Defence or Veterans Affairs alone have been identified and concerns have been raised that no full accounting of the breadth and effectiveness of these programs exists. With so many players providing various types of employment services in Canada, it's important that there is a common understanding of Veteran labour-market outcomes and who is experiencing various outcomes. In addition, further research is needed to determine gaps and duplication in services in Canada and which types of services are effective. Also, given the higher rate of not being in the labour force among recently released Canadian Veterans research is needed into whether programs aimed at those experiencing barriers to work, such as VAC's Rehabilitation program, are reaching those in need.

⁵ Income Study 2013 table of income by source and occupation groupings.

This study examined various indicators of labour-market outcomes among Veterans and identified groups at risk of poor outcomes and effective interventions for Veterans experiencing work disability. Some areas of interest for further research include factors that contribute to satisfaction with work, the role of geographic location in labour-market outcomes and the reasons female Veterans have lower participation in the labour-market.

Future Data Collection

The Life After Service Studies, conducted in 2010 and 2013, includes a longitudinal income study (tax record linkage) and a cross-sectional survey. The LASS includes many indicators of labour-market outcomes. LASS 2016 will include a longitudinal survey following-up with those surveyed in 2013. The income study measures income and sources of income as a time series from the year prior to release to up to 13 years post-release and longitudinally following the same cohort from the year prior to release to three years post-release (see Appendix B for details).

The strengths of LASS include large sample sizes of Veterans; Veteran status is identified using DND administrative data (not self-reported); and service characteristics such as length of service, rank at release and utilization of VAC/DND programs is obtained from administrative data. While opportunities to expand the labour-market information in LASS are being explored there are several limitations. First, the survey is designed as a general population health survey and as such cannot accommodate major content modules on labour-market outcomes. Secondly, LASS does not include information on Canadian Armed Forces Veterans who served prior to 1998 due to lack of availability of administrative data prior to 1998. Lastly, LASS includes only Veterans which limits direct comparisons to other Canadians.

There are several national surveys either solely focused on the labour-market or containing labour-market information. Veterans have been identified on several Statistics Canada censuses (1951 to 1971) and surveys (1988 Labour Force Survey, the 1991 Ageing and Independence Survey, the 1991 and 1995 General Social Survey and the 2003 Canadian Community Health Survey). These sources identified large numbers of war service Veterans who served in World War I, World War II and Korea. The 2003 Canadian Community Health Survey identified post-Korean War Veterans for the first time (MacLean *et al*, 2013). Interest by researchers and policy makers in identifying Veterans on national surveys and administrative data has been growing and this prompted VAC to develop a recommended short set of questions to help in this regard (Van Til, 2016).

The 2003 CCHS identified both war service Veterans and post-Korean war Veterans through a series of questions. Of the almost 118,000 respondents to the CCHS 2003 over 6,000 were Veterans - 2,742 had war service and 3,281 had served in the Canadian Armed Forces after the Korean War. Much of the LASS survey content was based mainly on CCHS as it provides many indicators of health, disability and determinants of health and allows for comparisons to the Canadians population in general. In terms of employment, analysis of this survey (MacLean *et al*, 2013) found that the majority of CAF Veterans worked similar to other Canadians. However, female Veterans had higher

rates of working than other Canadian females and older male Veterans had lower rates than other older Canadian males.

There are several options for Veterans to be identified on national surveys that capture labour market information including the Labour Force Survey, the Canadian Income Survey, the Canadian Community Health Survey and the Canadian Survey on Disability (CSD). The CSD was developed by Statistics Canada in collaboration with Employment and Social Development Canada (ESDC). As the LASS found that Veterans have higher rates of disability than Canadians⁶, VAC, ESDC and Statistics Canada have been examining the feasibility of adding Veteran identifier questions to the CSD.

5.0 Conclusion

Many labour-market outcomes are being studied and these outcomes vary across sub-groups of the Veteran population. Findings suggest that the prevention of work disability is important for improving the labour-market outcomes of Veterans in Canada. Several best-practices in preventing work disability were identified. Findings from this study can inform VAC's employment strategy, currently being developed as well as further research and data collection on Veteran employment outcomes.

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⁶ Comparison controls for age and gender using CCHS 2012 data.

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Appendix A: Literature on Labour-Market Outcomes of Veterans

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
|--|------------------------|--|--|--|
| Canada | | | | |
| MacLean, Van Til & Poirier, 2016a (VAC) | LASS Income Study 2013 | Study examined disability benefit clients as of March 2013 compared to Veterans who were not clients from Income Study 2013 population. Income Study 2013 N=51,990 Regular Force Veterans Released from 1998 to 2011, 47,590 linked to tax data in year of release and 32,540 linked with income for pre-release yr and 3 yr post-release period | Income and labour-market earnings. Factors: Age and disability benefit clients by level of disability compared to those without disability benefits | Among Veterans released 1998 to 2011, one-third were in receipt of disability benefits related to service. On average, younger Veterans in receipt of disability benefits experienced economic losses, while those older at release (aged 55 or older) had virtually no economic losses. Income replacement rates varied considerably among those without disability benefits and by disability rating, suggesting factors other than disability play a role in earnings capacity. To address economic loss, the department could consider restructuring economic loss benefits to recognize the steeper earnings trajectory of younger Veterans and compensate for economic loss after recognizing a Veteran's earnings capacity. |
| MacLean, Van Til & Poirier, 2016b (VAC) | LASS Income Study 2013 | Study included sub-set who had previously participated in the VAC Rehabilitation Program (852 matched to tax records) from Income Study 2013 population. Income Study 2013 N=51,990 Regular Force Veterans Released from 1998 to 2011, 47,590 linked to tax data in year of release and 32,540 linked with income for pre-release yr and 3 yr post-release period | Income, labour-market income and low income. Factors: completed VAC Rehabilitation or Vocational Rehabilitation program | Veterans who completed the Rehabilitation Program recovered about 75% of their pre-release income and less than half (about 40%) of their pre-release labour-market earnings. Those who completed vocational rehabilitation had similar recovery of labour-market earnings but lower recovery of total income compared to overall Rehabilitation program clients. Rates of experiencing low income were similar before and after program completion and higher while participating in the program. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| MacLean et al, 2016 (VAC) | LASS Survey 2010 | <p>Examined civilian comparable and unique to the military occupations and income and employment outcomes post-release.</p> <p>LASS Survey 2010 N=32,015 Veterans released from the Canadian Regular Force during 1998 to 2007</p> <p>Response rate=71% with 94% of these (n=3,154) agreeing to share their responses with VAC and DND.</p> | <p>Unemployment, unable to work, skills transferability, job dissatisfaction, low income, dissatisfaction with financial situation</p> <p>Factors: Occupation at release</p> | <p>Most Veterans had served in occupations comparable to those found in the civilian labour market. However more than one-third of Veterans were in occupations that are unique to the military, the majority of whom were in the combat arms. Veterans in unique occupations were worse off compared to the overall population for military experience mismatch. Particularly at risk among those in unique occupations were privates/recruits (unemployment) and junior NCMs (unable to work, military experience mismatch, low income and dissatisfaction with financial situation). Rank, however, also plays a role in employment and income outcomes. Regardless of occupation type, privates or recruits were worse off for military experience mismatch, low income and dissatisfaction with financial situation while junior NCMs were worse off for job dissatisfaction. These findings suggest the need for three types of strategies: 1) a strategy aimed at younger Veterans who often have more difficulty entering the civilian labour market, 2) a strategy designed for those experiencing difficulties related to disability; and 3) a strategy to assist those dissatisfied with their civilian employment. An overall strategy aimed at informing both Veterans and employers of how skills related to military service translate to the civilian labour market could also positively impact employment and income outcomes, especially for those in occupations unique to the military.</p> |
| Keough et al, 2015 (VAC) | LASS Survey 2013 | <p>Examined Veterans not in the labour force.</p> <p>LASS Survey 2013 N=56,129 Veterans released from the Canadian Regular Force during 1998 to 2012</p> <p>Response rate=70% with 90% of these (n=2,622 Regular Force) agreeing to share their responses with VAC and DND.</p> | <p>Not in the labour force</p> <p>Factors: adjustment to civilian life, satisfaction with life, main activity, activity limitation</p> | <p>Veterans who are not in the labour force were more likely than those in the labour force to have difficulty adjusting to civilian life, experience comorbidity and activity limitations and also to be dissatisfied with life, their finances and their main activity. Those not in the labour force were also more likely to have been medically released or released at retirement age. The largest group self-reported as retired as their main activity. Most of this group had more than 20 years of service, had an easy adjustment to civilian life and high levels of satisfaction with their lives, finances and main activity. Similarly, the majority of the third largest group by main activity (“Recently Left Employment”) were also satisfied, with half (52%) reporting an easy adjustment to civilian life. The group that would most likely benefit from VAC interventions and other employment supports are those “On Disability”. The majority of this group medically released (83%), reported a difficult adjustment to civilian life (81%) and had activity limitations (93%).</p> |
| MacLean et al, 2014 (VAC) | LASS Survey 2010 | <p>Study examined difficult adjustment to civilian life.</p> <p>LASS Survey 2010</p> | <p>Employed, unemployed, not in the labour market, satisfaction with job or main activity</p> | <p>The prevalence of difficult adjustment to civilian life was 25%. Statistically significant differences were found across indicators of health, disability, and determinants of health. In multivariable regression, lower rank and medical, involuntary, mid-career, and Army</p> |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | <p>N=32,015 Veterans released from the Canadian Regular Force during 1998 to 2007.</p> <p>Response rate = 71% with 94% of these (n=3,154) agreeing to share their responses with VAC and DND.</p> | | <p>release were associated with difficult adjustment, whereas sex, marital status, and number of deployments were not. Post-military adjustment to civilian life appears to be multidimensional, suggesting the need for multidisciplinary collaboration. Potential risk and protective factors were identified that can inform interventions, outreach strategies, and screening activities, as well as further research.</p> |
| <p>MacLean & Campbell, 2014 (VAC)</p> | <p>Literature review</p> | <p>A review of more than 60 articles, reports and papers, the authors examined income adequacy, employment, and disability compensation systems</p> | <p>Earnings replacement rate</p> <p>Factors: impairment, compensation</p> | <p>Income adequacy is typically measured in terms of what is known as earnings replacement rate. There is no accepted benchmark for the adequacy of income replacement, nor is there a consistent methodology. More recent studies have compared the earnings of injured workers or Veterans to uninjured control groups, thereby more accurately reflecting actual earnings losses over time. Social adequacy – i.e., earnings above poverty or some low income threshold – is also measured in some studies. Many studies have considered earnings equity by examining the relationship between impairment and earnings replacement. Those in the highest impairment category in some cases had earnings replacement rates well in excess of 100% while those in lower impairment categories had lower replacement rates. This suggests that factors other than impairment may play a role in explaining earnings replacement. More generous benefits can negatively affect employment integration; however, there is no clear threshold at which this effect comes into play. Many countries have tightened benefits while improving employment integration.</p> |
| <p>MacLean & Pound, 2014</p> | <p>LASS Survey, 2010, Administrative data and review of compensation policies</p> | <p>VAC administrative data and published statistics were examined to establish the trends in NVC expenditures and TPI Veterans. Explanations for the growth in TPI Veterans were explored through informal discussions with VAC employees. Sample data from the 2010 Survey on Transition to Civilian</p> | <p>Earnings replacement</p> | <p>Both NVC re-establishment program costs and the number of clients deemed TPI have increased substantially since the NVC enhancements. While, those deemed TPI were worse off compared to other Veterans in terms of health and disability, more than one-quarter were working post-release and their rates of experiencing low income was not different from other Veterans. Due to different approaches, it is difficult to compare compensation across jurisdictions. However, unlike VAC Earnings Loss, other jurisdictions use approaches to compensate for earnings loss which recognize varying degrees of work capacity and are designed to encourage labour market engagement.</p> |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | Life (STCL) was matched to TPI Veterans as of September 13, 2013. The literature was examined as well as websites related to approaches to compensating for long-term economic losses used by workers compensation boards in Canada, as well as Veterans administrations in Australia and the United Kingdom (UK). | | |
| Van Til et al, 2013 (VAC) | Literature review | The following databases were searched from their respective inception dates: MEDLINE, EMBASE, Cumulative Index Nursing Allied Health (CINAHL), and PsycINFO. Study Selection. In-scope studies had both (a) quantitative measures of employment and (b) study populations with well-described mental disorders (eg, anxiety, depression, PTSD, substance-use disorders). | Return to work, work reintegration Factors: mental health | Three major categories emerged from the in-scope articles: Return to Work, Supported Employment, and Reintegration. The literature on Return to Work and Supported Employment is well summarized by existing reviews. Reintegration literature included 32 in scope articles; only 10 of these were conducted in populations of Veterans. Studies of Reintegration to work were not similar enough to synthesize, and it was inappropriate to pool results for this category of literature. This comprehensive literature review found limited knowledge about how to integrate people with mental disorders into a new workplace following a prolonged absence (over one year). Even more limited knowledge was found for Veterans. The results informed the next steps for our research team, to enhance successful reintegration of Veterans with mental disorders into the civilian workplace. |
| VTAC, True Patriot Love, 2013a | Survey of employers | Survey of 850 corporate HR departments in Canada was conducted to assess companies' attitudes towards hiring | Attitudes towards hiring. | 45% of Canadian employers think that promoting the hiring of veterans reflects well on their company. When asked about whether veterans make stable, long-term employees, 43% of employers agree while only 3% of employers disagree. 73% of Canadian employers admit that their organization does not have a veteran specific hiring initiative. 35% |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | veterans, and to identify potential biases that may be inhibiting veterans from securing meaningful employment. | | agreed with the statement: “Our organization does not need to make any special effort to recruit veterans.” Of those companies that do not have a veteran specific hiring initiative, only 4% have plans to implement one. Only 13% of Canadian HR departments have been trained to read military resumes. Of those that have not been trained to read military resumes, only 3% know where to receive training on how to read a military resume. 46% of employers believe that having a university degree is more important than years of military experience. 58% of employers agree with the statement: “A veteran who has civilian employment experience in addition to military experience is better suited for my organization.” When asked, what is the most important in helping a veteran find a job in the civilian world, 47% ranked trade skill or apprenticeship as the most important, followed by a University degree (26%), College diploma (7%), length of service (6%) and last rank held (3%). |
| VTAC, True Patriot Love, 2013b | Inventory of Veteran employment assistance programs in Canada | Search of programs and categorized under 4 parameters: Stage of Life; Geography; Target Group; and Transition Service Type in order to identify gaps in supports | Not applicable | Identified 18 employment assistance programs provided by government and non-government organizations (VTAC Group Meeting presentation June 2013). One program focuses mainly on fundraising (True Patriot Love) not providing employment services. Five programs (SISIP Vocational Rehabilitation Program, VAC Rehabilitation Program, Veteran Transition Program, Wounded Warriors and PTSD Coach Canada) are exclusively for disabled Veterans. Four programs were found to only be available in Ontario (Algonquin College, Treble Victor Group) and BC (BCIT and Northern Alberta Institute of Technology). Two programs work with employers: CFLS supports employers of reservists and the Hire-a-Veteran Program is a partnership between VAC and employers to encourage the hiring of Veterans. Six programs were found to provide employment services to a broad population of Veterans on a national basis namely: Canada Company (MET); Career Transition Assistance Program (SCAN provided by DND); Helmets to Hardhats; Prince’s Operational Entrepreneur; Prospect:Forces@Work; and the Veterans Transition Program. |
| MacLean et al, 2013 (VAC) | Canadian Community Health Survey, 2003 | Canadian Forces Veterans (Regular Forces and Reserves) released after 2003. n= 135,573 Canadians, n=2,742 War Service Veterans Affairs (WWI, WWII and Korea), | Employment (Forces i.e. Regular Force or Reserves, gender, age) | The majority of CAF Veterans (69%) and both Regular (68%) and Reserve Force Veterans (67%) worked in the week prior to the survey. The rate of working was not different between CAF overall and both Regular and Reserve Force from other Canadians. However, older (40-59) male CAF Veterans (80%) had lower rates of working compared to other Canadians (86%). Female CAF Veterans (62%) had higher rate of working than other Canadian females (56%) while the rates of working were the same between male Veterans and other Canadians (69%). |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | n=3,281 Canadian Forces Veterans (post-Korea) | | |
| MacLean, Sweet & Poirier, 2011a (VAC) | LASS Income Study and Survey 2010 | <p>Study compared medically and non-medically released Veterans from LASS 2010.</p> <p>LASS Survey 2010 N=32,015 Veterans released from the Canadian Regular Force from 1998 to 2007 Response rate = 71% with 94% of these agreeing to share data (n=3,154)</p> <p>LASS Income Study 2010 N= 33,601 Veterans who had been matched to tax files in their release year</p> | <p>Income replacement rate, low income, satisfaction with financial situation</p> <p>Factors: medical release</p> | <p>Medically-released Veterans did not recover their pre-release level of income while the incomes of non-medically released Veterans eventually exceeded their pre-release incomes. Medically-released Veterans were just as likely to experience low income as non-medically released Veterans but were less satisfied with their financial situation. This suggests that satisfaction with financial situation may be more related to loss of continuity of income and/or lost earnings potential than being in a low-income situation. Various measures of income adequacy (satisfaction with financial situation, low income and continuity of income and earnings potential) were examined for this study. However, examining the effectiveness of current policies and programs requires that the Department clarify the goals related to income adequacy.</p> |
| MacLean, Sweet & Poirier, 2011b (VAC) | LASS Survey 2010, Survey of SCAN seminar participants and literature review | <p>LASS Survey 2010 N=32,015 Veterans released from the Canadian Regular Force from 1998 to 2007 Response rate = 71% with 94% of these agreeing to share data (n=3,154)</p> | <p>Unemployment, low income, satisfaction with employment</p> <p>Factors: Participation in employment services</p> | <p>While participant satisfaction was generally high for programs in the US and UK that are similar to CTS, little is known about the ultimate impact on employment, i.e., whether outcomes can be attributed to these programs. While 17% of releases are participating in CTS, up to an additional 16% have a high to moderate need but are not being reached by the program. Among Regular Force Veterans released from 1998 to 2007, 11% had a high need (low income and/or unemployed) for CTS and 5% had a moderate need (employed but dissatisfied with their work). Veterans with the greatest need of CTS were much more likely than CTS clients to be younger, to have served for shorter periods of time and to have released medically or involuntarily. Relying on the SCAN seminars as the main point of access to the program has resulted in the program not reaching many of those most in need. While the data currently available does not allow for the measurement of the effectiveness of CTS, repeating the Survey and/or the Income Study and including releases after 2007 would allow for a comparison of the employment outcomes for CTS participants and non-participants.</p> |

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| Marshall, Matteo and Pedlar, 2005a (commissioned by VAC) | Veterans Affairs Canada (VAC) Canadian Forces Clients Survey, 1999 | N= 18,443 Canadian Forces clients under the age of 65, n= 1,968, Response rate = 72% After certain exclusions for this study n=863 | Military career, employment status (employed, unemployed and looking for work, inactive), and work stability indicators (ever worked for pay, number of different jobs, ever unemployed, number of unemployed periods), satisfaction with income Factors: Medical release, health status | Those released for medical reasons are on average 6 years younger than those released for other reasons and had spent significantly fewer years in regular service (17.2 vs. 23.5 years). They are significantly less likely than those released for other reasons to be officers (16.4 vs. 31.4%). Upon release from the Canadian Forces, a significantly smaller proportion report having ever worked in civilian jobs (80.7 vs. 91.6%), at the time of the survey they had held more post-release jobs (2.86 vs. 2.73); and they were more likely to be either unemployed (9.3 vs. 7.6%) or inactive (39.0 vs. 37.7%) at time of survey. Those released for medical reasons are significantly less likely to report satisfaction with current or anticipated income and investments (Current: 37.3 vs. 59.4%; Continued: 26.9 vs. 42.3%), which appears to be due primarily to lower levels of current income and diminished health status (specifically current level of pain, depression, and PTSD). This portrayal should inform VAC policy concerning the current and future economic well-being of those who have been in Canada's service, particularly in terms of the consequences of medical disability. |
| Marshall, Matteo and Pedlar, 2005b (commissioned by VAC) | Veterans Affairs Canada (VAC) Canadian Forces Clients Survey, 1999 | N= 18,443 Canadian Forces clients under the age of 65, n= 1,968, Response rate = 72% After certain exclusions for this study n=819 male respondents no longer serving in the Canadian Forces | Economic well-being Factors: Medical release, education, age, marital status | Planning is essential for post-release economic well-being. Found little readiness, and less in those medically released than those with a non-medical release. Older, married, and more highly educated respondents are more likely to be prepared than younger, not married and lowly educated veterans. |
| Marshall and Matteo, 2004 (commissioned by VAC) | Veterans Affairs Canada (VAC) Canadian Forces Clients Survey, 1999 | N= 18,443 Canadian Forces clients under the age of 65, n= 1,968, Response rate = 72% Included 1,772 who reported on their current level of education | Income Factors: Education | Many VAC clients are poorly educated, and lower educational status is associated with cohort—older VAC clients are more likely to have entered the service with lower educational attainment than younger, more recent entrants. Education has a strong relationship to personal income starting with at least some post-secondary education. |
| Marshall, Matteo and Mueller, 2000 (commissioned) | Veterans Affairs Canada (VAC) Canadian Forces Clients | N= 18,443 Canadian Forces clients under the age of 65, n= 1,968, Response rate = 72% | Military career, employment status (employed, unemployed and looking for work, inactive), and work | The majority of clients, 85%, are no longer in the CAF; 11% are in the Regular Force and 4% in the Reserve Force. The average age at leaving service, for those released, is 39 years, but one third of released clients had been released at age 45 or older. There were four employment status groups: employed in the regular or reserve CAF(16%), employed |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| by VAC) | Survey, 1999 | | stability indicators (ever worked for pay, number of different jobs, ever unemployed, number of unemployed periods), type of work (self-employment, full-time/part-time and part-year) | outside the service (41%), unemployed (7%), and inactive (36%). Of those not in the military and not employed, 84% are not actively looking for work. We refer to these as the 'inactive' group, and assume that many of them consider themselves to be retired. Almost three quarters of the inactive group are over the age of 55. While 7% of all clients are unemployed, it is not surprising that twice as large a percentage of those in their first year of release are unemployed. However, the likelihood of being unemployed falls with increasing years since release from the service. Inactive clients are less likely to report a job change or loss in the previous year than those who are unemployed (13% vs 59%). For those who have left the service, increasing years since release is associated with a greater number of jobs held. About one-quarter of the post-service jobs involve self-employment; about one quarter are not full-time jobs; and about one quarter are part-year jobs. |
| Stow, 1997 (DND) | Mail Survey | N=1,722 of 1,865 former members who had been released from the CAF (Regular Force) on medical grounds from 1992 to 1996, n= 648, Response rate = 35% to 37% | Planning for a second career, employment, unemployment, skills and experience transferability | The survey indicated significant dissatisfaction with the adequacy and quality of information, assistance and support provided to members throughout the release process; the length and complexity of the disability pension claim process; and the adequacy of financial compensation and benefits provided by existing pension and insurance schemes. In terms of planning for a second career: 70% reported attending a SCAN seminar or workshop before release; 47% reported having an interview with a Personnel Selection Officer or other staff member concerning planning and preparation for a second career; 42% were satisfied with the information provided; 15% reported having taken training/education courses subsidized by the CAF, in preparation for a second career; 28% reported having taken training/education courses paid out of their own pocket, in preparation for a second career; 55% reported that they were not aware that they could apply to have the CAF subsidize certain kinds of courses up to one year after release. In terms of civilian employment: 55% reported that their medical condition had prevented them from being employed since their release; employment status as follows: 24% - full-time, 17% - part-time, 19% - unemployed and looking for work, 20% - unemployed and not looking for work, 8% - self employed, 6% - student, 7% - home-maker, 40% reported that skills and experience acquired in the military helped them get a job; 20% acquired the necessary training/education after they became aware that they would be released, or after they were released from the CAF. |
| Pinch, 1980 (DND) | Develops an analytical framework | Not applicable | Difficulty in job entry, continuity of job | Recommended a framework that includes social, psychological and economic determinants of successful transition from the perspective of the individual, society and the military. From the social perspective |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | | successful transition is defined as employment, income, and status continuity or better. From an individual perspective successful transition is defined as absence of or minor perceived difficulty in job entry and perceived identity/adjustment problems and perceived continuity of job, financial, and family situation. |
| Pinch & Hamel, 1978 (DND) | Survey | Military leavers were surveyed and interviewed as they left the Forces and followed up over the next few months (n=122); and former service members who had been out of the services for between three and five years, and who were surveyed by mailed questionnaire (n=322). | Transferability (practice military acquired skills and general expertise in the civilian labour market) and translatability of skills (degree to which individuals are able to match social and psychological aspects of those skills and expertise between the military and civilian sector) | The majority of both groups of respondents (military leavers and former service members) have made a reasonably successful transition to civilian life, but there was a significant minority of between 35% and 40% who have met with serious barriers in transferring and translating their military skills and general service experience. |
| Pinch, 1977 (DND) | Survey | n=238 members from the ranks of private to colonel who left the forces for civilian life | Comparison of expectations for civilian employment to actual employment, planning for civilian employment, military skills and experience, part-time work, intended place of residence, reference group (group that they compare themselves to) | Military leavers perceive that the current program is deficient. Long-term members whose careers have been predominantly in the uniquely military occupations are most acutely affected by low skills transferability and the most likely to feel cut-off from the civilian community. Low levels of preparation for civilian life and unrealistic expectations. |
| Pinch, 1975 (DND) | Research proposal | Not applicable | Not applicable | Recommended a longitudinal design consisting of three stages: pre-retirement, transition and job-seeking, and post-retirement or second-career stage. Sample should be sufficiently large and representative of service leavers, about half of service leavers split by long-termers (served to annuity) and short-termers (served 5 years or more without an annuity). |
| Other Countries | | | | |
| Castro, Kintzl and Hassan, | Targeted recruitment | n= 1,902 Veterans | Employment Transition | The study reported on findings from the LA County Veteran Study and noted that many leaving the military are not prepared for the transition |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| 2014 US | representative of Los Angeles veteran population; surveys; focus groups | | | and many have a wide range of needs not easily met by a single organization. The authors suggest that Veteran support organizations need to a holistic approach to supporting Veterans. |
| General Accountability Office (GAO) 2014b US | Inventory of Veteran employment assistance programs by US DoD and VA | - | Supports for transition to civilian life | Congress mandated that GAO identify DOD and VA programs designed to address the effects of combat on service members who have served during recent conflicts, assist service members and veterans with the transition to civilian life, and raise public awareness of these issues. 87 programs were identified. 18 of these programs provide employment services |
| Smith, 2014 US | 2010 Medical Expenditure Panel Survey | n= 19,600 less than 65 years of age n=1,007 (7.4%) Veterans | Employment Factors: Disability | Significant differences in employment were found between Veterans with and without a disability; however, no significant differences existed in employment between Veterans and non-Veterans with a disability. Multivariate analysis showed that Veteran status (aOR=1.80), having any disability (aOR=7.29), social disability (aOR=3.47) or a cognitive disability (aOR=3.16) were associated with not being employed. |
| Routon, 2014 US | National Longitudinal Survey of Youth 1997 | n=8,803 aged 25 to 31 in 2010 n= 348 Veterans | Earnings, unemployment, satisfaction with civilian occupation, education, public service employment Factors: Race, gender | Veteran status increases civilian wages by approximately 10 percent for minorities but appears to have no effect on whites. Veterans equally employable as non-Veterans. Veterans equally as satisfied with their civilian occupation as non-Veterans. For females and minorities, Veteran status substantially increases the likelihood one attempts college. These Veterans are found to be more apt to pursue and obtain a two year (associate's) degree instead of a four year (bachelor's) degree. Mixed evidence that Veteran status increases the likelihood of public sector employment (one set of data showed no increased likelihood and the other showed increased likelihood). |
| Pogoda et al, 2014 US | Administrative data (TBI evaluation) | n = 11,683 who completed a comprehensive TBI evaluation (Operation Enduring Freedom/ Operation Iraqi Freedom Veterans) | Unemployment Factors: MTBI, psychiatric conditions | Approximately one-third of Veterans in this sample were unemployed, and of these, the majority were looking for work. After simultaneously adjusting for health and deployment-related variables, significant factors associated with unemployment included one or more suspected psychiatric conditions (eg, posttraumatic stress disorder, anxiety, depression), neurobehavioral symptom severity (ie, affective, cognitive, vestibular), former active duty status, injury etiology, age, lower education, and marital status. The associations of these factors with employment status varied by deployment-related TBI severity. Simultaneously addressing health-related, educational, and/or vocational needs may fill a critical gap for helping Veterans readjust to |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | | civilian life and achieve their academic and vocational potential. |
| Rosen et al, 2014 US | Randomized Control Trial | n=84 Veterans who had applied for service-connected compensation for a psychiatric condition | Days of paid work Factors: Psychiatric conditions Intervention: Benefits counselling | Veterans assigned to benefits counseling worked for pay for significantly more days than did Veterans in the control group (effect size=.69, p<.05), reflecting an average of three more days of paid employment during the 28 days preceding the six-month follow-up. Benefits counseling was associated with increased use of mental health services, but this correlation did not mediate the effect of benefits counseling on working. Barriers to employment associated with disability payments are remediable with basic counseling. More research is needed to understand the active ingredient of this counseling and to strengthen the intervention. |
| Meshberg-Cohen et al, 2014 US | Patient population | n=33 Veterans with substance use problems n=51 Veterans without substance use problems | Attitudes toward work and disability compensation Factors: Substance abuse | Veterans endorsed high levels of agreement with statements that working would lead to loss of benefits. Veterans with substance use agreed more strongly that they would rather turn down a job offer than lose financial benefits. The greater preference for disability payments among substance-using Veterans may reflect a realistic concern that they are particularly likely to have difficulty maintaining employment. The widespread concern among Veterans that work will lead to loss of VA disability payments is striking given the ambiguity about how likely loss of benefits actually is, and should be addressed during the service-connection application process. |
| Abraham et al, 2014 US | Administrative data | Patients with a psychiatric diagnosis among a random sample of all patients who received VHA services in 1 yr. | Receipt of employment services Factors: Psychiatric conditions | Results indicated that 4.2% of VHA patients with a psychiatric diagnosis received employment services. After adjusting for clinical and demographic characteristics, VHA patients with schizophrenia and bipolar disorder were more likely to receive any employment services and to receive supported employment than were patients with depression, PTSD, or other anxiety disorders. VHA patients with depression and PTSD were more likely to receive transitional work and vocational assistance than patients with schizophrenia. Future studies should examine system-level barriers to receiving employment services and identify types of employment services most appropriate for Veterans with different psychiatric diagnoses. |
| Ashcroft, 2014 UK | Career Transition Partnership (CTP) Survey in 2013. Supplemented with focus groups and | n = 11,570 who used CTP in 2011-12, Response rate =25% | Employment and unemployment | 77% of personnel who left the Armed Forces in 2011/12 were eligible to use the CTP services. Of these, 76% used CTP. Public perception distorted. Transition is important to society as a whole. Employment is important to transition outcomes. Those most likely to struggle get the least help. Mindset of the individual service leaver is key. 2011/12 at 6 months post-release among CTP users: 85% employment rate, 8% unemployed; 8% economic inactivity |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | interviews among recent Service Leavers. | | | |
| US Bureau of Labor Statistics, 2014 US | Current Population Survey (CPS) (a monthly survey that provides data on employment and unemployment in the United States, Supplement on service-connected disability in Aug 2013) | n=60,000 households 9 percent of the civilian non-institutional population age 18 and over were Veterans, Response rate =92% 50% = World War II, the Korean War, and the Vietnam era, 25% = Gulf War era I (Aug 1990 to Aug 2001) and II (served since Sept 2001), 25% = Other | Employment, unemployment, public service employment Factors: Service era, service-connected disability, gender, age | In 2013, about 2.8 million of the nation's Veterans had served during Gulf War era II (served since Sept 2001). About 20 percent of these Veterans were women, compared with 4 percent of Veterans from World War II, the Korean War, and the Vietnam era. Over half of all Gulf War-era Veterans were between the ages of 25 and 34. Among Gulf War-era II Veterans, the unemployment rates in 2013 for men (8.8 percent) and women (9.6 percent) were not statistically different from the prior year (9.5 percent and 12.5 percent, respectively). Among women, the unemployment rate for Gulf War-era II Veterans (9.6 percent) was higher in 2013 than the rate for nonVeterans (6.8 percent). Among Veterans who served during Gulf War era II, nearly 3 in 10 (827,000) reported having a service-connected disability. Of these, 70.5 percent were in the labor force in August 2013, lower than the labor force participation rate of 85.4 percent for Veterans from this period with no service-connected disability. Among Gulf War-era II Veterans, the unemployment rate of those with a disability was 8.6 percent, not statistically different from those with no disability (11.1 percent). The unemployment rate for male Gulf War-era II Veterans (8.8 percent) was higher than the rate for male nonVeterans (7.5 percent) in 2013. The unemployment rates differed by age. Male Gulf War-era II Veterans age 18 to 24 had a higher unemployment rate than male non Veterans of the same age group (24.3 percent and 15.8 percent, respectively). For those age 25 to 34, male Veterans also had a higher rate than male nonVeterans (9.2 percent and 7.5 percent, respectively). For men 35 and older, unemployment rates were little different for Gulf War-era II Veterans and nonVeterans. Veterans of Gulf War era II and nonVeterans had similar occupational profiles in 2013 after accounting for gender. About one-third of the employed men in both groups worked in management and professional occupations, a higher proportion than in any other major occupational group. Among employed women, over 40 percent of Gulf War-era II Veterans and nonVeterans worked in management and professional occupations. A higher proportion of employed Gulf War-era II Veterans worked in the public sector in 2013 than employed nonVeterans--28 percent and 14 percent, respectively. The federal government employed 16 percent of Gulf War-era II Veterans, compared with about 2 percent of employed nonVeterans. In August 2013, 40 percent of Gulf War-era II Veterans reported serving in Iraq, Afghanistan, or both. These Veterans had an unemployment rate of 10.2 percent, little different from Gulf War-era II |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| Ottomanelli et al, 2014 US | Randomized, controlled, multi-site trial | n= 201 Veterans with Spinal Cord Injuries | Employment | Veterans who served elsewhere (10.9 percent). For the entire 2-year follow-up period, SE subjects were significantly more likely to achieve employment (30.8%; 95% confidence interval [CI], 21.8–41.6) than either the TAU subjects at the intervention sites (10.5%; 95% CI, 5.2–19.7; P<.001) or the TAU subjects at the observational sites (2.3%; 95% CI, 0.0–12.9; P<.002). Most subjects who obtained competitive employment did so in year 1, and the average time to first employment was about 17 weeks. SE was better than usual practices in improving employment outcomes for veterans with SCI across a 2-year follow-up period. Although SE continued to be superior to traditional practices over the entire study, the first year of participation in SE may represent a critical window for achieving employment after SCI. |
| GAO, 2014a US | Administrative data, interviews with staff | Veterans who entered the Vocational Rehabilitation and Employment program in 2003 | Suitable job | About half of the almost 17,000 Veterans who entered the Department of Veterans Affairs' (VA) Vocational Rehabilitation and Employment (VR&E) program in fiscal year 2003 and received employment-related services were placed in suitable jobs, one-third left the program, and most of the others are still participating. It often took Veterans 6 years or more to achieve success, due in part to Veterans often leaving the program temporarily. Interviews with VR&E staff and participants and administrative data GAO reviewed suggest Veterans face numerous challenges that affect their ability to obtain employment, especially related to mental health conditions, working with multiple VR&E counselors over time, and civilian employers' limited understanding of military work experience. The US has set a target (2012-13) that at the end of the program, 77% would be placed in a "suitable job". Suitable is defined as work consistent with the Veteran's abilities, aptitudes, and interests and is employed for 60 days or self-employed for one year. |
| Forces in Mind Trust, 2013 UK | Administrative data, literature review | Examine demographic and service characteristics if recent service leavers, provided case study examples and calculated the direct costs of poor transition to civilian life | Unemployment, skills | Calculated the direct cost to government to be £114m in 2013. Alcohol misuse has the largest single effect, with costs of £35m, followed by mental health issues ("common neurotic disorders" together with PTSD) at £26m. Unemployment accounted for £21m in benefits and forgone tax revenue. The authors noted that better employment outcomes are likely to lead to better outcomes in other areas as well, such as mental health outcomes. Recommendations related to employment included: 1. Better structured support for early service leavers who get minimal resettlement support from the Armed Forces, but are less likely to find employment, and are more likely to report mental health issues after leaving. 2. Access to work placements after resettlement. The courses offered during |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | | resettlement to retrain in a new profession are considered a valuable 'starting point' to, for example, starting in a new trade, but do not qualify ex-Service personnel to start practicing immediately or have the experience or network to 'hit the ground running'. |
| Institute of Medicine, 2013 US | Literature review, interviews, review of government documents | Relied on studies of previous conflicts as well as few studies of OEF/OIF Veterans have been completed. | Employment, unemployment, earnings, part-time work Factors: mental disorders, disability, PTSD | The readjustment needs of service members, veterans, and families that have experienced deployment to OEF or OIF encompass a complex set of health, economic, and social issues. Many veterans return from deployment relatively unscathed by their experience, but others return from deployment with a multitude of complex health outcomes that present life-long challenges and hinder readjustment. Not all veterans who need treatment receive it despite the offering of evidence-based treatments by the VA and DOD health systems, because system wide challenges exist. Military families often endure the adverse consequences of deployments, for example, health effects, family violence, and economic burdens. Numerous programs exist to respond to the needs of returning OEF and OIF active-duty personnel, veterans, and family members, but there is little evidence regarding their effectiveness. Unemployment and underemployment are acute problems for military veterans. Published data on the effects of deployment on military communities are sparse. DOD, VA, and other federal agencies have data that can answer many of the questions posed in the legislation; however, numerous barriers must be overcome to facilitate sharing and linking of data. Taken together, studies of employment show that veterans who have psychiatric illness are at a disadvantage in obtaining or maintaining employment. When they are employed, it might only be part time rather than full time, or they might be functioning at lower levels. PTSD appears to be the strongest risk factor for occupational impairment. |
| Tsai and Rosenheck, 2013 US | 2010 National Survey of Veterans | n= 4,787 Veterans (Vietnam to recent) | Employment Factors: Service- connected disability rating, era | Two-thirds of Veterans under the age of 65 were employed, although only 36 % of Veterans with a VA service-connected disability rating of 50 % or higher were employed. Veterans who received no VA disability compensation or who were service-connected 50 % or more were more likely to be unemployed and not looking for employment than Veterans who were not service-connected or were service-connected less than 50%, suggesting high but not all levels of VA disability compensation create disincentives for employment. Results were similar when analyses were limited to Veterans who served in Iraq and Afghanistan. Education and vocational rehabilitation interventions, as well as economic work incentives, may be needed to maximize employment among Veterans with disabilities. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| Kleykamp, 2013a US | Literature review | Reviewed past three decades of literature on employment among Veterans and spouses of Veterans from a life-course perspective. | Employment, earnings Factors: Historical context, personal factors, race and ethnicity, education, gender, military experience, military occupation, wartime and combat exposure | Nearly three decades of scholarship concerning the effects of military service on Veteran's employment and earnings has produced inconsistent findings, partly because of methodological challenges. This body of research suggests that Veterans sometimes outperform their non-Veteran peers, but more typically, they come from behind and face bumpy paths back toward parity with civilians. These trajectories vary in terms of personal biography, specific military experience, and historical context. |
| Kleykamp, 2013b US | Current Population Survey data from 2005 to 2011. | The Current Population Survey (CPS) questions approximately 60,000 households each month, serving as the primary source of national labor force statistics in the US. All CPS respondents are asked about their Veteran status and the last period in which they served. Analyzed post 911 Veterans. | Unemployment, earnings and college enrollment Factors: Gender, race/ethnicity and educational attainment. | The basic unemployment differences between post 911 Veterans and non-Veterans often reported in the media understate the effect of military service on unemployment for men, since Veterans have other characteristics that are associated with higher employment rates. Female Veterans appear to suffer a steeper employment penalty than male Veterans, but black Veterans appear to suffer less of a penalty than white Veterans. But on two other measures, earnings and college enrollment, Veterans appear to be doing better than their civilian peers. Veterans with a high school education or less out earn their civilian peers, but Veterans with at least some college education appear to lose some or all of the Veteran earnings advantage compared to Veterans with a high school degree, suggesting the greatest wage returns to military service accrue among the least educated. Veterans with at least a high school education are more likely to be enrolled in college than their civilian peers. Treating Veterans as a monolithic block obscures differences in the consequences of military service across diverse groups. |
| Horton et al, 2013 US | Millennium Cohort Study 2001, every 3 years to 2022 | Former US active duty military service members n=9,099 | Employment Factors: Mental disorders, physical health, deployment | Mental disorders like depression or panic/ anxiety and poor physical health may have greater impact than prior deployment experiences or PTSD on the ability to find or maintain employment post-service. |
| Ottomanelli, Barnett and Goetz , 2013 US | Patient population | Trial of supported employment (SE) versus treatment as usual (TAU) for vocational issues. n= 157 Veterans with SCI who received either SE or TAU for vocational issues. | Employment Factors: Spinal Cord Injury Intervention: supported employment versus treatment usual | There were no significant differences between Veterans who participated in SE compared to those who received TAU in study measures. Participants obtaining competitive employment demonstrated significantly higher scores on the Social Integration, Mobility, and Occupation dimensions of the CHART. There were no observed differences in VR-36 scores or FIM scores for those obtaining competitive employment. This study suggests that employment has a positive effect on an individual's ability to participate in social relationships, move about their home and community, and spend time |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | | in productive and usual roles. Inability to detect differences across other domains of handicap or any changes in HRQOL may have been due to several factors including level and intensity of employment, insufficient follow-up period, or measurement limitations. |
| Humensky et al, 2013 US | Patient population | n= 5,729 Veterans at intake and at follow-up three to nine months after receiving substance abuse treatment from the U.S. Department of Veterans Affairs during 2001-2010. | Earnings, days of work Factors: Medical and anxiety disorders, substance use disorder | The percentage of Veterans with any days of paid work rose from 28% at intake to 35% at follow-up. Veterans with comorbid anxiety and general medical conditions had lower odds of having earnings from employment or days of paid work at follow-up. Veterans with substance use disorders, particularly those with comorbid general medical and anxiety disorders, may be at risk of employment problems. |
| Ziven et al, 2012 US | Longitudinal survey data from Veterans receiving primary care in 1 of 10 Veterans Health Administration primary care practices in five states. | Patient Health Questionnaire (PHQ-9) scores indicating probable major depression (PHQ-9≥10) at baseline and who completed either the 7-month follow-up survey or follow-up surveys at both 7 and 18 months post baseline. n=516 | Employment Factors: Depression | Although general employment rates remained stable (21%-23%), improved depression status was associated with an increased likelihood of becoming employed over 7 months among those who were both depressed and non-employed at baseline. Improvements in depression status starting at 7 months and continuing through 18 months were associated with remaining employed over the 18-month period, relative to those who were depressed throughout the same time frame. Given the pressing need to prevent socioeconomic deterioration in the increasing population of conventional working-aged Operation Enduring Freedom and Operation Iraqi Freedom Veterans, further attention to the depression/employment relationship is urgently needed. |
| Davis et al, 2012 US | Randomized control trail | Unemployed Veterans with PTSD were randomly assigned to either individual placement and support (IPS) supported employment (n = 42) or a Veterans Health Administration Vocational Rehabilitation Program (VRP) treatment as usual (n = 43). | Employment and earnings Factors: PTSD Intervention: Supported employment | During the 12-month study, 76% of the IPS participants gained competitive employment, compared with 28% of the VRP participants (number needed to treat = 2.07; $\chi(2) = 19.84$, $df = 1$, $p < .001$). Veterans assigned to IPS also worked substantially more weeks than those assigned to VRP (42% versus 16% of the eligible weeks, respectively; Mann-Whitney z test $p < .001$) and earned higher 12-month income (mean \pm SD income of \$9,264 \pm \$13,294 for IPS versus \$2,601 \pm \$6,009 for VRP; Mann-Whitney z test $p < .001$) during the 12-month period. Veterans with PTSD who received IPS were 2.7 times more likely to gain competitive employment than those who received VRP. Because work is central to recovery, these results should assist stakeholders in planning improved services for Veterans with PTSD. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| Schnurr and Lunney, 2012 US | Randomized control trail | n=218 female Veterans and soldiers with current PTSD who participated in a randomized clinical trial of treatment for PTSD. | Occupational impairment, work satisfaction Factors: PTSD symptoms Intervention: prolonged-exposure vs present-centered therapy | Both treatment groups had improvements in occupational impairment, and the degree of improvement by the two groups was similar. There was no pre- to post-treatment change in work satisfaction. At the end of treatment, participants who no longer met diagnostic criteria for PTSD had greater improvements in all domains of work-related quality of life than participants who still had PTSD. Although prolonged exposure resulted in better PTSD symptom outcomes than present-centered therapy in the randomized clinical trial, it did not result in better work-related quality-of-life outcomes. The improvement in occupational impairment associated with loss of diagnosis suggests the importance of continuing treatment until clinically meaningful change has been attained. |
| Harrell MC and Berglass N, 2012 US | Interviews with employers | Interviews with 87 individuals representing 69 companies | Hiring practices | The companies reported 11 reasons they hire Veterans, with an emphasis on Veterans' leadership and teamwork skills, character and discipline. Companies also reported challenges associated with hiring Veterans, particularly regarding Veterans' difficulty in translating their military experience to the civilian workplace and concerns about future deployments by National Guard members and reservists. Many companies are eager to help and agree that hiring Veterans is patriotic and "the right thing to do." However, most companies are usually only able to hire Veterans when there is also a business-related motivation. |
| Pogoda et al, 2011 US | Interviews conducted over two years at six VA medical centers involved in implementing supported employment. | n=84 unique semi-structured interviews focusing on program development were conducted at the two time points with 110 VA leaders, clinicians, and supported employment staff. | Barriers to supported employment implementation | Perceived barriers to supported employment implementation were most prominent during the first year of interviews. VA employees across the six sites reported challenges related to employees having paternalistic attitudes about individuals with serious mental illness and being uninformed about the supported employment program. They also reported a lack of organizational structures and leadership to educate providers, facilitate program integration with other teams, and promote the program's value. By the second year, most sites had addressed these challenges. Paternalistic-uninformed concerns about the ability of persons with serious mental illness to be gainfully employed and a lack of organizational structures and leadership to promote and integrate the supported employment program were common implementation barriers. During implementation, organizations would likely benefit from a formalized educational process of teams involved in the care of supported employment clients and from leadership buy-in to the program and promotion of its significance. |
| Burnett-Zeigler | Survey | n= 585 National Guard | Employment, full-time | Forty-one percent of National Guard service members were employed |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| et al, 2011 US | | service members who released in 2009 | versus part-time employment Factors: Age, family income, combat exposure, health status, mental health | 45 to 60 days following demobilization. Among those who were employed, 79% were employed full-time. Age, family income, and combat exposure were associated with employment; income and health status were associated with part-time versus full-time employment. Mental health status may not be strongly associated with initiating civilian employment among National Guard service members; however, better mental health status is associated with being employed full-time versus part-time. |
| Department of Veterans Affairs, 2011 Australia | Administrative data | n=1,298 started in 2009-10 (773 non-return to work and 525 return to work) n=245 RTW cases started under the MRCA, 194 under SRCA and 86 under VEA | Employment, life satisfaction | At case closed % return to work (RTW): <ul style="list-style-type: none"> • 63% under the MRCA (81% still employed after six months) • 51% under SRCA • 45% under VEA Recommended that DVA adopt a Goal Attainment Scaling and a Life Satisfaction Questionnaire as routine outcome measures. The life satisfaction questionnaire includes the following on paid employment: total pay; job security; the work itself (what you do); the hours you work; the flexibility available to balance work and non-work commitments; and overall job satisfaction. |
| Penk et al, 2011 US | Randomized control trial | n= 89 Veterans with co-morbid psychiatric and substance use disorders who were randomly assigned to participate in Veterans Health Administration transitional work experience (VHA TWE) services with those assigned to simple JP services provided by state vocational rehabilitation professionals. | Employment, hours and weeks worked, earnings | VHA TWE participants were more likely to engage in paid activity, to work more total hours, to work more weeks and to earn more in total wages. The groups were not significantly different with respect to competitive employment, in terms of the percentage acquiring competitive jobs, the number of hours worked, or wages earned. These data suggest that the primary benefit of VHA TWE services is in rapidly engaging participants in paid activity and that these services are not effective at helping dually diagnosed Veterans obtain competitive employment. |
| Kleykamp, 2009 US | Audit of resumes sent to employers in response to advertised positions. | n=934 job advertisements, fictitious resumes of matched Veterans and non-Veterans faxed in response | Hiring practices of employers (based on call-back to applications) Factors: Race, combat | Employers exhibit preferential treatment of black military Veterans with transferable skills over black nonVeterans. Veterans with traditional military experience in the combat arms do not experience preferential treatment by employers, regardless of racial/ethnic background. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | arms occupation | |
| Resnick and Rosenheck, 2008 US | Administrative data | n=5,862 Veterans in a national Department of Veterans Affairs (VA) vocational rehabilitation program, average age=48 | Employment, work days Factors: PTSD, military service characteristics, homelessness, receipt of public support income, severe mental illness | Veterans with PTSD were 19% less likely to be employed at discharge (odds ratio = 0.81, p = 0.02) after controlling for potentially confounding variables. Individuals with substance use diagnoses or who were homeless at program entry were more likely to be employed at discharge, while receipt of public support income and severe mental illness decreased the likelihood of being competitively employed. This study supports current VA efforts to expand and improve the effectiveness of vocational rehabilitation services for Veterans with PTSD. |
| Teachman and Luckey, 2007 US | National Longitudinal Study of Youth 1979 | Original survey included n=12,686 men and women between the ages of 14–21, annual to 1994 and bi-annual after This study included men at least 18 as of between 1979 and 2002. Surveyed in 1990, n =2,579 non-Veterans, n= 188 on active duty, n=15 on reserve, n= 74 active duty Veterans, n= 15 reserve Veterans | Earnings Factors: Race, education, age | Strong variations in the effect of military service according to race and education. While serving in the military, young men from disadvantaged backgrounds earn more than their civilian counterparts. Upon discharge, however, the income premium associated with military service tends to dissipate, and for White Veterans with at least a high school degree, an income deficit results. |
| Ministry of Defence, National Audit Office, Ministry of Defence. Comptroller and Auditor General, 2007 UK | Survey of all released over two year period prior to 2006 | N= 46,871 personnel who left the services during the two years prior to October 2006, N= 38,153 Service Leavers with addresses, n=4,997, Response rate = 13%. | Satisfaction with the Career Transition Partnership (CTP) and of the other services, CTP attendance and reasons for not attending, methods of finding employment, time to find employment, no. of jobs since leaving service, reason for leaving first | Most satisfied with the CTP and with the other facilities offered by the Department. Not all eligible to use the Career Transition Partnership do so. Those who did not attend cited many reasons including choice, lack of awareness, and work pressures. The majority found their first job on leaving the Services through traditional methods including newspapers, internet, and magazines. A significant number stated they got their first job through a friend or colleague. Over 50 per cent had a job to go to on discharge. A third had had two or more jobs since leaving the Services. The majority of them had made a choice to change jobs for reasons such as to gain additional responsibility or an increase in pay. Only seven per cent had been made redundant or dismissed. 62% were in paid full time work, 6% unemployed and seeking work. Early service leavers |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | | | civilian job, current employment status, area of employment Factors: Program participation | (who do not have access to CTP) were more likely to be unemployed and seeking work. |
| Rosenheck and Mares, 2007 US | Randomized control trial | Implementation of the IPS model of supported employment at nine VA programs for homeless Veterans. n= 308 control group phase 1, n=321 study group phase 2 | Employed days per month Intervention: IPS model of supported employment among homeless population | Measures of both client-level service delivery and site-level fidelity to IPS suggest that implementation was successful at most, but not all, sites. Overall, compared with Veterans in the phase 1 group, those in the phase 2 group had a better long-term work history at the time of program entry. When the analyses controlled for baseline differences, the mean number of competitive employment days per month over the two-year follow-up period was 15% higher for Veterans in phase 2 (8.4 days compared with 7.3 days; $p < .001$) and the mean number of days housed during follow-up was also higher in phase 2 (34.1 days compared with 29.8 days; $p = .04$), but there were no differences for other outcome measures. A sustained training program can be used to implement IPS in systems that have had little past experience with this approach. This effort was associated with improved employment outcomes and more rapid housing placement. |
| MacLean and Elder, 2007 US | Literature review | Literature review of research published over previous 15 years that explores the relationship between military service and the life course. Topics included criminal careers, marital status, lifelong health, and socioeconomic attainment. | Earnings Factors: Race, sex, combat exposure, post-military education benefits, training, rank, duration of service | Service during World War II appears to have had a neutral effect on Veterans' earnings attainment. Research consistently shows that military service impaired the socioeconomic attainment of white Veterans who served during the Vietnam era. Military service also disrupted the lives of white Veterans, both male and female, in recent all-volunteer force (AVF) era (post 1973). Recent studies suggest that female Veterans of the AVF era did not benefit from their service. Some studies report that duration of military service also matters such that more time in the military reduces civilian earnings compared to those with shorter service and non-Veterans. Most studies find that Veterans experienced lower socioeconomic attainment if they served in a war zone. Positive impacts of military service have also been found including the positive impacts of training and post-military education benefits and greater earnings of officers from WWII to the AVF and non-whites. |
| Autor and Duggan, 2007 US | March Supplement to the Current Population Survey (CPS) | n= 75,952 Vietnam-era Veteran males and all non-Veteran males born between 1941 and 1952 inclusive | Employment Factors: Disability compensation | Increase in unearned income resulting from 2001 expansions to the VA Disability Compensation (VDC) program (expanded medical eligibility criteria) substantially reduced labour-force participation among Vietnam-era Veterans. Given that the VDC does not itself affect the incentive to work, as do means-tested programs, these findings highlight the possibility that income effects on labour supply may be |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| | for calendar years 2000 through 2006 | | | sizeable for near-elderly adults in moderate to poor health. |
| Drebing et al, 2005 US | Randomized control trial | Nineteen dually diagnosed Veterans who entered VR in the Veterans' Administration's compensated work therapy (CWT) program were randomly assigned to CWT (n = 8) or to CWT with enhanced incentives (n = 11). | Employment, earnings Intervention: compensated work therapy (CWT) versus CWT with enhanced incentives | Over the first 16 weeks of rehabilitation, those in the incentives condition could earn up to \$1,006 in cash for meeting two sets of clinical goals: (a) remaining abstinent from drugs and alcohol and (b) taking steps to obtain and maintain a competitive job. Results indicate that relative to participants in the CWT-only group, those in the incentives condition engaged in more job-search activities, were more likely to remain abstinent from drugs and alcohol, were more likely to obtain competitive employment, and earned an average of 68% more in wages. These results suggest that rehabilitation outcomes may be enhanced by restructuring traditional work-for-pay contingencies to include direct financial rewards for meeting clinical goals. |
| GAO, 2005 US | Administrative data | Evaluation of delivery of vocational rehabilitation in the USVA | Not applicable | VA has taken steps to expedite vocational rehabilitation and employment services for service members returning from Afghanistan and Iraq with serious injuries. The agency has instructed its regional offices to make seriously injured service members a high priority for all VA assistance, including VR&E services, and has asked DOD to provide data that would help VA identify and monitor this population. It has also deployed additional staff to five major Army military treatment facilities where the majority of the seriously injured are treated. Pending an agreement with DOD for sharing data, VA has relied on its regional offices to learn who the seriously injured are and where they are located. We found that the regional offices we reviewed had developed information that varied in completeness and reliability. We also found that VA does not have a policy for maintaining contact with those with serious injuries who may later be ready for VR&E services but did not initially apply for VR&E. Nevertheless, some regional offices did attempt to maintain contact while other regional offices did not. |
| Smith, Schnurr and Rosenheck, 2005 US | Patient population | n=325 male Vietnam Veterans with severe or very severe PTSD who received treatment in the Department of Veterans Affairs system | Employment, part-time employment, earnings, occupation Factors: PTSD | Veterans with more severe symptoms were more likely to work part-time or not at all. Among workers, more severe symptoms were weakly associated with having a sales or clerical position. Conditional on employment and occupation category, there was no significant relation between PTSD symptom level and earnings. Alternative PTSD symptom measures produced similar results. Our findings suggest that even modest reductions in PTSD symptoms may lead to employment gains, even if the overall symptom level remains severe. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| Iversen et al, 2005 UK | King's Military Cohort | n= 8,195 service personnel who served in the armed forces in 1991; a third deployed to the Gulf (1990–91), a third deployed to Bosnia (1992–97) and the final third an 'Era' control group in the Armed Forces in 1991 but not deployed. Surveyed in 1997 and again in 2001 | Employment, full-time employment, unemployment Factors: Mental health, deployment | The majority of service leavers do well after leaving and are in full-time employment (87.5%). Those with poor mental health during service were more likely to leave and had a greater chance of becoming unemployed after leaving. Mental health problems appear to remain static for Veterans after leaving. Veterans of the Gulf War enjoyed more favourable employment outcomes, provided that they came home well. Only a minority of Veterans fare badly after service, even amongst those with active tours of duty behind them. Veterans with mental health problems during service seem to be at higher risk of social exclusion after leaving and therefore these individuals represent an especially vulnerable group of the Veteran population. |
| Teachman and Luckey, 2004 US | National Longitudinal Study of Mature Men (NLSMM) | n = 5,020 men followed from 1966 to 1990 | Earnings Factors: Pre-enlistment background, race | The effects associated with being a Veteran of WWII are modest and are mostly limited to less advantaged Veterans, and can be largely explained by differences in human capital investment or selectivity. The one finding that cannot be explained by differences in family background, human capital investments, and selectivity is a higher hourly wage rate associated with being a Black Veteran. |
| Vogt et al, 2004 US | Survey of a national sample of male and female members of the Vietnam generation | n= 3,016 (1,632 Vietnam, 716 non-Vietnam era Veterans, 668 non-Veterans) | Job satisfaction and occupational attainment (index that measures level of prestige) Factors: Combat exposure | Study 1 documented reasonably high levels of satisfaction and attainment among Vietnam Veterans, levels that differed minimally, on average, from those who served elsewhere and those who never served in the military. In Study 2, dimensions of war-zone stressor exposure were only marginally related to satisfaction and attainment, in contrast with research documenting strong relationships with psychopathology. These findings support the importance of expanding our thinking about dimensions of mental illness and mental health. |
| Drebing et al, 2004 US | Administrative data | n=228 applicants to a VR program sponsored by the Veterans Administration (VA) | Employment goals | This study describes the self-reported goals of 228 applicants to a VR program sponsored by the Veterans Administration (VA) and documents the relationship of those goals to participant background variables and outcomes. Participants endorsed a wide variety of goals for participation, including clinical and practical goals. Competitive employment was a goal of only 53% and was the primary goal of only 5%. The apparent contrast between the diversity of VA participant goals and the growing focus by VA rehabilitation professionals on competitive employment suggests that greater dialogue is needed between providers and consumers. |
| Hirsch and Mehay, 2003 | Reserve Components | n= 51,475 (31,525 Veterans and 19,950 | Earnings Factors: Rank, race, | The average civilian wage advantage among Veterans is 3 percent, essentially zero for enlisted personnel and 10 percent for officers. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
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| US | Survey, 1986 and 1992 | non-Veterans) | draft/volunteer enrolment | Among white enlisted personnel Veteran effects were negative but small, while averaging about 5 percent among African-Americans. Wage penalties resulting from Vietnam-era service were larger for white draftees than volunteers, while African-American draftees and volunteers realized gains. |
| Cooney et al, 2003 US | 1990 Public Use Microdata Sample L (a .45 percent sample drawn from the 1990 Census) | - | Earnings and family income Factors: Sex, race | Overall, African American women Veterans did not differ significantly from their non-serving counterparts, controlling for several factors associated with socioeconomic status. White, non-Hispanic women Veterans, however, suffered an earnings and family income penalty relative to similar non-serving women. The data suggest that this Veteran disadvantage may be due to the interaction of military service, child-bearing patterns, and educational attainment. |
| Prigerson HG, Maciejewski PK and Rosenheck RA, 2002 US | National Comorbidity Survey: part II subsample, 1990 to 1992 | n=2,583 men aged 18 to 54 mainly Vietnam Veterans | Job loss and unemployment Factors: Combat exposure | The following were significantly attributable to combat exposure: 27.8% of 12-month posttraumatic stress disorder, 7.4% of 12-month major depressive disorder, 8% of 12-month substance abuse disorder, 11.7% of 12-month job loss, 8.9% of current unemployment, 7.8% of current divorce or separation, and 21% of current spouse or partner abuse. Combat exposure results in substantial morbidity lasting decades and accounts for significant and multifarious forms of dysfunction at the national level. |
| Drew et al, 2001 US | Administrative data | n= 22,515 individuals who participated in the Veterans Health Administration compensated work therapy program between 1993 and 1998 | Employment, hours worked, earnings | Participants who were receiving disability benefits worked fewer hours in compensated work therapy each week, earned less income, had a higher dropout rate, and were less likely to be competitively employed at discharge. The amount of compensation and the type of program were modestly but significantly associated with participation in compensated work therapy and with outcome. Unintended effects of disability compensation programs discourage full participation in vocational rehabilitation and result in poorer rehabilitation outcomes. |
| Prokos and Padovic, 2000 US | 1990 Census data | - | Earnings Factors: Sex, age | While frequency distributions show that Veterans out-earned non-Veterans, this advantage reversed when controls were added. Younger women Veterans in particular suffered an earnings disadvantage compared to same-age non-Veterans and older Veterans; for older Veterans, however, military experience resulted in a wage premium. The findings offered little support for the idea that the military provides modern women a bridge to higher-paid civilian employment. Thus, while the military advertises to young people that it can further their careers, it does not offer a route to higher-paying jobs for all women. |
| Kerrigan et al, | Patient | n=529 Veterans with | Employment | The authors examined factors that influenced the employment rates of |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
|--|--------------------------------|--|---|--|
| 2000 US | population | severe alcohol and other substance use disorders | Intervention: hospitalization program | 529 Veterans with severe alcohol and other substance use disorders who were being treated at an addictions partial hospitalization program. The employment rate was significantly higher for Veterans who completed the hospitalization program, participated in a Veterans Industries work-for-pay program, and received drug-free supportive housing. |
| Angrist, 1998 US | Administrative data | Men aged 17 to 22 who applied to the military from 1976 to 1982, followed from 1974 to 1999, civilian comparator group | Employment and earnings Factors: Race | Soldiers who served in the early 1980s were paid considerably more than comparable civilians while in the military. Military service is associated with higher employment rates for Veterans after service. However, military service led to only modest long-run increases in civilian earnings of nonwhite Veterans while reducing civilian earnings of white Veterans. |
| Siegal at al, 1996 US | Administrative data | n=632 Veterans seeking treatment for substance abuse problems, Wright State University's Enhanced Treatment Project | Employed days, employment problems, satisfaction with employment Intervention: Strengths-based case management | Veterans in substance abuse treatment had improved in several areas of employment functioning, including number of days employed. Among clients who expressed interest in receiving assistance with employment-related issues, those who received strengths-based case management demonstrated additional improvement in employment functioning including more days employed, fewer employment problems and being less troubled about their employment situation. Correlations between improved employment functioning and improved functioning in other life areas further support the value of case management. |
| Vincent, Chamberlain and Long, 1994 New Zealand | Community sample | n= 573 New Zealand Vietnam War Veterans | Employment Factors: PTSD | 20% were identified as posttraumatic stress disorder (PTSD) cases. The association between PTSD diagnoses and a range of military experience variables and current demographic variables was examined. Significant differences were reported between cases and non-cases in terms of combat exposure, combat duties, length of service in Vietnam, length of service after Vietnam, total military service, and rank. PTSD cases also differed significantly from non-cases in terms of their age, marital status, income, educational qualifications, and employment status. These results confirm findings from previous studies showing that military experience in Vietnam is significantly associated with current levels of PTSD. They also suggest that Veterans with PTSD have poorer social adjustment as indexed by factors such as their current marital and employment status. |
| Bryant and Wilhite, 1990 US | Patient population | Examined sub-sample of those interviewed in 1985 and working full-time n=5,631 including 337 Veterans | Earnings Factors: Military training, length of service, service branch | Military training exerts a positive influence on civilian wages, depending on the length of service relative to the length of training. Branch of service also matters. Army, Navy and Marines were at a relative disadvantage compared to Air Force Veterans. |

| Author | Method/ Data Source | Study Details | Outcomes & Factors | Findings |
|---|-------------------------------|---|-----------------------|--|
| The Centers for Disease Control, 1988 US | Survey (telephone interviews) | Enlisted men who entered the US Army from 1965 to 1971, n=7,924 Vietnam, n=7,364 non-Vietnam Veterans | Employment, income | At the time of the study, the two groups of Veterans were similar in terms of level of education, employment, income, marital status, and satisfaction with personal relationships. Certain psychological problems, however, were significantly more prevalent among Vietnam Veterans than among non-Vietnam Veterans. These included depression (4.5% of Vietnam Veterans vs 2.3% of non-Vietnam Veterans), anxiety (4.9% vs 3.2%), and alcohol abuse or dependence (13.7% vs 9.2%). About 15% of Vietnam Veterans experienced combat-related posttraumatic stress disorder at some time during or after military service, and 2.2% had the disorder during the month before the examination. |

N=population frame
n=sample

Appendix B: LASS Labour-Market Measures

The labour-market information in the income study remained the same between LASS 2010 and 2013. However, the items covered by the survey were reduced by half, from 34 items to 16. Most of the questions excluded from LASS 2013 were those related to skills transferability and military occupation (See Appendix C for details). Among the items 18 deleted items, seven related to skills transferability were deleted either because they overlapped with the question on adjustment to civilian life or because they were could to be difficult to understand in focus group testing. Five items related to military occupation were deleted as they were replaced with administrative data. Three related to employment history were deleted as Statistics Canada reported that they did not perform well. Two items under the labour force module were deleted; one as it had not been previously analyzed and the other due to time concerns. One under the satisfaction with life module was deleted as it was similar to another item on satisfaction with main activity.

| LASS 2010 | LASS 2013* |
|---|--|
| <i>Income Study (Pre- and Post-Release Income)</i> | |
| 1. Total income | Same |
| 2. Earnings/Labour-market income | Same |
| 3. Receipt of Employment Insurance | Same |
| <i>Survey</i> | |
| <i>Labour Force</i> | |
| 1. Last week, did you work at a job or a business? | Same |
| 2. Last week, did you have a job or business from which you were absent? Yes, No | Same |
| 3. Did you have more than one job or business last week? Yes, No | Deleted as not previously analyzed. |
| 4. In the past four weeks, did you do anything to find work? Yes, No | Same |
| 5. Are you an employee or self-employed? Yes, No | Deleted due to time concerns. |
| 6. About how many hours a week do you usually work at your job or business? | Same |
| 7. Would you say that most days at work were...? Not at all stressful, not very stressful, etc | Same |
| <i>Satisfaction with Life</i> | |
| 8. How satisfied are you with your job or main activity? Very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied | Deleted as similar to satisfaction with main activity past 12 months |

| | |
|--|--|
| <i>Military Occupation</i> | |
| 9. What was your military occupation or code on the date of your release from the regular forces? | Deleted as obtained through record linkage |
| 10. For how long did you have this occupation? | “ |
| 11. Did you have a different military occupation code prior to your last one? | “ |
| 12. What was your previous military occupation or code? | “ |
| 13. For how long did you have this occupation? | “ |
| <i>Employment History</i> | |
| 14. Have you worked at a civilian job not including the reserve forces or ran a business since you were released from the regular forces? | Deleted as Statistics Canada indicated that this module did not perform well |
| 15. During the first 12 months after being released from the regular forces, what was your main activity? | “ |
| 16. Thinking about this activity in the first 12 months after release from the regular forces, how satisfied were you? Very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied | “ |
| 17. Now we would like you to think about the past 12 months. What has been your main activity in the past 12 months? | Same |
| 18. Thinking about this activity in the past 12 months, how satisfied are you? Very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied | Same |
| <i>Skills Transferability</i> | |
| 19. The experiences, education, and training obtained during my military service have helped me in my current or most recent civilian job. Do you...? Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree | Deleted as focus groups described as double-barreled. |
| 20. The actual tasks I perform at my current or most recent job are the same as the tasks from my military service. Do you...? Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree | Deleted as overlap with adjustment to civilian life question. |
| 21. The knowledge and skills I use at my current or most recent job are the same as the knowledge and skills used in my military service. Do you...? Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree | Same Kept as had limited overlap with adjustment to civilian life. |
| 22. Compared to your military service, the level of prestige of your current or most recent job is...? Much more, somewhat more, about the same, somewhat less, much less | Deleted as focus groups found difficult to interpret |

| | |
|--|--|
| 23. Compared to your military service, the level of skills and knowledge used in your current or most recent job is...? Much more, somewhat more, about the same, somewhat less, much less | Deleted |
| 24. Compared to your military service, the level of authority over people in your current or most recent job is...? Much more, somewhat more, about the same, somewhat less, much less | Deleted as focus groups found difficult to interpret |
| 25. Compared to your military service, your level of income in your current or most recent job is...? Much more, somewhat more, about the same, somewhat less, much less | Deleted |
| 26. Compared to your military service, your level of importance in your current or most recent job is...? Much more, somewhat more, about the same, somewhat less, much less | Deleted as focus groups found difficult to interpret |
| Restriction of Activities | |
| 27. Does a long-term physical condition or mental condition or health problem, reduce the amount or the kind of activity you can do: At Work? | Same |
| 28. Which one of the following is the best description of the cause of this condition? Responses includes Accident at work, Military work conditions, Civilian work conditions | Same |
| Health Status | |
| 29. Because of your physical health, during the past four weeks, were you: ... limited in the quality of your work or other activities? | Same |
| 30. Because of your physical health, during the past four weeks, did you: ... accomplish less than you would like? | Same |
| 31. Because of your physical health, during the past four weeks, were you:... limited in the quality of your work or other activities? | Slightly reworded |
| 32. Because of emotional problems, during the past four weeks, did you: ... accomplish less than you would like? | Slightly reworded |
| 33. Because of emotional problems, during the past four weeks, did you:... not do work or other activities as carefully as usual? | Same |
| Chronic Conditions | |
| 34. During the past four weeks, how much did pain interfere with your normal work, including work both outside the home and housework? | Same |

* see Van Til et al. "Methodology: Life After Service Studies 2013" for details

Appendix C: Employment Assistance Programs for Veterans in Canada and the US

Canada

Administered by CAF/DND

1. Second Career Assistance Network (SCAN)
2. SISIP Long-term Disability Insurance and Vocational Rehabilitation Program

Administered by VAC

3. Career Transition Services
4. Hire a Veteran
5. Rehabilitation Program (Vocational Assistance)

Administered by Private Sector

6. Algonquin College Education Bursary
7. BCIT
8. Canada Company
9. Canadian Force Liaison Council (CFLC)
10. Forces@Work (Prospect Human Resources)
11. Helmets to Hardhats
12. Northern Alberta Institute of Technology (NAIT)
13. PTSD Coach Canada
14. Prince's Operational Entrepreneur
15. Treble Victor Group
16. True Patriot Love
17. Veteran's Transition Program (UBC)
18. Wounded Warriors

United States Department of Defence (DOD) and/or Veterans Affairs (VA)

Administered by DOD

1. Always a Soldier program open to members and Veterans and administered by DOD Service- member and Family
2. Army Career & Alumni Program (ACAP) DOD/ Army
3. DOD Operation Warfighter Program (OWF) DOD/OSD Service- member
4. DOD SkillBridge DOD/ Services Service- member
5. Education and Employment Initiative (E2I)DOD/OSD Service- member
6. Hiring Heroes Program DOD/DCPAS Service- member, Veteran and Family
7. Job Fairs DOD/ ESGR Service- member
8. Partnership for Youth Success (PaYS) DOD/ Army Service- member
9. Troops to Teachers Program DOD/DANTES and Education Service- member

Administered by VA

10. Compensated Work Therapy VA/VHA Veteran
11. Feds for Vets VA/VESO Service- member and Veteran
12. VA for Vets VA/VESO Service- member and Veteran
13. VA Work-study Program VA/VBA Service-member and Veteran
14. Veterans Employment Center VA Service-member, Veteran, and Family
15. Vocational and Educational Counseling for Service members and Veterans
VA/VBA Service- member and Veteran
16. Vocational Assistance VA Veteran
17. Vocational Rehabilitation and Employment (VR&E) VA/VBA Service- member
and Veteran

Jointly Administered by DOD and VA

18. Transition Assistance Program (TAP) DOD, VA/VBA and Labor Service- member

Appendix D: LASS Detailed Tables

Table 1: Income and Earnings Indicators, LASS Income Study 2013¹

| Indicator | Category | Regular Force |
|-----------------------|---|---------------|
| Total Income | Average income pre-release | \$69,300 |
| | Average income for 3 years post-release | \$67,900 |
| | Change in income for 3 years post-release compared to pre-release | -2% |
| Earnings | Average earnings pre-release | \$66,700 |
| | Average earnings for 3 yrs post-release | \$42,600 |
| | Change in earnings for 3 yrs post-release compared to pre-release | -36% |
| Pensions ² | Average pension income as % of pre-release Earnings | 32% |
| | Served 20 years or more (eligible for full military superannuation pension) | 54% |

1. N= 51,990 Regular Force Veterans released from 1998 to 2011. 92% (47,950) matched income tax data in the year of release. Data in table includes a longitudinal cohort of 32,540 whose records matched to income data in the year prior to release and each of the first three years post-release.

2. Includes superannuation pension and RRSPs. VAC disability benefits (disability awards and pensions) are not included as they are not taxable. Canada Pension Plan and Old Age Security are categorized under government transfers.

Table 2: Main Activity Year After Release and Prior to Survey, LASS Survey 2010¹

| Indicator (confidence interval at 95%) | Category | Regular Force |
|---|--|-----------------|
| Main Activity year after release | Worked at a job or ran a business (including reserves) | 57% (54.6-58.5) |
| | Retired and not looking for work | 10% (9.2-11.5) |
| | Attending school or training | 15% (13.6-16.4) |
| | Looked for work | 8% (6.7-8.9) |
| | Caregiving | 2% (1.3-2.3) |
| | Was disabled or on disability | 7% (5.8-7.3) |
| | Other | 2% (1.8-3.0) |
| Satisfied or very satisfied with work ² | | 73% (70.5-75.3) |
| Main Activity past year (average of 7 years after release) | Worked at a job or ran a business (including reserves) | 75% (73.5-77.4) |
| | Retired and not looking for work | 9% (8.1-10.1) |
| | Attended school or training | 4% (3.0-4.6) |
| | Looked for work | 2% (1.8-3.0) |
| | Caregiving | 2% (1.4-2.5) |
| | Was disabled or on disability | 6% (5.4-6.8) |
| | Other | 1% (1.1-2.0) |
| Satisfied or very satisfied with work ² | | 80% (78.4-82.0) |

1. Regular Force Released 1998 to 2007 Sampling frame N=36,638 Revised population N=32,015 sample n=3,154.

2. Among those whose main activity was working.

Table 3: Comparisons to Canadians, LASS Survey 2013

| Indicator (confidence interval at 95%) | Regular Force | Canadians Adjusted ¹ |
|--|-----------------|---------------------------------|
| Unemployment rate ² | 6.9% (5.6-8.5) | 7.4% (0-13.4) |
| Employment rate ³ | 76% (74.3-78.3) | 72% (69.7-73.8) |
| Health related activity limitations at work ⁴ (LASS 2010) | 35% (33-37) | 13% (7-19) |
| Not in the labour Force ⁵ | 23% (21.9-24.8) | 18% (15.6-19.6) |

1. Canadian comparators are adjusted for age and sex.

2. Population that were not working and not absent from a job and looked for work in the previous four weeks as a proportion of the population in the labour market (employed plus unemployed). Canadian population uses March 2013 Labour Force Survey seasonally unadjusted data. This differs slightly from the estimate in Thompson et al, 2014a of 6.4% which used seasonally adjusted data and broader age groupings.

3. Percent of the population that worked at a job or business in the previous week.

4. Percent of those working who experienced activity limitations at work. See Thompson et al, 2014b.

5. Percent of the population who did not have a job or were permanently unable to work. See Keough et al, 2015.

Table 4: Employment Indicators, LASS Survey 2013

| Indicator (confidence interval at 95%) | Category | Regular Force |
|--|---|-----------------|
| Status at Survey | Employed (week prior to survey) | 72% (69.8-73.9) |
| | Unemployed (looked for work during 4 weeks prior to survey) | 5% (4.3-6.5) |
| | Not in the labour force ¹ | 23% (21.1-24.8) |
| Unemployment Rate | | 7% (5.6-8.5) |
| Worked since release (LASS 2010 - not captured in 2013) | | 89% (88.1-90.2) |
| Worked part-time among those working | | 10% (8.7-12.2) |
| Self-employed (LASS 2010 - not captured in 2013) | | 8% (6.5-8.5) |
| Military Occupation | Combat Arms | 26% (24.1-28.7) |
| | Administration etc. ² | 24% (22.3-26.4) |
| | Other | 49% (47.0-51.8) |
| | Comparable Civilian Occupation ³ | 67% (64.5-69.3) |
| Skills transfer from military to civilian job (strongly agree or agree) ⁴ | | 49% (46.4-51.6) |

1. Includes those who reported being permanently unable to work.

2. Also includes logistics, security, intelligence or emergency services.

3. Based on the matching of Military Occupation Codes (MOCs) to National Occupation Codes (NOCs). See MacLean *et al* 2015 for details.

4. Knowledge and skills used in current or most recent job were the same as those from military service. Among those currently working or worked in the past year.

Table 5: Labour-force Participation for Regular Force Veterans, LASS 2013¹

| % of total population (confidence interval at 95%) | | Not in the Labour Force ² 23% (21.0-24.8) | Unemployed ³ 5% (4.3-6.5) | Employed 72% (69.8-73.9) | |
|---|--|---|---|-----------------------------|-----------------|
| Difficult adjustment to civilian life | | 43% (38.2-47.3) | 40% (29.8-50.6) | 21% (19.2-23.8) | |
| Demographic and Service Characteristics | Average age at survey | 50 (49.1-51.5) | 39 (35.9-41.1) | 42 (41.6-42.8) | |
| | Male | 83% (78.5-85.8) | 92% (83.1-96.2) | 88% (85.5-89.3) | |
| | Education at Survey | Less than high school | 8% (5.9-11.2) | 8% F (3.5-16.8) | 4% (2.8-5.0) |
| | | High school | 51% (46.1-55.2) | 43% (32.6-53.7) | 40% (37.3-42.9) |
| | | Post-secondary | 29% (25.3-33.8) | 41% (30.5-52.0) | 38% (34.9-40.4) |
| | | University | 12% (9.8-14.3) | 8% F (5.1-13.6) | 19% (16.8-20.4) |
| | Low income (below LIM in 2012) | | 10% (7.2-13.2) | 20% F (11.7-31.5) | 6% (4.6-7.7) |
| | Length of Service | < 2 years | 7% F (4.9-10.5) | 32% F (22.5-44.1) | 25% (22.4-27.8) |
| | | 2 to 9 years | 14% (10.1-17.9) | 25% F (16.0-35.7) | 21% (18.9-23.9) |
| | | 10 to 19 years | 13% (10.1-17.0) | 12% F (6.3-20.3) | 11% (9.3-12.9) |
| | | ≥ 20 years | 66% (61.2-70.7) | 32% (23.6-40.8) | 43% (40.1-45.4) |
| | Release Type | Involuntary | 5% F (2.6-7.7) | 10% F (4.7-19.5) | 7% (5.7-9.0) |
| | | Medical | 41% (36.1-45.2) | 22% F (15.0-31.6) | 15% (12.8-16.7) |
| | | Voluntary | 30% (26.3-34.5) | 55% (44.6-65.5) | 59% (56.3-61.8) |
| | | Retirement Age | 11% (8.9-13.3) | 4% F (1.9-7.8) | 3% (2.1-3.3) |
| | | Service Complete | 14% (11.1-17.0) | 9% F (4.8-15.9) | 17% (14.7-18.6) |
| | Officer | | 20% (17.3-23.0) | 13% F (8.5-19.0) | 20% (18.1-21.5) |
| Army | | 47% (42.8-51.9) | 67% (57.4-75.9) | 55% (52.1-57.7) | |
| Military Occupation | Combat Arms | 21% (16.8-24.9) | 33% F (23.3-45.4) | 28% (25.1-30.6) | |
| | Administration etc. ⁴ | 33% (28.5-37.4) | 28% F (18.9-38.3) | 21% (19.0-23.7) | |
| | Other | 47% (42.1-51.3) | 39% (29.0-50.0) | 51% (48.1-53.9) | |
| | Comparable civilian occupation ⁵ | 72% (67.4-76.0) | 62% (50.6-72.9) | 66% (62.7-68.5) | |
| Health Status | Satisfied or very satisfied with life | | 71% (66.3-75.0) | 77% (67.0-85.2) | 91% (89.3-92.7) |
| | Satisfied or very satisfied with main activity | | 65% (60.5-69.5) | 46% (35.3-56.5) | 80% (77.8-82.4) |
| | Satisfied or very satisfied with finances | | 67% (62.4-71.2) | 35% (25.9-45.3) | 74% (71.1-76.2) |
| | Activity Limitation | Often or sometimes | 71% (67.0-74.9) | 48% (37.2-58.3) | 43% (40.0-45.5) |
| | | Needs Help with at least one daily activity task | 41% (36.8-45.8) | 20% F (13.1-30.1) | 13% (11.6-15.3) |
| | Self-perceived health (very good/excellent) | | 31% (27.2-35.2) | 50% (39.2-60.4) | 60% (56.9-62.4) |
| | Self-perceived mental health (very good/excellent) | | 44% (39.4-48.3) | 49% (38.4-59.6) | 68% (65.5-70.8) |

1. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

2. Not working and not looking for work. Includes those who reported being permanently unable to work.

3. Not employed but looking for work.

4. Also includes logistics, security, intelligence or emergency services.

5. Based on the matching of Military Occupation Codes (MOCs) to National Occupation Codes (NOCs) done at the Department of National Defence [Director Human Rights and Diversity (DHRD)] for the purposes of employment equity, updated February 2012. See MacLean et al 2015 for details

F sample size less than 30, estimate considered unreliable

Table 6: Demographic and Service Characteristics by Medical and Non-Medical Release, LASS 2013¹

| % of total population (confidence interval at 95%) | | Medical 21% | Non-medical 79% | Total 100% |
|---|----------------------------------|-----------------|--------------------|-----------------|
| Difficult adjustment to civilian Life | | 53% (47.6-57.5) | 21% (18.4-22.9) | 27% (25.2-29.5) |
| Average age at survey | | 47 (46.2-47.9) | 43 (42.3-43.7) | 44 (43.3-44.4) |
| Male | | 84% (79.5-86.9) | 87% (85.5-89.1) | 87% (84.9-88.1) |
| Education at survey | Less than high school | 6% F (4.2-9.2) | 5% (3.7-6.1) | 5% (4.1-6.2) |
| | High school | 44% (38.9-48.9) | 42% (39.7-44.9) | 43% (40.3-45.0) |
| | Post-secondary | 40% (35.1-44.9) | 35% (32.2-37.5) | 36% (33.6-38.2) |
| | University | 10% (7.8-12.8) | 18% (16.6-19.9) | 17% (15.1-17.9) |
| Served 20 years or more | | 55% (49.4-59.5) | 46% (43.0-48.2) | 48% (45.2-49.8) |
| Officer | | 10% (8.4-12.7) | 22% (20.2-23.6) | 19% (18.1-20.9) |
| Army at release | | 58% (53.2-63.0) | 53% (50.1-55.3) | 54% (51.6-56.2) |
| Military Occupation | Combat Arms | 23% (18.7-27.3) | 27% (24.9-30.2) | 26% (24.2-28.8) |
| | Administration etc. ¹ | 33% (28.7-38.2) | 22% (19.6-24.1) | 24% (22.3-26.4) |
| | Other | 44% (39.1-49.0) | 51% (48.0-53.6) | 49% (46.9-51.7) |
| Comparable civilian occupation ² | | 71% (66.1-75.4) | 66% (62.9-68.4) | 67% (64.5-69.2) |

1. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

2. Also includes logistics, security, intelligence or emergency services.

3. Based on the matching of Military Occupation Codes (MOCs) to National Occupation Codes (NOCs). See MacLean et al 2015 for details.

Table 7: Income and Earnings by Medical and Non-Medical Release, LASS 2013 Income Study¹

| % of total population | | Medical 22% | Non-medical 78% | Total 100% |
|---|---|----------------|--------------------|---------------|
| Total income | Average income pre-release | \$73,600 | \$68,125 | \$69,300 |
| | Average income for 3 years post-release | \$59,200 | \$70,285 | \$67,900 |
| | Change in income for 3 years post-release compared to pre-release | -20% | 3% | -2% |
| Earnings | Average earnings pre-release | \$72,400 | \$65,180 | \$66,700 |
| | Average earnings for 3 years post-release | \$29,700 | \$46,111 | \$42,600 |
| | Change in earnings for 3 years post-release compared to pre-release | -59% | -29% | -36% |
| Pension ² as % of Pre-release Earnings | | 35% | 29% | 32% |

1. N= 51,990 Regular Force Veterans released from 1998 to 2011. 92% (47,950) matched income tax data in the year of release. Data in table includes a longitudinal cohort of 32,540 whose records matched to income data in the year prior to release and each of the first three years post-release.

2. Includes superannuation pension and RRSPs. VAC disability benefits (disability awards and pensions) are not included as they are not taxable. Canada Pension Plan and Old Age Security are categorized under government transfers.

Table 8: Employment Details by Medical and Non-Medical Release, LASS 2010¹ and 2013 Survey²

| % of total population (confidence interval at 95%) | | Medical 21% | Non-medical 79% | Total 100% |
|--|--|-----------------|--------------------|-----------------|
| Main Activity year after release (LASS 2010) | Worked at a job or ran a business (including reserves) | 30% (27.5-33.6) | 65% (62.7-67.2) | 57% (54.6-58.7) |
| | Retired and not looking for work | 9% (7.2-10.8) | 11% (9.5-12.2) | 10% (9.2-11.5) |
| | Attending school or training | 27% (23.8-29.6) | 11% (9.7-12.9) | 15% (13.6-16.4) |
| | Looked for work | 6% (4.8-8.0) | 8% (7.0-9.7) | 8% (6.7-8.9) |
| | Cared or nurtured a family member or partner | 2% F (1.4-3.4) | 2% (1.0-2.2) | 2% (1.3-2.3) |
| | Was disabled or on disability | 23% (20.8-25.9) | 1% F (0.7-1.6) | 7% (5.8-7.3) |
| | Other | 2% F (1.6-3.6) | 2% (1.7-3.2) | 2% (1.8-3.0) |
| Satisfied or very satisfied with work ³ | | 68% (61.9-73.0) | 74% (71.0-76.3) | 73% (70.5-75.3) |
| Main Activity past year (LASS 2010) | Worked at a job or ran a business (including reserves) | 60% (57.2-63.3) | 80% (78.4-82.7) | 75% (73.8-77.0) |
| | Retired and not looking for work | 10% (8.0-11.7) | 9% (7.7-10.2) | 9% (8.1-10.1) |
| | Attending school or training | 3% (2.3-4.3) | 4% (3.0-5.1) | 4% (3.0-4.6) |
| | Looked for work | 3% (1.8-4.0) | 2% (1.6-3.1) | 2% (1.8-3.0) |
| | Cared or nurtured a family member or partner | 2% F (1.5-3.3) | 2% (1.2-2.5) | 2% (1.4-2.4) |
| | Was disabled or on disability | 20% (17.9-22.7) | 2% (1.1-2.2) | 6% (5.4-6.8) |
| | Other | 2% F (1.1-2.7) | 1% (0.9-2.0) | 1% (1.1-1.9) |
| Satisfied or very satisfied with work ³ | | 72% (68.2-75.8) | 82% (80.1-84.2) | 80% (78.4-82.0) |
| Status at time of survey | Employed | 50% (45.2-55.2) | 78% (75.4-79.6) | 72% (69.8-73.9) |
| | Unemployed | 6%F (3.7-8.3) | 5% (4.1-6.7) | 5% (4.3-6.5) |
| | Not in the Labour Force ⁴ | 44% (39.3-49.2) | 17% (15.4-19.1) | 23% (21.1-24.8) |
| Unemployment Rate | | 10% (6.7-14.7) | 6% (4.9-8.1) | 7% (5.6-8.4) |
| Worked part-time among those working | | 13% (9.2-18.6) | 10% (8.2-11.9) | 10% (8.8-12.2) |
| Skills transfer from military to civilian job (strongly agree or agree) ⁵ | | 42% (35.6-49.4) | 51% (47.5-53.6) | 49% (46.5-52.2) |

1. Regular Force Released 1998 to 2007 Sampling frame N=36,638 Revised population N=32,015 sample n=3,154.

2. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

3. Among those whose main activity was working.

4. Includes those who reported being permanently unable to work.

5. Knowledge and skills used in current or most recent job are the same as those from military service. Among those currently working or worked in the past year.

F sample size less than 30, estimate considered unreliable.

Table 9: Health Status by Medical and Non-Medical Release, LASS 2013 Survey¹

| % of total population (confidence interval at 95%) | | Medical 21% | Non-medical 79% | Total 100% |
|--|---|-----------------|--------------------|-----------------|
| Activity Limitation | Often or sometimes | 89% (85.9-92.1) | 39% (36.4-41.5) | 50% (47.2-51.9) |
| | Needs Help with at least one daily activity task | 57% (51.5-61.4) | 11% (9.1-12.2) | 20% (18.4-22.1) |
| Self-perceived health (very good or excellent) | | 15% (11.8-18.6) | 63% (59.9-65.0) | 53% (50.2-54.8) |
| Self-perceived mental health (very good or excellent) | | 32% (27.4-36.7) | 70% (66.9-71.9) | 62% (59.3-63.9) |

1. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

Table 10: Demographic & Service Characteristics by Gender, LASS 2013 Survey¹

| % of total population (confidence interval at 95%) | | Female 13% | Male 87% | Total 100% |
|---|----------------------------------|-----------------|-----------------|-----------------|
| Difficult adjustment to civilian Life | | 30% (24.5-36.6) | 27% (24.6-29.1) | 27% (25.2-29.4) |
| Average age at survey | | 43 (41.5-44.4) | 44 (43.4-44.6) | 44 ((43.3-44.4) |
| Education at survey | Less than high school | 4% F (2.0-8.0) | 5% (4.2-6.4) | 5% (4.1-6.2) |
| | High school | 38% (32.1-45.0) | 43% (40.8-45.8) | 43% (40.3-45.0) |
| | Post-secondary | 38% (31.7-44.6) | 36% (33.1-38.1) | 36% (33.6-38.2) |
| | University | 20% (15.8-24.2) | 16% (14.5-17.5) | 17% (15.1-17.9) |
| Served 20 years or more | | 39% (33.4-45.7) | 49% (46.3-51.2) | 48% (45.2-49.8) |
| Officer | | 20% (16.1-24.2) | 19% (18.0-21.0) | 19% (18.1-20.9) |
| Army at release | | 40% (33.9-46.9) | 56% (53.5-58.4) | 54% (51.5-56.1) |
| Military Occupation | Combat Arms | 5% F (2.6-8.7) | 30% (27.3-32.4) | 26% (24.1-28.7) |
| | Administration etc. ¹ | 53% (46.3-59.5) | 20% (17.8-21.8) | 24% (22.3-26.4) |
| | Other | 42% (35.8-48.9) | 51% (47.9-53.1) | 50% (47.0-51.8) |
| Comparable civilian occupation ² | | 87% (82.2-91.4) | 64% (61.1-66.2) | 67% (64.5-69.3) |

1. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

2. Also includes logistics, security, intelligence or emergency services.

3. Based on the matching of Military Occupation Codes (MOCs) to National Occupation Codes (NOCs). See MacLean et al 2015 for details.

Table 11: Income and Earnings by Gender, LASS 2013 Income Study¹

| % of total population (confidence interval at 95%) | | Female 13% | Male 87% | Total 100% |
|---|---|---------------|-------------|---------------|
| Total income | Average income pre-release | \$62,100 | \$70,400 | \$69,300 |
| | Average income for 3 years post-release | \$48,800 | \$70,700 | \$67,900 |
| | Change in income for 3 years post-release compared to pre-release | -21% | 0.4% | -2% |
| Earnings | Average earnings pre-release | \$58,900 | \$67,900 | \$66,700 |
| | Average earnings for 3 years post-release | \$28,800 | \$44,600 | \$42,600 |
| | Change in earnings for 3 years post-release compared to pre-release | -51% | -34% | -36% |
| Pension ² as % of Pre-release Earnings | | 26% | 33% | 32% |

1. N= 51,990 Regular Force Veterans released from 1998 to 2011. 92% (47,950) matched income tax data in the year of release. Data in table includes a longitudinal cohort of 32,540 whose records matched to income data in the year prior to release and each of the first three years post-release.

2. Includes superannuation pension and RRSPPs. VAC disability benefits (disability awards and pensions) are not included as they are not taxable. Canada Pension Plan and Old Age Security are categorized under government transfers.

Table 12: Employment Details by Gender, LASS 2010¹ and 2013 Survey²

| % of total population (confidence interval at 95%) | | Female 13% | Male 87% | Total 100% |
|--|--|-----------------|-----------------|-----------------|
| Main Activity year after release (LASS 2010) | Worked at a job or ran a business (including reserves) | 39% (33.4-44.4) | 59% (56.9-61.0) | 57% (54.6-58.5) |
| | Retired and not looking for work | 11% (7.9-15.0) | 10% (9.1-11.4) | 10% (9.2-11.5) |
| | Attending school or training | 22% (18.0-27.2) | 14% (12.5-15.5) | 15% (13.6-16.4) |
| | Looked for work | 6% F (3.8-9.4) | 8% (6.8-9.2) | 8% (6.7-8.9) |
| | Cared or nurtured a family member or partner | 7% F (4.4-10.1) | 1% (0.7-1.5) | 2% (1.3-2.3) |
| | Was disabled or on disability | 10% (7.6-13.5) | 6% (5.3-6.8) | 6% (5.8-7.3) |
| | Other | 5% F (3.1-8.2) | 2% (1.5-2.7) | 2% (1.8-3.0) |
| Satisfied or very satisfied with work ³ | | 64% (55.0-72.7) | 74% (71.2-76.2) | 73% (70.5-75.3) |
| Main Activity past year (LASS 2010) | Worked at a job or ran a business (including reserves) | 63% (57.6-68.2) | 77% (75.4-78.7) | 75% (73.8-77.0) |
| | Retired and not looking for work | 11% (7.9-14.8) | 9% (7.8-9.9) | 9% (8.1-10.1) |
| | Attending school or training | 4% F (2.2-6.2) | 4% (3.0-4.7) | 4% (3.0-4.6) |
| | Looked for work | 2% F (0.7-4.2) | 2% (1.9-3.2) | 2% (1.8-3.0) |
| | Cared or nurtured a family member or partner | 8% (5.8-12.2) | 1% (0.6-1.4) | 2% (1.4-2.4) |
| | Was disabled or on disability | 10% (7.5-13.3) | 6% (4.9-6.3) | 6% (5.4-6.8) |
| | Other | 2% F (1.0-4.6) | 1% (1.0-1.9) | 1% (1.1-2.0) |
| Satisfied or very satisfied with work ³ | | 83% (77.5-87.8) | 80% (77.9-81.8) | 80% (78.4-82.0) |
| Status at time of survey | Employed | 67% (60.5-72.6) | 73% (70.4-74.8) | 72% (69.8-73.9) |
| | Unemployed | 3% F (1.5-7.0) | 6% (4.5-7.0) | 5% (4.3-6.5) |
| | Not in the Labour Force ⁴ | 30% (24.4-36.1) | 22% (19.9-23.7) | 23% (21.0-24.8) |
| Unemployment Rate | | 5% F (2.1-9.8) | 7% (5.8-8.9) | 7% (5.6-8.4) |
| Worked part-time among those working | | 25% (17.9-33.3) | 9% (7.7-11.2) | 11% (9.4-13.1) |
| Skills transfer from military to civilian job (strongly agree or agree) ⁵ | | 40% (32.3-47.7) | 51% (47.8-53.8) | 49% (46.6-52.2) |

1. Regular Force Released 1998 to 2007 Sampling frame N=36,638 Revised population N=32,015 sample n=3,154.

2. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.

3. Among those whose main activity was working.

4. Includes those who reported being permanently unable to work.

5. Knowledge and skills used in current or most recent job are the same as those from military service. Among those who were currently working or worked in the past year.

F sample size less than 30, estimate considered unreliable

Table 13: Health Status by Gender, LASS 2013 Survey¹

| % of total population (confidence interval at 95%) | | Female 13% | Male 87% | Total 100% |
|---|---|-----------------|-----------------|-----------------|
| Activity Limitation | Often or sometimes | 50% (43.5-56.6) | 49% (46.9-51.9) | 50% (47.2-51.8) |
| | Needs Help with at least one daily activity task | 30% (24.8-36.4) | 19% (16.7-20.6) | 20% (18.4-22.0) |
| Self-perceived health (very good or excellent) | | 51% (44.6-57.6) | 53% (50.3-55.3) | 53% (50.2-54.9) |
| Self-perceived mental health (very good or excellent) | | 58% (51.5-64.4) | 62% (59.7-64.6) | 62% (59.3-63.9) |

1. Regular Force Released 1998 to 2012 Sampling frame N=56,129 Revised population N=55,061 sample n=2,329.