



# Vocational Rehabilitation and Employment (VR&E) Longitudinal Study (PL 110-389 Sec. 334)

Annual Report 2017 for FY 2016

U.S. Department of Veterans Affairs

Contract No. VA101V-16-P-3700

July 31, 2017

Submitted by:

Economic Systems Inc. (PRIME CONTRACTOR)  
3120 Fairview Park Drive, Suite 500  
Falls Church, VA 22042  
703.642.5225  
[www.econsys.com](http://www.econsys.com)

Westat, Inc. (SUBCONTRACTOR)  
1600 Research Boulevard  
Rockville, MD 20850  
301.251.1500

## Contents

Executive Summary.....	1
1. Overview of the Vocational Rehabilitation and Employment Program .....	1
1.A.    Services Provided by the VR&E Program.....	3
1.B.    Evolution of Vocational Rehabilitation for Veterans .....	8
1.C.    The VR&E Process .....	10
1.D.    VR&E Program Participants as of FY 2016 .....	12
1.E.    VR&E Program Participants with Successful Rehabilitations .....	16
2. VR&E Longitudinal Study .....	1
2.A. Introduction to the VR&E Longitudinal Study .....	3
2.B. Data Sources used for the VR&E Longitudinal Study.....	7
2.C. Policy and Environmental Conditions at Cohort Entry .....	9
2.D. Trends in a U.S. Economic and Veteran Employment Context .....	14
2.E. Interpreting Longitudinal Study Findings.....	17
3. Current Findings as of FY 2016 .....	1
3.A. Veteran Satisfaction.....	4
3.B. Select Characteristics of VR&E Participants.....	7
3.C. Program Outcomes (Rehabilitation and Discontinuation).....	19
3.D. Employment and Standard of Living Outcomes .....	27
3.E. Participant Re-entries .....	38
3.F. Cohort Comparisons.....	42
4. Summary of Findings and Early Conclusions .....	1
4.A. Veteran Satisfaction.....	1
4.B. Demographic Differences at Program Entry .....	1
4.C. Program Outcomes (Rehabilitation and Discontinuation).....	3
4.D. Employment and Standard of Living Outcomes .....	4
4.E. Future Reports .....	7

## List of Tables

<u>Table</u>	<u>Page</u>
E-1 Summary of Outcomes for VR&E Participants, by Cohort, as of end of FY 2016 .....	E-9
1D-1 Veterans who Received VR&E Benefits for all or part of FY 2016 .....	1-12
1D-2 Veterans who Received Subsistence as part of a Training Program during FY 2016.....	1-14
1D-3 FY 2016 VR&E Appropriations .....	1-15
1E-1 FY 2016 Career Categories of Veterans who Achieved Rehabilitation .....	1-18
2A-1 Data Elements Mandated by Section 334 of Public Law 110-389 to be Collected for the VR&E Longitudinal Study .....	2-4
2B-1 VR&E Longitudinal Survey Completions during 2016 Administration .....	2-8
2C-1 End Strength Levels Authorized in the National Defense Authorization Act FY 2007 through FY 2015.....	2-10
2C-2 Number of Military Separations from FY 2007 through FY 2014 .....	2-10
2C-3 Number of Veterans with Service-Connected Disabilities Receiving Compensation from FY 2008 through FY 2014 .....	2-12
2C-4 Number of Veterans with Service-Connected Disabilities Who Began Receiving Compensation by Disability Rating, FY 2007 through FY 2014.....	2-13
3-1 Successful Outcomes by Code for All Three Cohorts.....	3-3
3A-1 Factors that Contribute to Overall Program Satisfaction as of end of FY 2016 .....	3-6
3B-1 Select Characteristics of VR&E Participants Examined in this Study .....	3-7
3B-2 Demographic Characteristics of VR&E Participants by Cohort, as of the end of FY 2016 .....	3-8
3B-3 Percentage of VR&E Participants with a Primary Diagnosis of Post-Traumatic Stress Disorder as of end of FY 2015 .....	3-10
3C-1 Factors that Contribute to Achieving Rehabilitation and Time to Rehabilitation as of end of FY 2016 .....	3-24
3C-2 Factors that Contribute to Discontinuation as of end of FY 2016 .....	3-26
3D-1 Factors that Contribute to Employment Outcomes as of end of FY 2016.....	3-35
3D-2 Factors that Contribute to Income as of end of FY 2016.....	3-37
3E-1 Number of Veterans who Re-entered the VR&E Program after Discontinuation or Rehabilitation, by Cohort .....	3-38
4-1 Employment and Standard of Living Outcome Measures Analyzed in this Study .....	4-5

## List of Figures

<u>Figure</u>		<u>Page</u>
E-1	Three Key Features of the VR&E Service-Delivery Model .....	E-1
E-2	Key Demographic Trends of VR&E Participants at Program Entry .....	E-4
E-3	Percentage of Participants who are Persisting, Rehabilitated, or Discontinued in FY 2016, by Cohort.....	E-5
E-4	Class Success and Persistence Rates by Cohort and for VR&E Overall.....	E-7
E-5	Number of VR&E Participants who Re-entered the Program from a Discontinued or Rehabilitated Status (all Cohorts Combined) .....	E-10
E-6	Conditional Median Earnings from Employment (for those with positive earnings) Within 5 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	E-11
E-7	Conditional Median Earnings from Employment (for those with positive earnings) Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	E-12
1A-1	Services Available under Chapter 31 .....	1-3
1A-2	Three Key Features of the VR&E Service-Delivery Model .....	1-5
1A-3	Five VR&E Tracks of Services .....	1-6
1B-1	Chronological History of Legislative Changes to the VR&E Program.....	1-9
1C-1	Entitlement Criteria for the VR&E Program.....	1-11
1E-1	Rehabilitation Outcomes by Employment Handicap, FY 2016 .....	1-16
1E-2	Types of Rehabilitation Outcomes, FY 2016 .....	1-17
1E-3	FY 2016 Career Sectors of Veterans who Achieved Rehabilitation (in %) .....	1-19
2-1	Section 334 of the Veterans' Benefits Improvement Act of 2008 Requiring VA to Conduct a Longitudinal Study of VR&E Program.....	2-1
2-2	Number of VR&E Participants in Each Cohort of the Longitudinal Study.....	2-2
2-3	Definition of Cohort Subgroups included in the Analysis .....	2-2
2A-1	Cohort Appropriate Comparison Points .....	2-6
2C-1	Number of Veterans with a Service-Connected Disability, 2000 - 2014 .....	2-11
2C-2	Number of Veterans with a Service-Connected Disability by Disability Rating Groups, 2000 - 2014 .....	2-12

2D-1	Annual Unemployment Rates for the Total Population, 18 Years and Older by Veteran Status, 2006 - 2014.....	2-14
2D-2	Unemployment Rates for Veterans Compared to Non-Veterans, July 2009 through July 2013 (in percent).....	2-15
2D-3	Distribution of the Year of Military Separation (from 1980 to 2014) for Cohorts I, II, and III.....	2-16
3-1	Class Success Rates by Cohort, to date (FY16).....	3-2
3-2	Class Persistence Rates by Cohort, to date (FY 16).....	3-3
3A-1	Percentage of VR&E Participants Reporting Moderate or High Overall Satisfaction with the Program by Participation Status as of end of FY 2016, by Cohort .....	3-5
3B-1	Key Demographic Trends of VR&E Participants at Program Entry .....	3-9
3B-2	Veterans with a Combined Disability Rating of 60 Percent or Higher .....	3-10
3B-3	Mandated Characteristics of VR&E Participants by Participation Status as of end of FY 2016, by Cohort .....	3-12
3B-4	Track Selection of VR&E Participants by Cohort as of end of FY 2016 .....	3-13
3B-5	Receipt of Other Benefits by Participation Status as of end of FY 2016, by Cohort .....	3-16
3B-6	Education or Training Characteristics of VR&E Participants by Participation Status as of end of FY 2016, by Cohort .....	3-18
3C-1	Cumulative Percentage of VR&E Participants who have Rehabilitated, Discontinued, or are Still Persisting by Cohort as of each Study Year .....	3-20
3C-2	Annual Percentage of VR&E Longitudinal Study Participants and GAO 14-61 Study Participants who Achieved Rehabilitation within 5 Years of Program Start.....	3-22
3D-1	Employment and Standard of Living Outcomes by Cohort (in %) .....	3-28
3D-2	Percentage of VR&E Participants who Achieved Rehabilitation or Discontinued and are Employed in a Job that Matches or Somewhat Matches VR&E Training, as of the end of FY 2016.....	3-29
3D-3	Employment Rates for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, as of end of FY 2016 .....	3-30
3D-4	Unemployment Benefits Usage Rate of VR&E Participants Over Time, by Cohort .....	3-31
3D-5	Earnings and Income Outcomes by Cohort .....	3-33
3E-1	Number of VR&E Participants who Re-entered the Program from a Discontinued or Rehabilitated Status (all Cohorts Combined) .....	3-39
3E-2	FY 2016 Status of Veterans who Re-entered the VR&E Program after Discontinuation, by Cohort .....	3-40

3E-3	FY 2016 Status of Veterans who Re-entered the VR&E Program after Rehabilitation, by Cohort.....	3-41
3F-1	Cumulative Percentage of VR&E Participants in an Independent Living Track who Achieved Rehabilitation, Discontinued, or are Still Persisting as of each Study Year, by Cohort .....	3-44
3F-2	Cumulative Percentage of VR&E Participants in an Employment Track who Achieved Rehabilitation, Discontinued, or are Still Persisting as of each Study Year, by Cohort.....	3-45
3F-3	Percentage of VR&E Participants Receiving Subsistence Allowance, Within First 5 Years of Program Participation, by Cohort .....	3-46
3F-4	Employment Rates Within 5 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort.....	3-48
3F-5	Employment Rates Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	3-49
3F-6	Conditional Median Earnings from Employment (for those with positive earnings) Within 5 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	3-50
3F-7	Conditional Median Earnings from Employment (for those with positive earnings) Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	3-51
3F-8	Unconditional Median Annual Income Within 5 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	3-52
3F-9	Unconditional Median Annual Income Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort .....	3-53
4-1	Percentage of VR&E Participants Reporting Moderate or High Overall Satisfaction with the Program as of end of FY 2016.....	4-1
4-2	Key Demographic Trends of VR&E Participants at Program Entry.....	4-2
4-3	Past Year Employment Rate for VR&E Participants Who Achieved Rehabilitation or Discontinued from an Employment Plan as of end of FY 2016.....	4-6

# EXECUTIVE SUMMARY

## Overview of the Vocational Rehabilitation and Employment (VR&E) Program

The Vocational Rehabilitation and Employment (VR&E) program, also known as the Chapter 31 program, assists Veterans and Servicemembers with service-connected disabilities and an employment barrier to prepare for, obtain, and maintain suitable employment. VR&E provides comprehensive services to include vocational assessment, rehabilitation planning, and employment services. For Veterans with service-connected disabilities so severe that they cannot immediately consider work, the VR&E program offers services to improve their ability to live as independently as possible in their families and communities. VR&E also administers Chapter 36, Chapter 35, and Chapter 18 benefits under Title 38 U.S.C. These programs provide benefits to eligible dependents, spouses, and beneficiaries. However, these participants are not represented in the longitudinal study.

VR&E administers these benefits through a decentralized service-delivery network comprised of nearly 350 offices. As of the end of fiscal year (FY) 2016, the field network includes a VR&E workforce of 1,335 staff, including Vocational Rehabilitation Counselors, Employment Coordinators, support staff, and managers. The network includes nearly 200 Integrated Disability Evaluation System counselors on 71 military installations, 79 VetSuccess on Campus counselors at 94 college locations, and 142 out-based VR&E offices. Figure E-1 displays the key features that distinguish the VR&E service-delivery model from the service-delivery strategy of VBA's other lines of business.

Figure E-1. Three Key Features of the VR&E Service-Delivery Model



### Multi-Year Cycle

The cycle of an active VR&E case may extend up to and beyond six years. This is necessary to provide adequate training for Veterans so that they can obtain employment that accommodates their disabilities and provides a career foundation that is appropriate.



### Face-to-face Interactions<sup>1</sup>

VR&E requires regular face-to-face interactions with Veterans to deliver benefits and services, in contrast to VBA's other lines of business that focus primarily on claims processing.



### Largest Out-Based Network within VBA

VR&E has the largest out-based network of any VBA business line with nearly 350 locations nationwide.

Source: EconSys Study Team

<sup>1</sup> M28R, Vocational Rehabilitation and Employment Service Manual, Part V, Section A, Chapter 2

## VR&E Longitudinal Study

In 2008, Congress passed the Veterans' Benefits Improvement Act to improve and enhance benefits for Veterans. A section of this legislation required VA to conduct a 20-year longitudinal study of Veterans who applied for and entered a plan of services in the VR&E program in FY 2010, FY 2012, and FY 2014. These three cohorts will be followed annually for 20 years. Survey data collection started in 2012 for the first two cohorts and in 2014 for the last cohort.

The primary goal of the longitudinal study of the VR&E program is to determine the long-term post-program outcomes associated with Chapter 31 Veterans. Section 334 of Public Law 110-389 (Appendix A) requires VA to report to Congress annually on 16 specific data elements. The specific outcomes of interest in the mandate are:

1. Employment;
2. Income;
3. Home ownership; and
4. Use of other supplemental programs, measured by receipt of Social Security Disability Insurance, Supplemental Security Income, or unemployment benefits.

The VR&E Longitudinal Study data sources used for analysis include: (1) self-reported survey data collected from a representative sample of cohort members; and (2) Administrative Data. Details about the survey methodology are included in Appendix B.

Given the majority of cohort members are still persisting in the program, post-program findings are still preliminary at this point in the study. The results of the study will be used to enhance the services VR&E provides to Veterans.



## Comparison of Cohort Findings

The number of participants in the VR&E program has increased with each cohort. Cohort II is 43 percent larger than Cohort I. Cohort III is 95 percent larger than Cohort I.

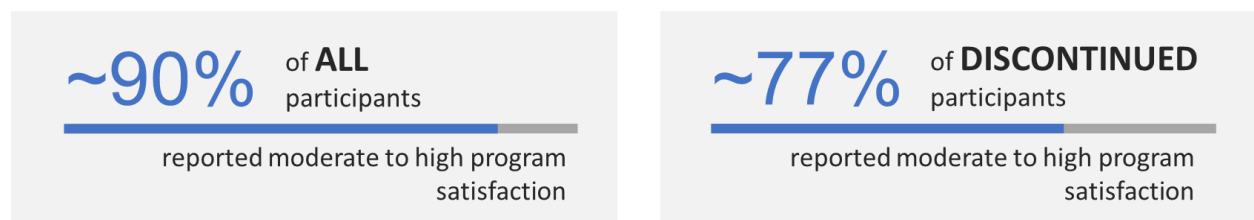
Number of VR&E Participants by Cohort		
<b>10,791</b> <b>Cohort I (FY 2010)</b>	<b>15,396</b> <b>Cohort II (FY 2012)</b> <i>43% larger than Cohort I</i>	<b>21,082</b> <b>Cohort III (FY 2014)</b> <i>37% larger than Cohort II</i> <i>95 % Larger than Cohort I</i>

Factors that may have contributed to the increase in cohort size include, but are not limited to:

- Increased number of recently separated Veterans;
- VA's efforts to reduce the disability claims backlog with the additional adjudicated claims, therefore increasing the number of potential eligible Veterans entering the program; and
- Changes in the provision of monthly subsistence allowances for VR&E program participants, who may also qualify for Post 9/11 GI Bill Benefits.

## Veteran Satisfaction

Veteran satisfaction with VR&E is high for all three cohorts. Nearly 90 percent of all Veterans have moderate to high levels of satisfaction with the program. For all three cohorts, at least two-thirds of all Veterans rated their overall satisfaction as high. Satisfaction was higher for rehabilitated Veterans compared to those who were either persisting or discontinued.

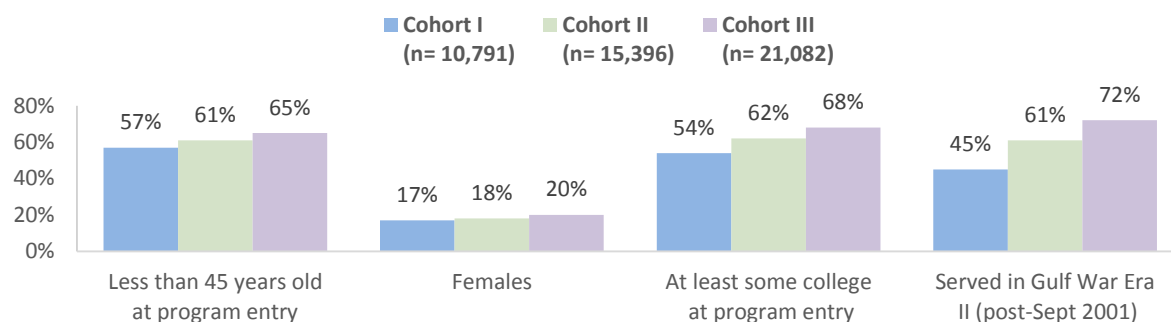


When compared to satisfaction for FY 2015, Cohort III members who discontinued from the program saw the largest increase in program satisfaction. In FY 2015, only 68 percent of members in the group listed their satisfaction as moderate or high. Overall satisfaction for discontinued Veterans in Cohort III increased 8 percentage points to 76 percent.

## Demographics and Participant Characteristics

The three cohorts are similar demographically; however, as shown in Figure E-2, more recent cohorts have a slightly larger proportion of female Veterans, are significantly younger, are more likely to have served during the Gulf War II era, and have more education when starting the program. In addition, Cohort II (FY 2012) and III (FY 2014) have higher percentages of Veterans with a post-traumatic stress disorder (PTSD) rating compared to Cohort I. This study follows the same cohorts each year. Therefore, the findings of this section on demographics and participants characteristics (such as age, gender, and so on) may only slightly change from year to year

Figure E-2. Key Demographic Trends of VR&E Participants at Program Entry



Source: Administrative Data, FY 2016

- Approximately three-quarters of members of each cohort have a Serious Employment Handicap (SEH). An SEH is defined as a significant impairment of an individual's ability to prepare for, obtain, or retain employment consistent with his/her abilities, aptitudes, and interests.
- The majority of members of each cohort served in the Gulf War era.
- Females make up a larger percentage of the program participants (17-20 percent) than the overall Veteran population (9 percent). However, the distribution of females among the VR&E cohorts is more consistent with the proportion of females represented among all Gulf War Era Veterans (about 18 percent).
- On average, cohort members have a service-connected disability rating of about 60%. Comparing service-connected disability ratings for cohort members with that of the overall Veterans population with a service-connected disability reveals that VR&E participants have a higher service-connected disability rating than the "average" Veteran with a service-connected disability.
- Participants who have achieved rehabilitations have, on average, served more months on active duty.
- Almost one-quarter of participants in each cohort have a primary rating of PTSD.
- On average, cohort members used VA-provided health care services in FY 2016 more frequently than the overall Veteran population.

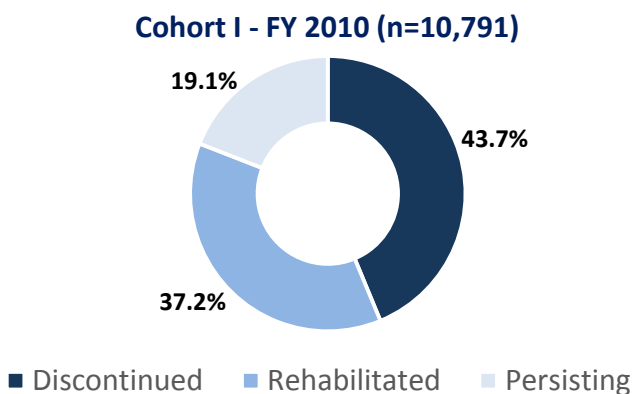
The **average age** of VR&E participants has **decreased** over time.

More participants are reporting **higher levels of prior education** at program entry.

## Program Outcomes (Rehabilitation and Discontinuation)

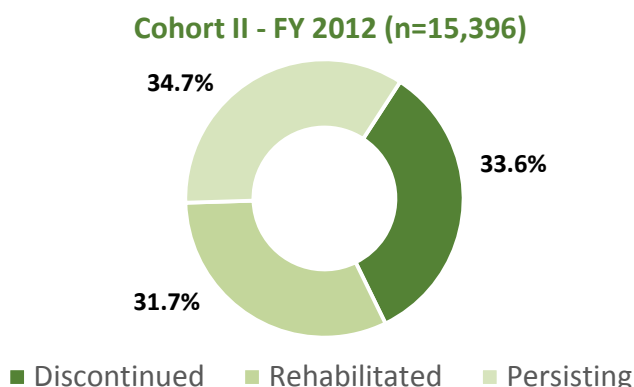
Successful completion of the program takes time, because the vast majority of participants pursue the Employment through Long-Term Services track to complete education and training programs. As Figure E-3 shows, all three cohorts are at different stages based on the length of time they have been in the program.

Figure E-3. Percentage of Participants who are Persisting, Rehabilitated, or Discontinued in FY 2016, by Cohort



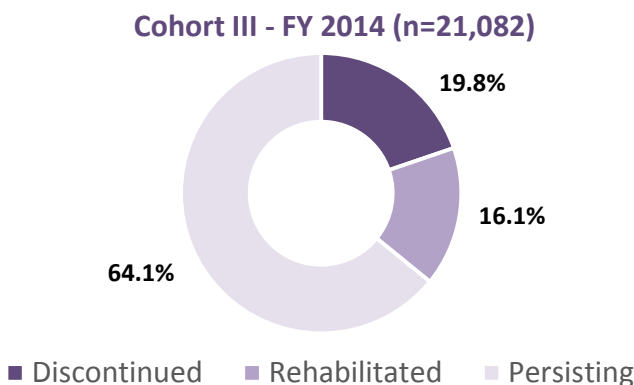
Within 7 years of beginning the VR&E program:

- 37% of Cohort I members have achieved rehabilitation.
- 19% are still persisting in the steps of their rehabilitation plans.
- 44% have discontinued from the program.



Within 5 years of beginning the VR&E program:

- 32% of Cohort II members have achieved rehabilitation.
- 35% are still persisting in the steps of their rehabilitation plans.
- 33% have discontinued from the program.



The majority (64%) of Cohort III members are still persisting in the VR&E program within 3 years of beginning services. 20% of Veterans have discontinued from the program and 16% are rehabilitated.

Source: Administrative Data, FY 2016

Additional findings regarding rehabilitations and discontinuations among the cohorts include:

- Most Veterans pursuing an Independent Living plan achieve rehabilitation within 2 or 3 years of entering the program.
- At year 3, 36 percent of Cohort III members have exited the program compared to Cohort 1 (27 percent) and Cohort II (30 percent).
- At year 5, Cohort II members have seen more successful outcomes (32 percent of Veterans have rehabilitated and 34 percent have discontinued) than Cohort I (28 percent and 25 percent respectively).
- Comparisons of cohorts for the same time period of program participation reveal that participants exit the program at similar rates. Members persisting in the program were enrolled in an institute of high learning in the past 12 months at a much higher rate than those who were either rehabilitated or discontinued.

The rates of program exit by year have increased for Cohorts II and III when compared with Cohort I.

## Veteran Class Success and Persistence Metrics

VR&E implemented new program performance measures in FY 2015 that place a greater focus on Veteran outcomes and their accomplishments. These new measures of Veterans' success are driven by positive outcomes and active participation. Positive outcomes include Employment and Independent Living rehabilitation; rehabilitation for further education; and maximum rehabilitation gains, as either employed or employable. These new metrics effectively measure Veterans' outcomes at every stage of their progression through the program and more accurately account for Veterans' multi-year participation in the VR&E program.

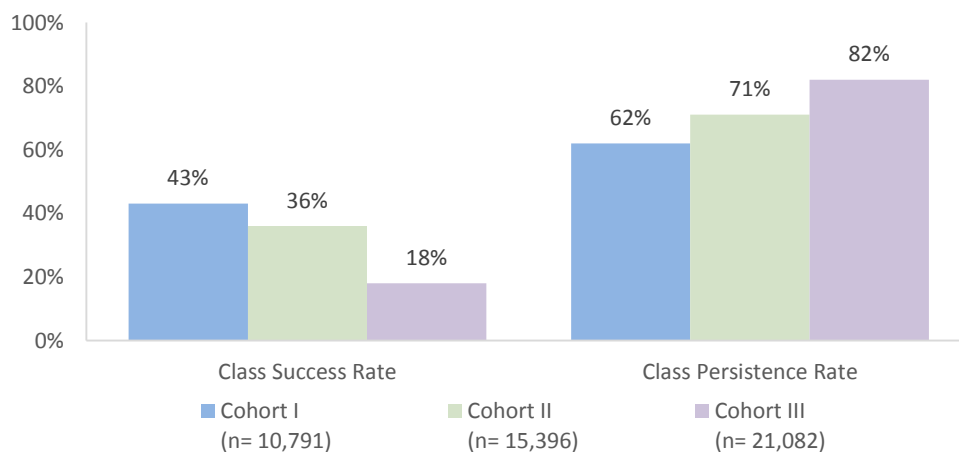
The new model of Veteran success includes two specific measures as described below:

**Class Success Rate:** Percentage of Veterans after 6 years who obtain a positive outcome measured against all Veterans in their year group (class).

**Class Persistence Rate:** Percentage of Veterans after 6 years who obtain a positive outcome and the number of Veterans persisting in their enrollment, measured against all Veterans in their year group (class).

Figure E-4 shows the current Class Success and Persistence Rates for all three cohorts. The FY 2016 performance target for the Class Success Rate is 60 percent and 70 percent for the Class Persistence Rate. To compare Cohorts, VR&E calculates an overall score, which is based on the current class at its six-year participation mark (The FY 2011 class evaluated for FY 2016). The FY 2011 class has an overall Class Success Rate of 47 percent and a Class Persistence Rate of 62 percent. The Class Success Rate for Cohort I may be lower than expected due to re-entries into the program. Class Success Rates for Cohort II (36 percent) and Cohort III (18 percent) cannot be evaluated against the performance target as the majority of cohort members are still persisting in the program and have not had sufficient time to complete their rehabilitation goals. Class Persistence Rates are currently in line with the expectations of VR&E with Cohort I being the only group below the target (62 percent versus 70 percent).

**Figure E-4. Class Success and Persistence Rates by Cohort**

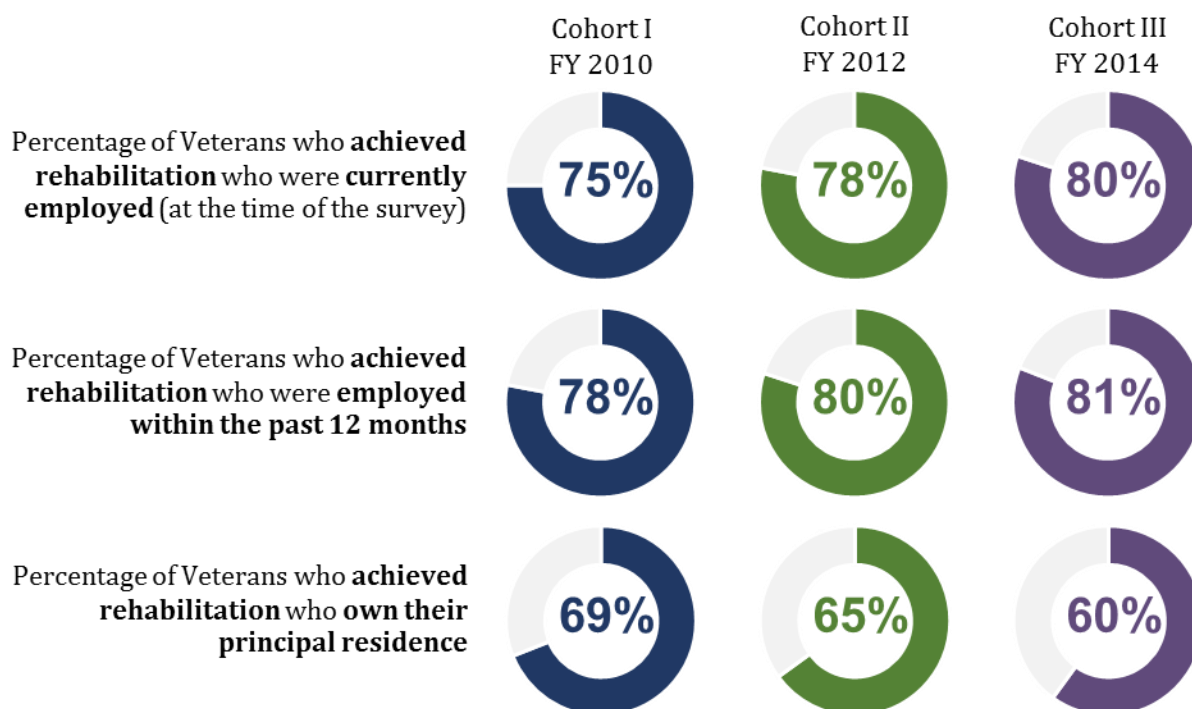


Source: Administrative Data, FY 2016

## Employment and Standard of Living Outcomes

The primary focus of the VR&E Longitudinal Study is on the long-term employment and standard of living outcomes for VR&E participants after they exit the program. Therefore, analyses of employment and standard of living outcomes focus on Veterans who have exited the program, either by successfully achieving rehabilitation or voluntarily discontinuing services before completing their rehabilitation plans.

### Rehabilitated Veterans have High Levels of Employment and Homeownership



Additional outcome-related findings from the study include:

- The rate of homeownership for rehabilitated Veterans in Cohort I (69 percent) and Cohort II (65 percent) is higher than homeownership for the general United States population (63.6 percent).<sup>1</sup> Cohort III has the lowest homeownership rate (60 percent) among the three cohorts.
- More than 90 percent of Veterans who have achieved rehabilitation from an employment plan were employed in the past year for all three Cohorts. Less than half of Veterans in Cohorts I and II who discontinued from an employment plan were employed. The number was slightly higher for discontinued members of Cohort III.

<sup>1</sup> U.S. Census Bureau. Quarterly Residential Vacancies and Homeownership, First Quarter 2017. Table 4SA. Accessed June 13, 2017. <https://www.census.gov/housing/hvs/files/currenthvspress.pdf>

- Veterans who have achieved rehabilitation reported higher annual income amounts than discontinued participants – at least \$15,000 higher for individual income and at least \$24,000 higher for household income.
- Cohort I members have the highest median annual household income (\$68,000) followed by Cohort II (\$66,000) and Cohort III (\$60,000). For median annual individual income, Cohort II (\$54,000) out earns Cohort I (\$52,000) and Cohort III (\$46,000).

Additional findings for the study, as of the end of FY 2016, are highlighted in Table E-1. It is important to note that the FY 2010 and FY 2012 cohorts have had more time to complete training and to enhance their economic opportunities compared to the FY 2014 cohort. The most substantive finding of the study to date is that regardless of the length of time since they began their VR&E program of services, Veterans who have achieved rehabilitation have substantially better employment and standard of living outcomes than those who discontinued services. Rehabilitation remains one of the most dominant variables driving positive financial outcomes (current employment rate, number of months worked, annual earnings, and annual individual and household income) compared to those Veterans who were discontinued.

**Table E-1. Summary of Outcomes for VR&E Participants, by Cohort, as of end of FY 2016**

<b>Current Observation</b>	<b>Cohort I (FY 2010)</b>	<b>Cohort II (FY 2012)</b>	<b>Cohort III (FY 2014)</b>
Percentage of Veterans persisting in the VR&E program	19%	35%	64%
Percentage of Veterans who achieved rehabilitation from the VR&E program	37%	31%	16%
Percentage of discontinued Veterans who were currently employed (at the time of the survey)	33%	38%	38%
Percentage of discontinued Veterans who were employed within the past 12 months	39%	41%	48%
Average post rehabilitation earnings (during the past 12 months) <sup>1</sup>	\$48K	\$46K	\$43K
Average post discontinued earnings (during the past 12 months) <sup>1</sup>	\$29K	\$31K	\$30K
Percentage of Veterans with moderate or high program satisfaction	89%	88%	89%

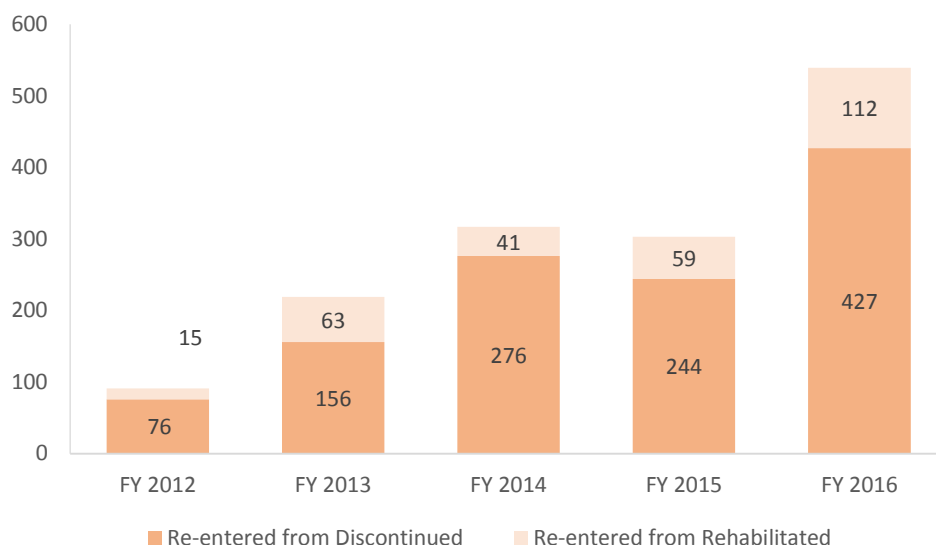
<sup>1</sup> Average earnings reported in the table are based on conditional median earnings, which excludes those with zero earnings. Hence, the conditional median provides an estimate of the average amount of annual earnings among Veterans who reported working.

Source: Administrative Data and VR&E Survey Data, FY 2016

## Program Re-entries

Veterans can re-enter the VR&E program due to changes in their disability status or life circumstances. Re-entries can occur from either a rehabilitated or discontinued status. As time increases, more Veterans from all three cohorts are re-entering the program. Figure E-5 shows that roughly 37 percent of all re-entries occurred in FY 2016 when combining all three cohorts. Most of these Veterans are still persisting in the program at this time. As the study continues, individuals will be tracked to see if re-entering the program leads to more positive outcomes.

**Figure E-5. Number of VR&E Participants who Re-entered the Program from a Discontinued or Rehabilitated Status (all Cohorts Combined)**



Note: In FY 2011, eight participants Re-entered from Discontinued status and two Re-entered from Rehabilitated status.

Source: Administrative Data

The demographic profile of Veterans in the Longitudinal Study who re-enter the VR&E program are somewhat different from the overall cohort population of this report. In general, when compared to those who never re-entered the program, Veterans who re-enter the program:

- Have a higher combined disability rating (69 percent versus 64 percent), suggesting that disability conditions have worsened over time, thus impacting ability to remain employed;
- Are more likely to have a SEH (81 percent versus 75 percent); and
- Have a slightly higher probability of their primary diagnosis being PTSD (32 percent versus 29 percent).



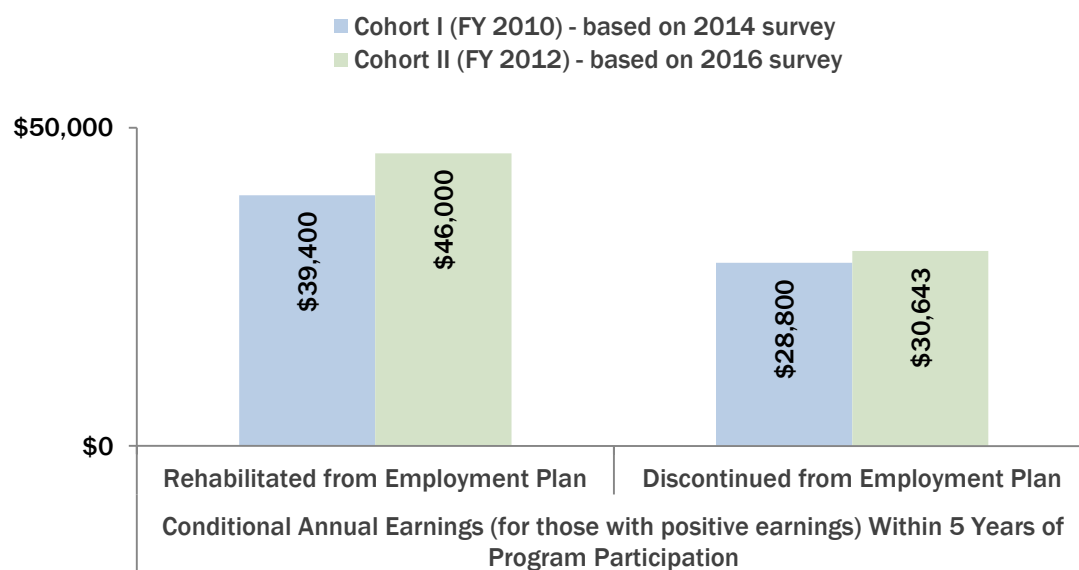
## Cohort Comparisons

For the FY 2016 report, comparisons can be made between cohorts at two separate time periods. First, Cohorts I and II can be compared at the 5-year mark (FY 2014 and FY 2016 respectively). Next, Cohorts I, II, and III can be compared at the 3-year mark (FY 2012, FY 2014, and FY 2016 respectively). In general, Veterans enrolled in an employment or independent living track rehabilitate and discontinue from the program at similar rates for all cohorts. At the 3-year mark, Cohort III shows slightly higher percentages of Veterans discontinuing as well as rehabilitating from an independent living plan. Only 17 percent of Cohort III Veterans are still persisting at the 3-year mark compared to 24 percent for Cohort I and 25 percent for Cohort II. The same trend occurs for Veterans in an employment track. Over 30 percent of Cohort III Veterans in an employment track have either discontinued or rehabilitated. Meanwhile, at the 3-year mark, only 22 percent of Cohort I and 26 percent of Cohort II had either rehabilitated or discontinued.

Cohort III has slightly higher numbers of Veterans that have either rehabilitated or discontinued from the program at the 3-year mark when compared to Cohorts I and II.

Veterans in Cohort I and Cohort II who have discontinued from an employment plan have similar median annual earnings within five years. Figure E-6 shows that Veterans in Cohort II who have rehabilitated from an employment plan earn more than Cohort I. The difference in earnings outpaces inflation for the two-year period from 2014 to 2016.

Figure E-6. **Conditional Median Earnings from Employment (for those with positive earnings) Within 5 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**

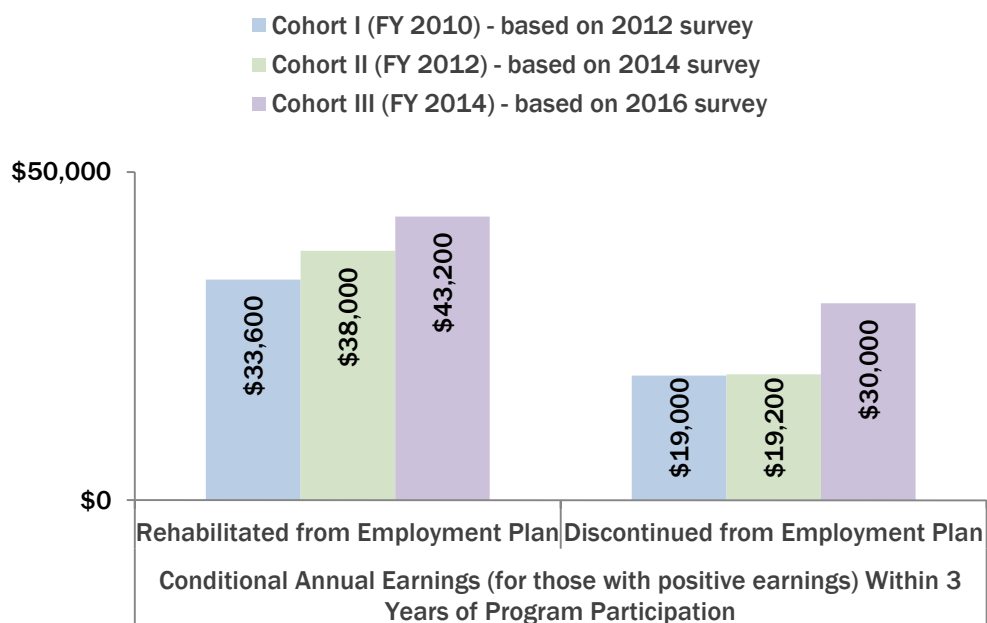


Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Earnings are defined as the amount earned, before taxes and other deductions, in the past 12 months from all jobs or businesses.

Source: VR&E FY 2016 Survey Data

Figure E-7 compares, for employed Veterans, median annual earnings three years after beginning VR&E services. The earnings of Veterans from Cohort III who discontinued from an employment plan are roughly 60 percent higher than their discontinued counterparts from Cohort I and Cohort II three years after initial enrollment. The higher earnings among members of Cohort III, for both the rehabilitated and discontinued participants, well outpaces the rate of inflation over the period.<sup>2</sup>

**Figure E-7. Conditional Median Earnings from Employment (for those with positive earnings) Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**



Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Earnings are defined as the amount earned, before taxes and other deductions, in the past 12 months from all jobs or businesses.

Source: VR&E FY 2016 Survey Data

The most substantive finding of the Longitudinal Study to date is that Veterans who achieve rehabilitation have substantially better employment and standard of living outcomes than those who discontinued services (regardless of the length of time since they began their VR&E program of services). Successful rehabilitation remains one of the most dominant variables driving positive financial outcomes (employment rate, months worked, annual earnings, and annual individual and household income) compared to those Veterans who were discontinued.

<sup>2</sup> [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm)

# 1. OVERVIEW OF THE VOCATIONAL REHABILITATION AND EMPLOYMENT PROGRAM

The mission of the Department of Veterans Affairs (VA) Veterans Benefits Administration (VBA), in partnership with the Veterans Health Administration (VHA) and the National Cemetery Administration (NCA) is to provide benefits and services to Veterans and their families in a responsive, timely, and compassionate manner in recognition of their service to the Nation. The Vocational Rehabilitation and Employment (VR&E) program is one of the benefits VBA provides to those who have served our country in uniform. It is authorized by Congress under Chapter 31 of Title 38, United States Code.

VR&E provides comprehensive services to include vocational assessment, rehabilitation planning, and employment services. For Veterans with service-connected disabilities so severe that they cannot immediately consider work, the VR&E program offers services to improve their ability to live as independently as possible in their families and communities.

The VR&E program assists eligible Veterans with service-connected disabilities and employment barriers to prepare for, obtain, and maintain suitable employment.

VR&E continues to develop and expand methods to assist Servicemembers and Veterans in obtaining and maintaining suitable employment, with a focus on outreach and Servicemembers' early entry into VR&E services during transition from active duty. Included in these outreach efforts are the VetSuccess on Campus (VSOC) and the Integrated Disability Evaluation System (IDES) programs. In addition, VR&E expanded services to Servicemembers and Veterans through the implementation of the VOW to Hire Heroes Act of 2011, Public Law 112-56.

One of VR&E's outreach efforts is Education and Career Counseling, also known as the Chapter 36 program. Under Chapter 36 of Title 38, U.S.C., VR&E has worked to increase access to program services for Veterans in VA education programs, including those Veterans receiving benefits under the Post-9/11 GI Bill. Chapter 36 benefits also provide Educational and Vocational Counseling assessments and career counseling to Servicemembers transitioning from the military to civilian life. These services are available to Servicemembers at six months prior to separation and to Veterans for one year after separation from the military.

VR&E also provides outreach and transition services through the VSOC program to the general Veteran population during their transition from military to college life and, ultimately, to their entry into suitable employment. In the VSOC program, a Vocational Rehabilitation Counselor (VRC) is assigned to participating campuses to provide a wide range of services to Veterans and beneficiaries, including:

- General benefits assistance;

- Career counseling, including vocational testing and academic and readjustment counseling services; and
- Assistance in overcoming barriers to colleges' retention of Veterans and Veterans' completion of degree programs.

VSOC counselors provide eligible beneficiaries support and assistance to achieve their educational and employment goals. VSOC currently has a presence at 94 college campuses throughout the United States, which includes public and private institutions and community colleges.

Similarly, the IDES initiative places VRCs at military installations throughout the country to assist select Servicemembers transitioning from active duty. The IDES initiative derives from the Wounded Warrior Act, Title XVI of the National Defense Authorization Act (NDAA) for FY 2008 (Public Law 110-181), section 1631(b), as extended by Public Law 113-291 on December 19, 2014, which authorizes automatic eligibility and entitlement to the VR&E program to severely ill or injured Servicemembers. Through this initiative, VR&E provides onsite outreach and other services to Servicemembers as they are transitioning from the military. The range of services VR&E provides under the IDES initiative includes:

- Onsite VRC referral for Servicemembers referred to the Physical Evaluation Board (PEB);
- Comprehensive evaluations;
- Career counseling to identify vocational goals; and
- Rehabilitation planning and services

The early intervention provided by VR&E IDES counselors can significantly reduce uncertainty among Servicemembers during their recovery process, and provides for easier transition into civilian careers.

In 2012, VR&E implemented some of the provisions of Title II of Public Law 112-56. Under section 232 of this law, VA may pay an incentive to employers to hire or train Veterans participating in a VR&E program, even when the Veteran has not completed a training program under Chapter 31. Under Section 231 of the law, authority to provide severely injured active duty military Servicemembers automatic eligibility and entitlement to VR&E services was extended until December 31, 2014. This authority was extended three times:

1. Until December 31, 2015 by Public Law 113-291;
2. Until December 31, 2016 by Section 204 of Public Law 114-58; and
3. Until December 31, 2017 under Sec 204 of Public Law 114-228.

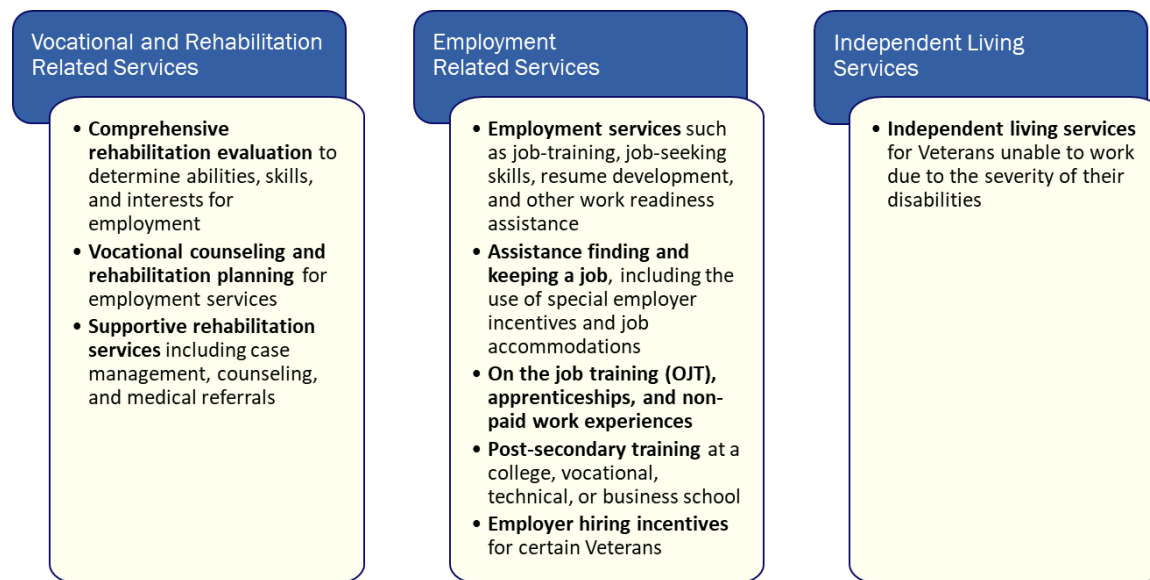
Section 233 of the law allows unemployed Veterans who previously completed a Chapter 31 program and had exhausted state unemployment benefits to receive an additional 12 months of vocational rehabilitation services. However, this entitlement for additional benefits expired in 2014, and most eligible Veterans have completed the additional 12 months of services.

## 1.A. Services Provided by the VR&E Program

VR&E administers the following services to eligible participants in accordance with the following chapters of Title 38, U.S.C.:

**Chapter 31.** The Chapter 31 program assists Veterans with service-connected disabilities and an employment barrier to prepare for, obtain, and maintain suitable jobs. For Veterans with severe service-connected disabilities who cannot immediately consider work, the Chapter 31 program offers services to improve their ability to live as independently as possible through the Independent Living track (see Figure 1A-1). The Longitudinal Study cohorts described in this report are comprised of individuals who applied for the Chapter 31 program, were found entitled, and began a plan of services during FY 2010, FY 2012, or FY 2014.

Figure 1A-1. Services Available under Chapter 31



Source: [http://www.benefits.va.gov/vocrehab/eligibility\\_and\\_entitlement.asp](http://www.benefits.va.gov/vocrehab/eligibility_and_entitlement.asp)

**Chapter 36.** VR&E provides a wide range of educational and vocational counseling services to Servicemembers separating from active duty, as well as Veterans and dependents who are eligible for one of VA's educational benefit programs. These services are designed to help an individual choose a vocational direction and determine the course needed to achieve the chosen goal.

Individuals who are eligible for educational and vocational counseling include transitioning Servicemembers who are within six months of discharge from active duty, or within one year following discharge from active duty. The discharge must be under conditions other than dishonorable. Individuals eligible for or currently using VA education programs such as the Post-9/11 GI Bill are also eligible for educational and vocational counseling from VR&E. Assistance may include interest and aptitude testing; vocational exploration; setting goals; locating the right type of training program; VA benefits coaching; adjustment counseling; and exploring educational or training facilities which might be

utilized to achieve a vocational goal. Chapter 36 counseling participants are not represented in the Longitudinal Study.

**Chapter 18.** VA provides monetary allowances, vocational training and rehabilitation, and VA-financed health care benefits to certain Korea and Vietnam Veterans' birth children who have been diagnosed with spina bifida. For the purpose of this program, spina bifida is defined as all forms or manifestations of spina bifida (except spina bifida occulta). Effective October 10, 2008, Public Law 110-387, Section 408, made a change to 38 U.S.C. § 1803(a). As a result of this change, medical services and supplies for spina bifida beneficiaries are no longer limited to care for the spina bifida condition. This program now covers comprehensive health care considered medically necessary and appropriate.

Vocational training and rehabilitation services are available to Chapter 18 participants if it is determined reasonably feasible for the eligible child to achieve a vocational goal. Chapter 18 participants are not represented in the Longitudinal Study.

**Chapter 35.** Under Chapter 35, VR&E can provide a wide range of educational and vocational counseling services to the spouse, son, or daughter of: 1) a Veteran who died or is permanently and totally disabled as a result of a service-connected disability, 2) a Veteran who died from any cause while rated permanently and totally disabled as a result of a service-connected disability, 3) a Servicemember missing in action or captured in the line of duty by a hostile force, 4) a Servicemember forcibly detained or interned in line of duty by a foreign government or power, or 5) a Servicemember who is hospitalized or receiving outpatient treatment, has a service-connected permanent and total disability, and is likely to be discharged for that disability. These services are designed to help an individual choose a vocational direction and determine the course needed to achieve the chosen goal. Assistance may include interest and aptitude testing; occupational exploration; setting occupational goals; locating the right type of training program and exploring educational or training facilities which might be utilized to achieve an occupational goal. Chapter 35 participants are not represented in the Longitudinal Study.

VR&E administers these four benefits (Chapters 31, 18, 35, and 36) through a decentralized service-delivery network comprised of 58 VBA regional offices, 142 out-based offices, 71 IDES sites, and 94 VSOC locations. As of the end of FY 2016, this network is staffed with a VR&E workforce of 1,335 staff, including VRCs, Employment Coordinators, support staff, and managers. VR&E also has national service contracts which supplement the delivery of services provided by VRCs and employment staff. Figure 1A-2 displays the key features that distinguish the VR&E service-delivery model from the service-delivery strategy of VBA's other lines of business.

Figure 1A-2. Three Key Features of the VR&E Service-Delivery Model



#### Multi-Year Cycle

The cycle of an active VR&E case may extend up to and beyond six years. This is necessary to provide adequate training for Veterans so that they can obtain employment that accommodates their disabilities and provides a career foundation that is appropriate.



#### Face-to-face Interactions<sup>1</sup>

VR&E requires regular face-to-face interactions with Veterans to deliver benefits and services, in contrast to VBA's other lines of business that focus primarily on claims processing.



#### Largest Out-Based Network within VBA

VR&E has the largest out-based network of any VBA business line with nearly 350 locations nationwide.

Source: EconSys Study Team

<sup>1</sup> M28R, *Vocational Rehabilitation and Employment Service Manual, Part V, Section A, Chapter 2*

VR&E's Chapter 31 workload is predominately driven by three factors: (1) the number of Veterans applying for rehabilitation benefits and services (under Chapter 31, Title 38); (2) the number of Veterans who enter into the development and implementation of a rehabilitation plan; (3) the associated growth of disability claims consistent with the ongoing reduction of the claims backlog; (4) changes to total volume of military separations due to military end-strength policy; and (5) frequency/severity of service related injuries/illnesses. Once a Veteran or Servicemember applies and is determined eligible for services, the Veteran meets with a VRC to complete a comprehensive vocational assessment. The VRC will then make an entitlement determination. If the Veteran or Servicemember is not entitled, the counselor will assist with any necessary referrals for other services such as referrals to state vocational rehabilitation programs, local employment agencies, or other local or state training programs. Further information on eligibility and entitlement determination is presented in Section 1C, The VR&E Process.

After the Veteran or Servicemember is determined entitled for vocational rehabilitation services, the Veteran continues with further assessment and evaluation activities, as necessary. Based upon the results of the comprehensive vocational assessment and any additional evaluations, the Veteran and counselor develop an individualized rehabilitation plan. The plan centers on one or more of the five tracks of services customized to meet the Veterans' rehabilitation needs. The five tracks of services are:

- Re-employment (Track 1);
- Rapid Access to Employment (Track 2);
- Self-employment (Track 3);
- Employment through Long-Term Services (Track 4); and
- Independent Living Services (Track 5).

The five tracks of services are described in more detail in Figure 1A-3.



Figure 1A-3. Five VR&E Tracks of Services

<p><b>Track 1. Re-employment</b></p> <p>For those individuals separating from active duty, National Guard, or Reserves, with service-connected disabilities who wish to return to work with their previous employers upon returning from active duty</p>	<ul style="list-style-type: none"> <li>• Services may include accommodating and/or modifying the workplace in order to make it more accessible</li> <li>• VA counselors and medical staff coordinate with the employer to provide any assistance needed to return to work</li> <li>• VA provides reemployment rights advice, work adjustment services, adaptive equipment, and specialized consultations necessary for successful return to work</li> </ul>
<p><b>Track 2. Rapid Access to Employment</b></p> <p>For Veterans who are ready to seek employment soon after separation and already have the necessary job skills to be competitive in the job market in an appropriate occupation</p>	<ul style="list-style-type: none"> <li>• Services may include career-readiness preparation, resume development, career-search assistance, development of employment resources, job accommodations, short-term certificate training, and post-employment follow-up</li> <li>• VA provides expert career-placement assistance, referrals, and other specialized assistance</li> </ul>
<p><b>Track 3. Self-Employment</b></p> <p>For Veterans who have job skills to start their own business, have limited access to more traditional employment, need flexible work schedules, or a more accommodating work environment due to a disability or other life circumstances</p>	<ul style="list-style-type: none"> <li>• Category I: VA may provide all Category II services listed below, plus more extensive training in the operation of a small business and some business start-up costs such as supplies and essential equipment</li> <li>• Category II: Services may include training in the occupational field; incidental training in the operation of a small business; license or other fees required for employment; and personal tools and supplies that are required of all individuals to begin employment in the approved occupational field</li> </ul>
<p><b>Track 4. Employment through Long-Term Services</b></p> <p>For Veterans who need job skills to gain access to employment</p>	<ul style="list-style-type: none"> <li>• Training may include college or certificate programs, non-college vocational training, on-the-job training, apprenticeships, and/or internships</li> <li>• Services may include long-term case management, support, and advocacy</li> <li>• VA will provide the cost of all tuition, books, fees, equipment, and provide a monthly subsistence allowance during training</li> </ul>
<p><b>Track 5. Independent Living Services</b></p> <p>For Veterans who may not be able to go to work immediately due to the severity of their disability and who need assistance to be more independently involved in their families and communities</p>	<ul style="list-style-type: none"> <li>• Services may include help obtaining a volunteer position, connecting with community-based support services, providing assistive devices, increased access within the home or community, and help in becoming more independent in activities of daily living</li> <li>• VA will provide the services or equipment needed to reach independent living goals</li> </ul>

Source: Adapted from <http://www.benefits.va.gov/benefits/factsheets/serviceconnected/5tracks.pdf>



Vocational assessment and evaluation activities help Veterans and their counselors develop a vocational rehabilitation plan. A vocational rehabilitation plan lists the services that will be provided and identifies the objectives Veterans must pursue to achieve their rehabilitation goals. Every rehabilitation plan is different as the identified objectives and services provided are based on each individual Veteran's needs. The rehabilitation plan can be re-developed based on new needs or circumstances identified by the Veteran and counselor. The Veteran and counselor continue to meet for supportive services throughout all steps of the rehabilitation plan. Monitoring and support continue as long as the Veteran is a participant of the VR&E program.

Some individuals in the VR&E program have disabilities so severe that the achievement of a vocational goal is not currently feasible or cannot be determined without further evaluation. These individuals may have unstable medical conditions or other barriers which prevent the current achievement of a vocational goal. If the feasibility of the achievement of a vocational goal remains uncertain in coordination with a VRC, the Veteran may enter into an Extended Evaluation plan. The purpose of Extended Evaluation is to provide evaluative and rehabilitative services designed to determine whether achievement of a vocational goal is currently reasonably feasible. To participate in an Extended Evaluation plan, an individual must have a serious employment handicap. Veterans in Extended Evaluation may exit the VR&E program because the achievement of a suitable vocational goal is not currently reasonably feasible and they have no identifiable independent living needs. As their situations change, these individuals may later re-apply to the VR&E program. The Veteran then participates in a new evaluation, as their circumstances may have changed, and may develop a suitable vocational goal with the support of a VRC, or they may have unmet independent living needs.

As Veterans near the completion of the objectives of their rehabilitation plans, Veterans meet with their counselors to assess their readiness to enter employment, develop a job ready plan of services, or to update their rehabilitation plan. VRCs and Employment Coordinators (ECs) then assist Veterans with obtaining employment, ensuring that the Veteran has adjusted well and employment is stable. Once stable employment is reached, follow-up services are provided for at least 60 days before the case is closed, with rehabilitation achieved.

## 1.B. Evolution of Vocational Rehabilitation for Veterans

Vocational rehabilitation began as a government service to war-injured Veterans during the World War I era. In 1917, the War Risk Insurance Act of 1914 was amended to provide rehabilitation and vocational training for Veterans with dismemberment injuries, injuries to their sight or hearing, and other injuries resulting in permanent disability.

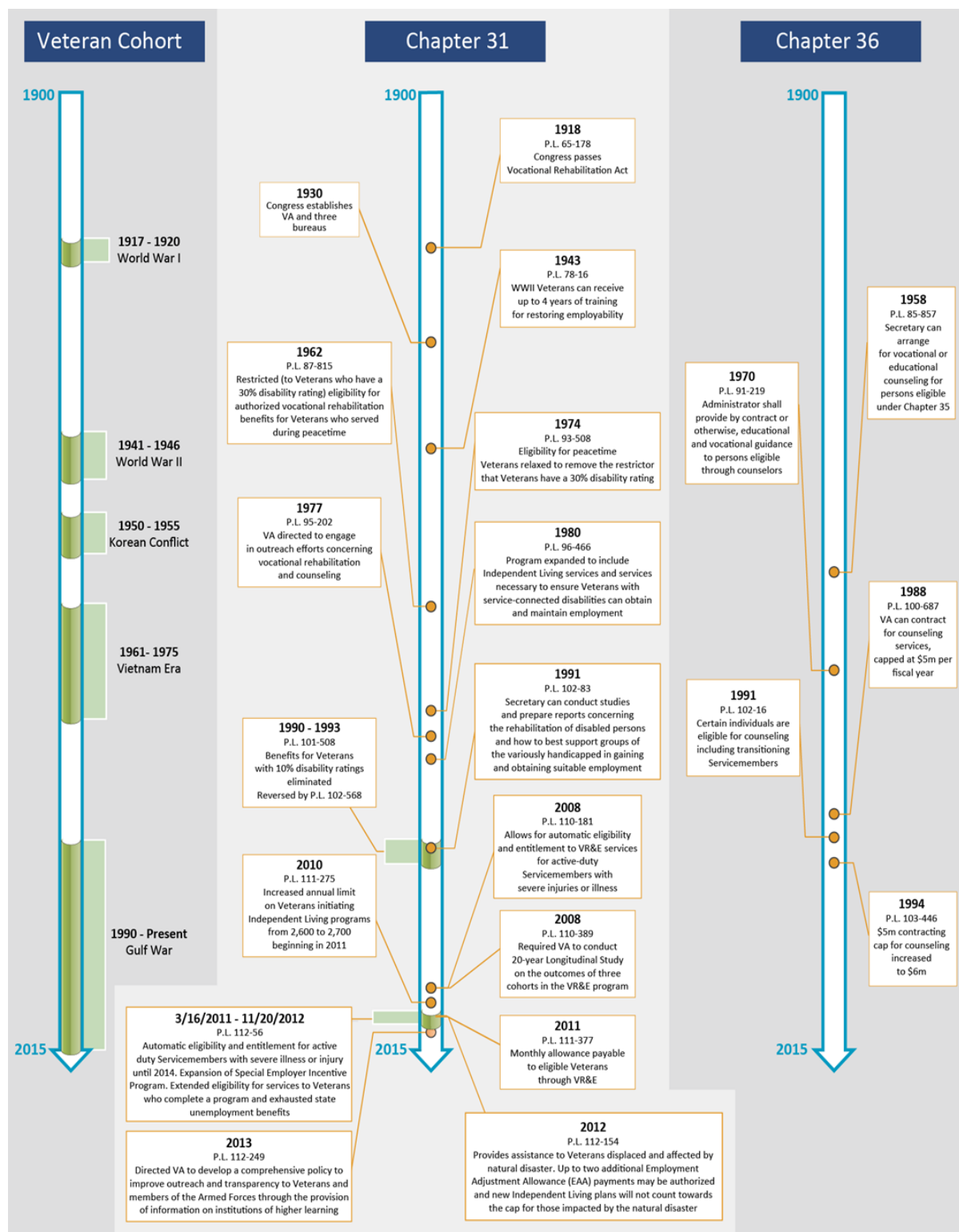
The legislative history noted in the highlighted facts in Figure 1B-1 provides context for understanding the nature and extent of changes that have been made over the years to the VR&E program. Since the original legislation that established the VR&E program, numerous pieces of legislation have passed into law that have shaped the eligibility rules and benefits into the modern program it is today.

The VR&E program has enacted substantive changes since inception to be more reactive to Veteran needs, modernize benefits, and reshape eligibility rules.

Section 334 of the Veterans' Benefits Improvement Act of 2008 (Public Law 110-389) requires VA to conduct a longitudinal study of Veterans who apply for VR&E services and begin rehabilitation plans in FY 2010, FY 2012, and FY 2014. It is also important to note that recent legislative changes concerning the VR&E program have passed into law within the past few years and could impact the findings of the Congressionally-mandated longitudinal study. Recent legislative changes to the program include:

- Automatic entitlement of VR&E services for active duty Servicemembers with severe injuries or illnesses (extended through the end of 2017);
- Increasing the annual limit on the number of Veterans initiating plans for Independent Living services from 2,600 to 2,700 (beginning in 2011); and
- The provision of monthly subsistence allowances similar to those paid under the Post-9/11 GI Bill for those VR&E program participants who would also qualify for Post-9/11 educational benefits (beginning in August 2011).

Figure 1B-1. Chronological History of Legislative Changes to the VR&E Program



Source: Department of Veterans Affairs, VR&E MITRE Study 2015

## 1.C. The VR&E Process

The VR&E process begins when a Servicemember or Veteran completes an application (VA Form 28-1900) for VA Vocational Rehabilitation benefits. The application can be filled out either electronically (as

Veterans with a service-connected disability or memorandum rating, and a discharge other than dishonorable are eligible for the VR&E program.

In order to be entitled for VR&E services, a Veteran must have an employment handicap.

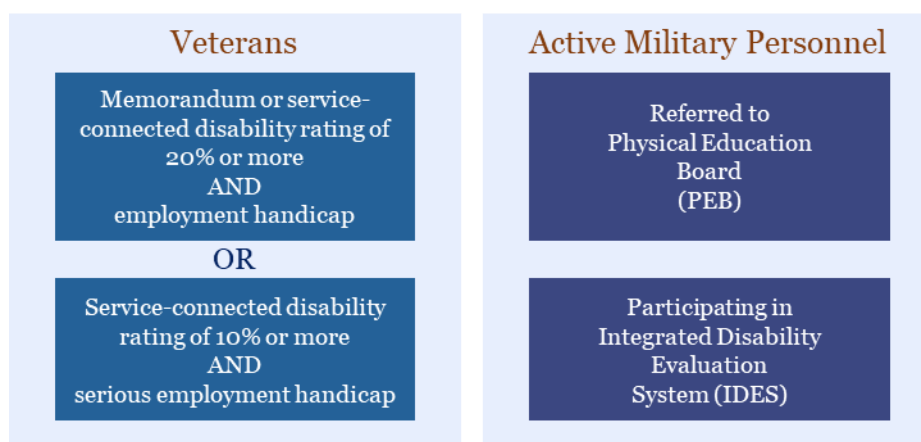
of September 2015, the application is automated through eBenefits) or hard copy. Once VA receives the application and basic eligibility is verified, a counselor meets with the Veteran to complete a vocational, medical, and academic history, including information necessary to determine if the Veteran is entitled to services.

The basic entitlement criteria require that a Veteran has received or will receive an honorable or other than dishonorable discharge, has a service-connected disability,

and is determined by the VRC to have an employment handicap in substantial part due to that disability. An employment handicap is an impairment associated with the Veteran's ability to prepare for, obtain, or retain suitable employment consistent with his or her abilities, aptitudes, and interests. As shown in Figure 1C-1, Servicemembers and Veterans are determined to be entitled to the program if they have either a memorandum rating or a service-connected disability rating of 20% or more and an employment handicap. A memorandum rating is provided when a Veteran has not yet completed a disability compensation evaluation, but is eligible to apply for VR&E benefits because there is sufficient information to determine that a disability rating of 20% or more likely will be granted. In addition, active duty military personnel with a severe injury or illness are automatically entitled to Chapter 31 benefits, under Public Law 110-181, following submission of an application and meeting with a counselor.

Veterans are also entitled to VR&E benefits if they have a service-connected disability rating of 10% and the VRC determines that they have a serious employment handicap. A serious employment handicap is defined as a significant impairment of an individual's ability to prepare for, obtain or retain employment consistent with his or her abilities, aptitudes, and interests.

Figure 1C-1. Entitlement Criteria for the VR&E Program



Source: Adapted from [http://www.benefits.va.gov/vocrehab/eligibility\\_and\\_entitlement.asp](http://www.benefits.va.gov/vocrehab/eligibility_and_entitlement.asp)

The law generally provides for a 12-year period of basic eligibility in which VR&E services may be used. Veterans whose 12-year period of basic eligibility has passed can still be entitled to VR&E services if the counselor determines that they have a serious employment handicap.

Once an entitlement determination is made after a comprehensive vocational assessment, the counselor and Veteran work together to determine if testing or additional assessment is needed. Testing completed during the initial evaluation may include aptitude and interest testing, educational achievement testing, psychological and physical assessments of functioning (through collaboration with VHA), and other assessments, such as a work hardening program, as necessary. The counselor and the Veteran also review labor market information to ensure that the Veteran is prepared for, or is pursuing training for, an in-demand occupational field compatible with the Veterans' identified interests, aptitudes, abilities and which does not aggravate a service-connected disability.

When the assessments are completed, the counselor and Veteran develop a rehabilitation plan. Services identified in the rehabilitation plan are designed to meet the unique needs of each Veteran and will vary from Veteran to Veteran. Training services include tuition, fees, books, supplies, and a subsistence allowance. Veterans may also receive tutoring, adaptive equipment, specialized medical referrals, and other services as needed.

**The individualized rehabilitation plan:**

- Lists the **vocational goal and services** that will be provided,
- Identifies the Veteran's **objectives**, and
- Identifies **milestones of progress** and estimates timeframes for their completion.

The rehabilitation plan is individualized and may be re-developed as new needs or circumstances are identified by the Veteran and counselor. The counselor and Veteran continue to meet for case management and counseling as rehabilitation services are provided. Case management and support continue as long as the Veteran is a participant of the VR&E program.

As Veterans near completion of their training requirements and become more competitive and marketable in their career fields, their counselors and employment coordinators work with them to ensure that they are job ready, including assisting them with developing employment assistance plans. The employment assistance plan includes services tailored to the Veteran's specific needs, and may include such services as job seeking skills training, resume development, intensive interview preparation, job development, job placement, job accommodation assistance, job coaching, or any other services necessary to ensure that the Veteran can obtain and maintain suitable employment. After a Veteran enters suitable employment, the counselor or employment coordinator will provide follow up assistance for at least 60 days, to ensure that the employment is stable and that the Veteran adjusts well to his or her employment before closing the case, with rehabilitation achieved.

## 1.D. VR&E Program Participants as of FY 2016

Before the VR&E Longitudinal Study and this year's findings are presented, it is important to consider the description of all the individuals currently in the VR&E population. A review of the entire population of Veterans who participated in some manner in the VR&E program during FY 2016 provides context for the findings of the Longitudinal Study. In FY 2016, VR&E had 135,700 Veterans who participated in a rehabilitation plan, including those who began a plan in that year or previous years. Table 1D-1 shows the number of male and female Veterans who participated in the VR&E program for all or part of FY 2016, as well as the number of participating Veterans who had an employment handicap or a serious employment handicap.

Table 1D-1. Veterans who Received VR&E Benefits for all or part of FY 2016

VR&E Program Participants in FY 2016		#	%
Gender	Males	107,662	78.5%
	Females	29,042	21.2%
Serious employment handicap status	Veterans with a serious employment handicap	103,944	75.8%
	Veterans with an employment handicap	33,153	24.2%
Period of service	World War II	31	0.0%
	Korean Conflict	63	0.0%
	Vietnam Era	4,753	3.5%
	Peacetime	14,124	10.3%
	Gulf War Era	111,270	81.2%
	Other	6,697	4.9%
Total Participants <sup>1</sup>		137,097	100.0%

Note: Totals include 393 participants unidentifiable by gender and 159 participants unidentifiable by period of service.

Source: Department of Veterans Affairs, VBA Annual Benefits Report, 2016.

Male Veterans comprised almost four-fifths (78 percent) of the VR&E program in FY 2016, and female Veterans comprised a little over one-fifth (21 percent). The percentage of VR&E participants who are female is consistent with the representation of female Servicemembers and Veterans who have served since the Gulf War era. This is also

Majority of VR&E program participants follow Employment through Long-Term Services track.

consistent with the percent of female Veterans who have participated in the Post 9/11 GI Bill (20 percent).<sup>3</sup> About three-quarters (76 percent) of the Veterans participating in VR&E have a serious employment handicap, which means the significant impairment is associated with the service-connected disability. These Veterans, when participating in the program, may receive additional supportive services, which may include extensions of entitlement, adaptive equipment, independent living services, and/or other assistance.

All Veterans who apply for VR&E services first receive an orientation to the program, and are offered an individualized assessment of their interests, skills, and disability needs. Upon completion of the evaluation process and development of a rehabilitation plan of services, Veterans enter their individualized rehabilitation program to become job ready in their selected vocational choice, or to achieve the maximum ability to live independently in their families and community.

While in Job Ready (JR) status, the Veteran works with a counselor or employment coordinator to obtain a suitable job, adjust to that new job, and once the job is stable, receive follow-up support for a minimum of 60 days. However, Veterans entering an IL plan of services will have to participate in either employment or IL assessments. In certain circumstances, follow-up support may exceed 60 days, in order to meet the needs of a Veteran with a severe disability or to monitor stability of a Veteran. The length of time that Veterans remain in JR status varies according to the Veteran's individual circumstances. During FY 2016, the average number of days that VR&E participants were in JR status was 168.

58%

Percentage of Veterans in the VR&E program that received a subsistence allowance for additional education or training in FY 2016.

<sup>3</sup> Student Veterans of America, National Veteran Education Success Tracker (NVEST) Project, Fact Sheets. Page 3. Accessed June 7, 2017 ([http://nvest.studentveterans.org/wp-content/uploads/2017/02/NVEST\\_Factsheets.pdf](http://nvest.studentveterans.org/wp-content/uploads/2017/02/NVEST_Factsheets.pdf))

VR&E participants who received a subsistence allowance in FY 2016:

**75%**  
pursuing a  
college degree



**14%**  
pursuing a  
graduate degree

Of those Veterans participating in a plan of services, most follow Employment through Long-Term Services track and receive services that include career counseling, case management, employment planning, training, or education, VHA-sponsored medical or dental care, job-placement assistance, and other supportive services.

Veterans may also receive a subsistence allowance. The traditional subsistence allowance is paid each month during training and is based on the rate of attendance (e.g., full-time or part-time), the number of dependents, and the type of training. In accordance with Public Law 111-377, a Veteran participating in the VR&E program and entitled to a Chapter 31 subsistence allowance who is also entitled to assistance under the Chapter 33 Post-9/11 GI Bill can elect to receive subsistence allowance at the Post-9/11 subsistence allowance (P9/11SA) rate in lieu of the traditional Chapter 31 monthly subsistence allowance rate. In most instances, the P9/11SA rate may be higher than the traditional Chapter 31 subsistence allowance rate. Table 1D-2 shows the number of Veterans who received subsistence payments as part of a vocational training program in FY 2016.

**Table 1D-2. Veterans who Received Subsistence as part of a Training Program during FY 2016**

Training Program	#	%
<b>Subtotal – Educational program at an Institution of Higher Learning</b>	<b>72,217</b>	<b>90.71%</b>
Undergraduate school	59,336	74.53%
Graduate school	10,939	13.74%
College, non-degree	1,942	2.44%
<b>Subtotal – Vocational/Apprenticeship, on-the-job training, or other training program</b>	<b>5,489</b>	<b>6.89%</b>
Vocational or technical	3,893	4.89%
Non-paid work experience in government agency	948	1.19%
Paid on-job training	270	0.34%
Farm co-op	132	0.17%
Improvement of rehab potential	131	0.16%
Apprenticeship	85	0.11%
Non-paid on-job training	28	0.04%
High School	2	0.00%
<b>Extended evaluation/Independent living program</b>	<b>1,910</b>	<b>2.40%</b>
<b>Total<sup>1</sup></b>	<b>79,616</b>	<b>100.00%</b>

<sup>1</sup> This number only represents participants during FY 2016 in receipt of a subsistence allowance, a subset of total participants.

Source: Department of Veterans Affairs, VBA Annual Benefits Report, 2016. In FY 2016, 79,616 (58 percent) of the Veterans in VR&E received a subsistence allowance for education or training being pursued while in Employment through Long-Term Services track. About 82 percent (not shown) of Veterans participating in VR&E in FY 2016 had less than a 4-year college degree prior to beginning services. Among those with less than a 4-year degree, about 44 percent (not shown) have taken some college or post-high school courses prior to beginning services.



Hence, it is not surprising to find that of those participants who received a subsistence allowance in FY 2016, three-quarters (~75 percent) received a subsistence allowance for participating in an educational program at an institution of higher learning to pursue an undergraduate degree (see Table 1D-2). Another 14 percent received a subsistence allowance for pursuing a graduate degree, and almost 2.4 percent are taking college courses as part of a non-degree program. The remaining individuals either participated in technical/apprenticeship, on-the-job training, or other training programs (~6 percent), or a program of solely independent living services (2 percent).

Veterans who did not receive subsistence payments during the fiscal year received other forms of rehabilitation services. Veterans who have appropriate training and skills receive job search assistance and job accommodation services to transition them into the workforce. Other non-subsistence services include independent living services, career counseling, medical referrals and non-training evaluation services such as assistive technology evaluations.

In FY 2016, the VR&E program used the appropriations listed in Table 1D-3 to support the vocational rehabilitation of Veterans. The total appropriation of \$1,532,061,000 represents a 9 percent increase over FY 2015.

**Table 1D-3. FY 2016 VR&E Appropriations**

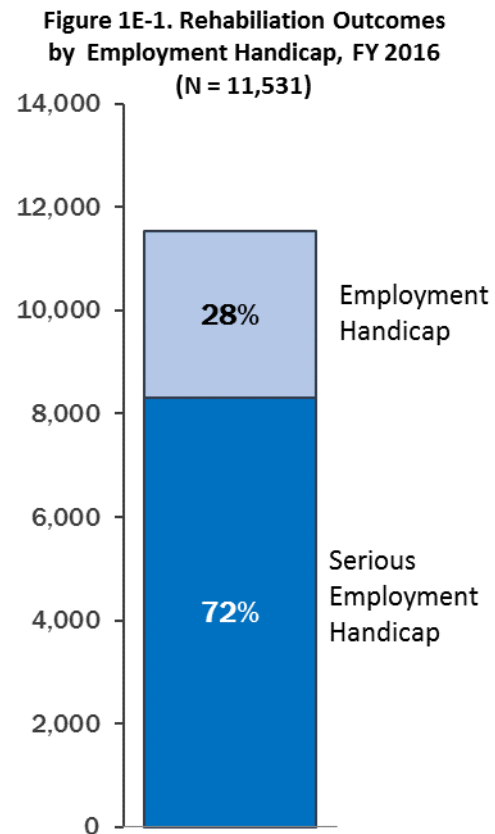
Appropriation		Amount (000's)
<b>General operating expenses</b> (e.g., salaries, rent, other services, travel, etc.)		\$217,379
<b>Readjustment benefits</b>	Subsistence allowance paid to Veterans	\$573,346
	Vocational training paid on behalf of Veterans (e.g., tuition, books, supplies, fees, etc.)	\$741,336
<b>Total</b>		<b>\$1,532,061</b>

*Source: Department of Veterans Affairs, President's Budget Request Fiscal Year 2018.*

## 1.E. VR&E Program Participants with Successful Rehabilitations

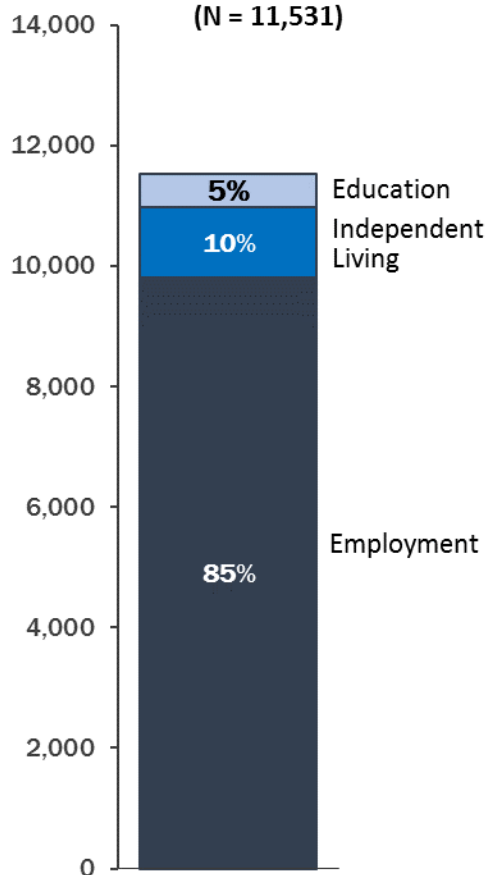
Of the Veterans who participated in the VR&E program in FY 2016, there were 11,531 Veterans who successfully completed their rehabilitation plans at some point during the year. It is important to note that the Veterans who have achieved rehabilitation in FY 2016 entered the program at different points in time.

As shown in Figure 1E-1, Veterans who have a serious employment handicap represent 72 percent of the successfully rehabilitated closures in FY 2016. Eighty-five percent (9,816) of the successful rehabilitation closures in FY 2016 included Veterans who obtained and maintained employment (see Figure 1E-2). Another five percent of the successful closures that occurred in FY 2016 included Veterans who are employable but elected to pursue continuing education instead of immediate suitable employment. The remaining 1,152 (10 percent) rehabilitations were Veterans who received Independent Living services. The Independent Living services assist Veterans with disabilities to develop capacity to live as independently as possible in their homes and communities, as well as increase their potential to return to work. Thus, completing a plan of Independent Living services represents a significant step forward for the Veterans with the most serious impairments, the ones who are not immediately able to return to work.



Source: Department of Veterans Affairs, Veterans Benefits Administration Annual Benefits Report 2016

**Figure 1E-2. Types of Rehabilitation Outcomes, FY 2016**  
(N = 11,531)



Source: Department of Veterans Affairs, Veterans Benefits Administration Annual Benefits Report 2016

After achieving the maximum level of independence as possible, it is expected that Veterans will complete their rehabilitation plans within 2 years, although approved extensions may be provided up to a total of 30 months if needed. For Post-9/11 Veterans, additional extensions may be approved to ensure the most severely injured Veterans are able to achieve successful rehabilitation outcomes.

Of the 10,379 Veterans who successfully completed employment rehabilitation plans, about 96.5 percent (not shown) began full-time employment. The remaining 3.5 percent (not shown) pursued part-time employment, volunteer opportunities, or additional education. More than 80 percent of the Veterans who have achieved rehabilitation and who began full-time employment obtained professional, technical, or managerial jobs in FY 2016 (see Table 1E-1). Another 14 percent began a career in the machine trades (4.5 percent), services (4.3 percent), or clerical (3.7 percent) industries.

As indicated in Table 1E-1, the average annual starting wage among Veterans who successfully completed their rehabilitation plans and began full-time employment in FY 2016 was \$46,208 (see Table 1E-1). Of the 80 percent taking a professional, technical, and managerial position, the average annual wage was

\$49,144 which is above the average for the entire group. For the remaining 20 percent of Veterans who began full-time employment service, clerical, machine trades, or other occupations, the average annual wage ranged from \$31,441 to \$38,295.

To put these salaries in context, a comparison is made between the average annual post-rehabilitation employment wages of Veterans who have achieved rehabilitation to the average annual wage for all

**About 96% of Veterans who achieved rehabilitation from an employment plan began full-time employment in FY 2016.**

**Of those Veterans who began full-time employment, 80% obtained professional, technical, or managerial jobs.**

Americans. In May 2016, the average annual wage of Americans<sup>4</sup> in all occupations was \$49,630. Given that Veterans who have achieved rehabilitation are typically newly trained in their field, it is not unexpected that their average wages immediately following rehabilitation are somewhat lower than the average annual wages of the American working population, which includes individuals who have been working in their occupations for many years.

**Table 1E-1. FY 2016 Career Categories of Veterans who Achieved Rehabilitation**

FY 2016 Career Categories of Veterans who Achieve Rehabilitation	Veterans		Average Annual Wages at Rehabilitation
	#	%	
<b>Professional, Technical, and Managerial</b>	8,045	80.3%	\$49,114
<b>Machine Trades</b>	450	4.5%	\$33,190
<b>Service</b>	434	4.3%	\$31,739
<b>Clerical</b>	373	3.7%	\$36,666
<b>Miscellaneous</b>	320	3.2%	\$36,188
<b>Other (below 2% each category)<sup>1</sup></b>	206	2.1%	\$31,441
<b>Structural/Building Trades</b>	202	2.0%	\$38,295
<b>Total and National Average</b>	<b>10,020<sup>2</sup></b>		<b>\$46,208</b>
<b>Rehabilitations without full-time wages</b>	359 <sup>3</sup>		–
<b>Total</b>	<b>10,379</b>		–

<sup>1</sup> Includes careers in sales; benchwork; agriculture, fishery and forestry; and processing (butcher, meat processor, etc.).

<sup>2</sup> Excludes Veterans in the Independent Living track who have achieved rehabilitation and those Veterans who have achieved rehabilitation from an employment plan but pursued part-time employment, volunteer work, or additional education.

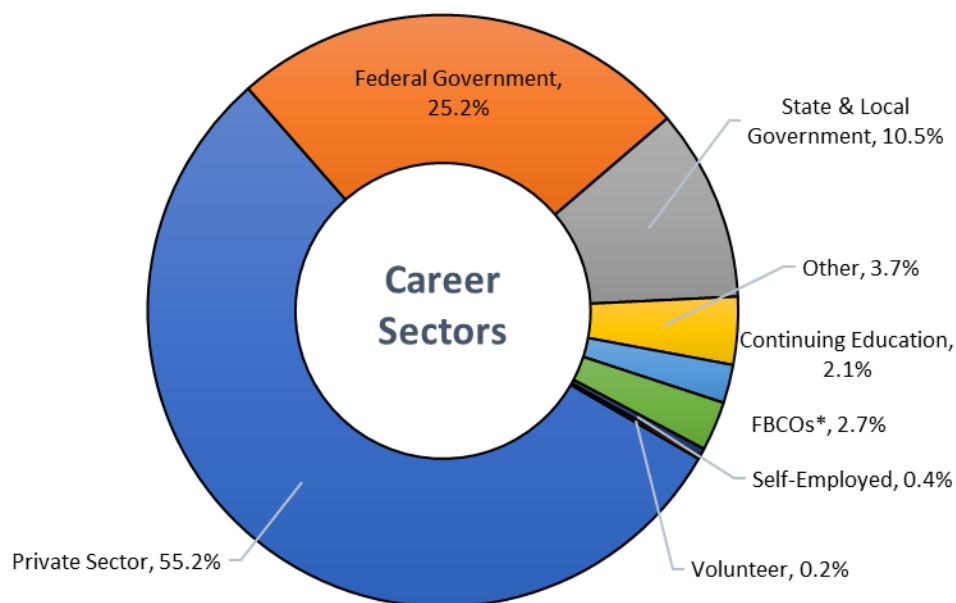
<sup>3</sup> Includes continuing education, part-time employment, volunteer, and unknown.

Source: Department of Veterans Affairs, VR&E Program Management Reports: Career Outcomes by DOT.

<sup>4</sup> [http://www.bls.gov/oes/current/oes\\_nat.htm](http://www.bls.gov/oes/current/oes_nat.htm)

Veterans who successfully completed employment rehabilitation plans in FY 2016 became employed in a wide variety of career sectors (see Figure 1E-3). More than half were employed in the private sector (55 percent) with the next largest sectors being Federal Government (25 percent) and State & Local Government (11 percent). The remaining 9 percent were in other sectors including Faith-Based Community Organizations, Continuing Education, were self-employed, or were in volunteer work.

**Figure 1E-3. FY 2016 Career Sectors of Veterans who Achieved Rehabilitation (in %)**



\* Faith-based community organizations

Source: Department of Veterans Affairs, VBA Annual Benefits Report, 2016.

In FY 2016, VR&E provided services to 137,097 Veterans, including those who began a plan in that year or previous years. Over 10,000 Veterans were placed in full-time employment this year earning an average annual wage of just over \$46,000. Compared to FY 2015, there was an increase of over 1,500 Veterans placed into full-time employment earning an average of more than \$6,000 a year. Another 1,150 Veterans were rehabilitated through Independent Living services. The remainder of this report analyzes the outcomes of VR&E participants that applied for and entered a plan of services in FY 2010, 2012, and 2014.

## 2. VR&E LONGITUDINAL STUDY

In 2008, Congress passed the Veterans' Benefits Improvement Act of 2008, Public Law 110-389, to improve and enhance compensation and pension, housing, labor and education, and insurance benefits for Veterans. Section 334 of this law amended Chapter 31 by adding a requirement for a 20-year longitudinal study of Veterans who began their vocational rehabilitation program during FY 2010, FY 2012, and FY 2014 (see Figure 2-1). A copy of the law is included in Appendix A.

Figure 2-1. Section 334 of the Veterans' Benefits Improvement Act of 2008 Requiring VA to Conduct a Longitudinal Study of VR&E Program

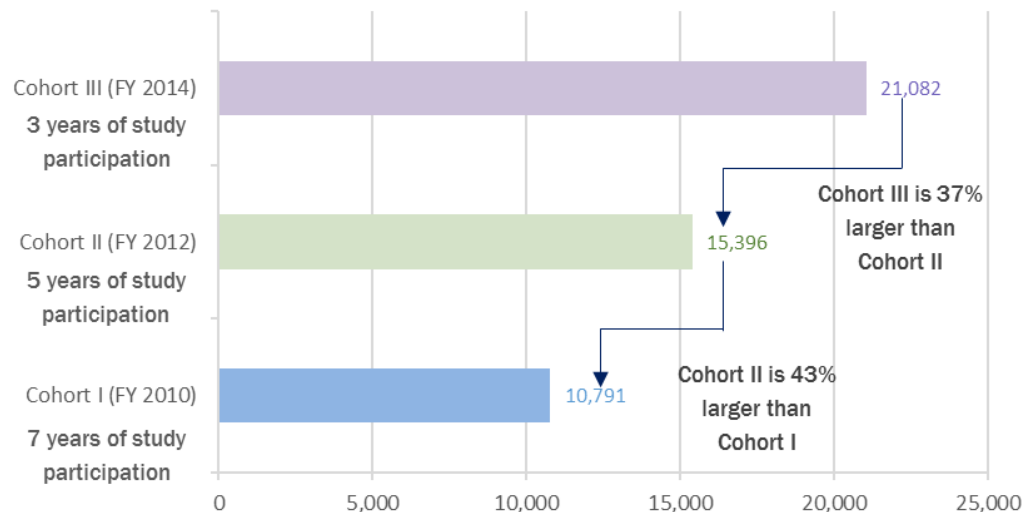
### Sec. 3122. Longitudinal study of vocational rehabilitation programs

#### (a) Study Required.—

- (1) Subject to the availability of appropriated funds, the Secretary shall conduct a longitudinal study of a statistically valid sample of each of the groups of individuals described in paragraph (2). The Secretary shall study each such group over a period of at least 20 years.
- (2) The groups of individuals described in this paragraph are the following:
  - (A) Individuals who begin participating in a vocational rehabilitation program under this chapter during FY 2010.
  - (B) Individuals who begin participating in such a program during FY 2012.
  - (C) Individuals who begin participating in such a program during FY 2014.

In compliance with the law, VA is conducting the VR&E Longitudinal Study to assess the long-term outcomes of three cohorts of participants – those who applied for and began a plan of services during FY 2010, FY 2012, or FY 2014. As shown in Figure 2-2, a total of 10,791 Veterans applied for and began a plan of services during FY 2010 (Cohort I), 15,396 Veterans applied for and began a plan of services during FY 2012 (Cohort II), and 21,082 Veterans applied for and began a plan of services during FY 2014 (Cohort III). As of the end of FY 2016, members of Cohort I have been participating in the VR&E Longitudinal Study for almost 7 years and Cohort II members have been in the study for almost 5 years. Cohort III participants have the shortest study tenure as of the end of FY 2016, with a study participation period of up to 3 years.

Figure 2-2. Number of VR&E Participants in Each Cohort of the Longitudinal Study



Source: Administrative Data

This current report describes the demographic and program characteristics of each cohort, and also assesses the outcomes-to-date for each cohort, as of FY 2016.

For each cohort, some proportion of members have completed their plans (i.e., successfully achieved rehabilitation or achieved their positive outcomes) while other cohort members have discontinued their rehabilitation plans. The remaining cohort

members are still pursuing the objectives of their rehabilitation plans. It is expected that cohort members who have successfully completed the program will achieve better post-program outcomes than cohort members who are still persisting in their plans or who have voluntarily discontinued their plans. Findings related to outcomes are presented by program participation status (i.e., persisting, rehabilitated, or discontinued) (see Figure 2-3) as of the end of FY 2015. Before presenting the findings for all three cohorts as of the end of FY 2016, more details on the study methodology are provided in the next section.

Per GAO Study 14-61, it often takes Veterans 6 years or more to complete training and obtain suitable employment.

Figure 2-3. Definition of Cohort Subgroups included in the Analysis



Source: VR&E

## 2.A. Introduction to the VR&E Longitudinal Study

The primary objective of the VR&E Longitudinal Study is to determine the long-term post-program outcomes associated with Veterans who establish a plan of services. The long-term post-program outcomes of interest include employment, income, home ownership, and use of supplemental public programs, such as unemployment, Social Security Disability Insurance, or other public assistance. Results of this study are intended to improve the quality of services that the VR&E program provides to Veterans.

Section 334 of Public Law 110-389 requires VA to report to Congress annually on 16 specific data elements. The 16 data elements include specific outcome measures to be assessed, as well as 9 specific measures to be

considered as possible covariates to be included in the analyses to explain employment outcomes. Table 2A-1 lists these outcomes and background characteristics along with the data sources that are used to define each measure.

The study focus: Long-Term Post-Program Outcomes such as:

- **Employment** – Months employed, and starting and ending salary for the current study year.
- **Income** – Average annual and total household income.
- **Home ownership** – Percent of Veterans who own their principal residences.
- **Use of public programs** – Types of Social Security and unemployment benefits Veterans receive.



Table 2A-1. Data Elements Mandated by Section 334 of Public Law 110-389 to be Collected for the VR&E Longitudinal Study

Domain	Measure	Source of Data
<b>Background characteristics</b>	<ul style="list-style-type: none"> <li>▪ The number of individuals participating in vocational rehabilitation programs under this chapter who suspended participation in such a program during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Administrative Data</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average number of months such individuals served on active duty</li> </ul>	<ul style="list-style-type: none"> <li>▪ Administrative Data</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The distribution of disability ratings of such individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Administrative Data</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The types of other benefits administered by the Secretary received by such individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Administrative Data</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The number of such individuals enrolled in an institution of higher learning, as that term is defined in section 3452(f) of this title</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average number of academic credit hours, degrees, and certificates obtained by such individuals during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average number of visits such individuals made to Department medical facilities during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average number of visits such individuals made to non-Department medical facilities during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average number of dependents of each such veteran</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
<b>Employment</b>	<ul style="list-style-type: none"> <li>▪ The average number of months such individuals were employed during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average annual starting and ending salaries of such individuals who were employed during the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey, Administrative Data</li> </ul>
<b>Income</b>	<ul style="list-style-type: none"> <li>▪ The average annual income of such individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ The average total household income of such individuals for the year</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
<b>Home ownership</b>	<ul style="list-style-type: none"> <li>▪ The percentage of such individuals who own their principal residences</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
<b>Use of other public program benefits</b>	<ul style="list-style-type: none"> <li>▪ The types of Social Security benefits received by such individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Survey</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Any unemployment benefits received by such individuals</li> </ul>	

Note: A copy of Section 334 of Public Law 110-389 is included in Appendix A.

Source: Table adapted from Section 334 of Public Law 110-389.

The first step of data analysis includes a descriptive examination of the frequency distributions of various demographic and program characteristics of each cohort, by participation status (i.e., persisting, rehabilitated, or discontinued). Observed differences among subgroups within each cohort are examined further for statistical and programmatic significance, and differences across cohorts are assessed as well. Examination of the cumulative annual rates for Veteran satisfaction, rehabilitation, and discontinuation over time provides insights into program trends. In addition to describing the characteristics of the cohorts and discussing the trends related to exiting the VR&E program, regression modeling is used to identify the individual and program characteristics associated with program satisfaction and exiting the program.

A similar strategy of first conducting descriptive analysis and then using regression analysis to identify key factors associated with the long-term post-program outcomes of interest was followed. Current differences and trends over time in employment, income, home ownership, and receipt of other program benefits were examined and compared for persisting, rehabilitated, and discontinued cohort members. Differences among subgroups within each cohort were assessed for statistical significance. In addition to describing the outcomes and discussing observed trends, regression modeling is used to determine the factors that are associated with long-term post-program outcomes.

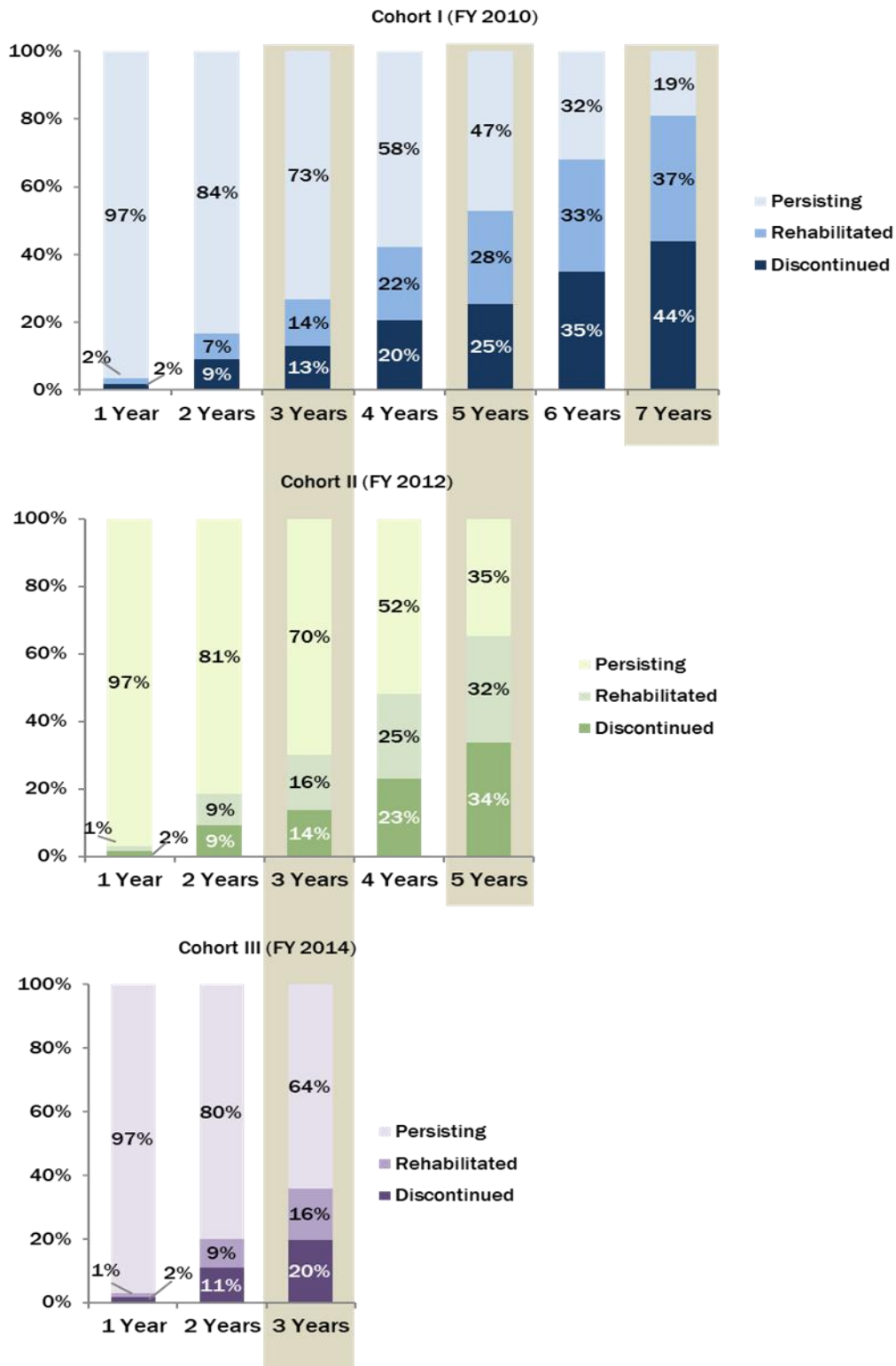
At the end of FY 2016, Veterans in Cohort I, II, and III have been pursuing the objectives of their individualized rehabilitation plan for up to 7, 5, and 3 years, respectively. Because the

Percent of Veterans Who Have Achieved Rehabilitation by FY 2016		
<b>37%</b>	<b>32%</b>	<b>16%</b>
<b>Cohort I</b>	<b>Cohort II</b>	<b>Cohort III</b>
(Up to 7 Years of VR&E Participation)	(Up to 5 Years of VR&E Participation)	(Up to 3 Years of VR&E Participation)

three cohorts have entered the study at different points in time and are at various stages of pursuing the objectives of their rehabilitation plans, comparisons across cohorts cannot be made for end of the year outcomes (e.g., as of end of FY 2016). Instead, cohort comparisons are examined for similar time frames, specifically where cohorts have reached the same point in the program since entering the study. Figure 2A-1 shows that because Cohort II (FY 2012) members have been in the program for up to 5 years, 5-year outcomes can be compared for Cohort II members with the 5-year outcomes for Cohort I (FY 2010) members. Similarly, 3-year outcomes can be compared across all three cohorts. Three-year outcomes only provide preliminary findings for this study. A detailed comparison of outcomes at these points can be found in Section 3F of this report. These findings are still considered preliminary as Veterans in the program face complex issues and may take longer to achieve rehabilitation. Program success such as rehabilitation is not measured until year six as a recent study conducted by the U.S. Government Accountability Office (GAO) revealed that it often takes Veterans six years or more to successfully achieve rehabilitation.<sup>5</sup>

<sup>5</sup> <http://www.gao.gov/assets/670/660160.pdf>

Figure 2A-1. Cohort Appropriate Comparison Points



Source: Administrative Data

## 2.B. Data Sources used for the VR&E Longitudinal Study

The VR&E Longitudinal Study data sources used for analysis include: (1) self-reported survey data collected from a sample of cohort members, and (2) administrative data. Details about the survey methodology are included in Appendix B.

### Main data sources for the VR&E Longitudinal Study:

- ❖ Survey Data
- ❖ Administrative Data

Administrative Data focuses on information about the participants while they are in the program and their immediate post-program circumstances. Therefore, as Veterans complete their rehabilitation programs, there is limited administrative data available regarding the long-term outcomes of interest. After participants end their

programs, available administrative data only provides information on changes in disability status, use of health care assistance, death status, and re-entry into the VR&E program. Information about employment and standard of living outcomes, such as changes in employment status, annual wages from employment, income, and home ownership, come from survey data. A copy of the survey instrument for the VR&E Longitudinal Study is included in Appendix C and Appendix D, which includes a list of the relevant administrative variables used for analysis.

Findings reported in the first two years of the VR&E Longitudinal Study (2010 and 2011 report) were based on available administrative data. The initial survey for the study was administered to Cohort I and Cohort II in the fall of 2012, and annual follow-up surveys were fielded every subsequent year. For this current report, data collection for the fourth annual follow-up survey began in the winter of 2017 for Cohorts I and II. All Veterans and Servicemembers in Cohorts I and II who completed the initial survey in 2012 were encouraged to participate this year for the fourth annual follow-up unless they had explicitly refused to be included in the survey moving forward.<sup>6</sup> The initial survey for Cohort III was administered early in 2015, and the second annual follow-up was administered in the winter of 2017.

The sampling plan for the survey was designed to yield 3,500 completed surveys from each cohort during the initial year of administration. This was achieved with 3,710 Cohort I members, 3,636 Cohort II members, and 4,102 Cohort III members responding to the initial survey. These same respondents who completed the initial survey were the starting sample for the FY 2016 survey administration, which yielded 1,677 responding from Cohort I, 1,741 responding from Cohort II, and 2,212 responding from Cohort III (see Table 2B-1).<sup>7</sup>

<sup>6</sup> During the first year of survey data collection in 2012, a \$20 incentive was offered to Veterans who completed the initial survey. The incentive was not offered for the first annual follow-up administered in 2013, however a \$20 incentive was reinstituted for the 2014 survey. For the 2015 survey year, a \$10 incentive was provided to survey respondents. The incentive was not offered for this year's survey.

<sup>7</sup> Appendix E includes details on the procedures used for survey non-response weighting.

Table 2B-1. VR&E Longitudinal Survey Completions during 2016 Administration

Respondent Type	Fourth Annual Follow-up Survey		Second Annual Follow-up Survey
	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Cohort population	10,791	15,396	21,080
Total initial survey respondents	3,710	3,636	4,102
Deceased survey sample members	86	59	17
Final refusals from previous survey cycles <sup>3</sup>	108	60	28
Eligible potential respondents for FY 2016 survey	3,516 <sup>1</sup>	3,516 <sup>1</sup>	4,057 <sup>2</sup>
Final refusals from FY 2016 survey <sup>3</sup>	8	3	11
FY 2016 survey non-respondents	1,839	1,776	1,845
FY 2016 survey respondents (completed surveys)	1,677	1,741	2,212
Web survey	1,049	1,194	1,521
Mail survey	381	300	377
Telephone survey	247	247	314
Response rate	47.70%	49.52%	54.52%

<sup>1</sup> Eligible potential respondents include cohort members who completed the initial survey and were still alive at the start of the field period for the second annual follow-up.

<sup>2</sup> Eligible potential respondents include cohort members who were not deceased and cohort members who did not refuse to be contacted for follow-up surveys.

<sup>3</sup> Final refusals include those respondents who indicate that they do not want to participate, and want no further contact about the study in future years.

Source: VR&E Longitudinal Survey

## 2.C. Policy and Environmental Conditions at Cohort Entry

There are many factors that influence a Veteran's decision to seek assistance from VR&E. Many of these are personal factors, such as the nature and severity of a disability, level of education, professional skills, length of time employed, and family finances. Once a counselor determines that a Servicemember or Veteran is entitled to VR&E benefits, personal factors, such as their ability, aptitude, and interest, impacts will be assessed to help the type of track selection pursued while in the VR&E program, as well as the length of time it takes to complete the program. However, there are often external factors, such as underlying policy and environmental conditions that can affect program participation and subsequent employment outcomes. These conditions interact with the personal factors and may help to explain the decision to enter into a plan of services with VR&E and the outcome of that decision. Some of these external factors are discussed below in more detail to illustrate the conditions that were present at the time of cohort entry. This section provides information regarding Veterans at the time of entry into the program and does not provide analysis beyond those years. As such, data for this section will not be updated beyond FY 2015, as all cohort Veterans in the study were already enrolled in the VR&E program by that time.

**Changes in number of potential eligible Veterans.** Both the number of Servicemembers separating from the military and the number of Veterans determined to have a service-connected disability rating affect the potential number of Veterans eligible for VR&E services. Military personnel levels are typically expressed in terms of end strength, which is the maximum number of personnel each of the military services is authorized to have on the last day of the fiscal year (September 30). The number of military separations is related to the end strength cap and is dictated by Congress each fiscal year. Table 2C-1 shows the end strength levels authorized in FY 2007 through FY 2015 by the NDAA for each fiscal year. In general, between FY 2007 and FY 2011, end strength levels grew, peaking at just over 1.43 million Servicemembers. Since then, end strength levels have declined, which is likely to continue based on recent Congressional discussions regarding the Federal budget and requisite personnel levels for the military services.

Table 2C-1. End Strength Levels Authorized in the National Defense Authorization Act, FY 2007 through FY 2015

Fiscal Year	Army	Navy	Marine Corps	Air Force	Total
2007	512,400	340,700	180,000	334,200	1,367,300
2008	525,400	329,098	189,000	329,563	1,373,061
2009	532,400	326,323	194,000	317,050	1,369,773
2010	562,400	328,800	202,100	331,700	1,425,000
2011	569,400	328,700	202,100	332,200	1,432,400
2012	562,000	325,700	202,100	332,800	1,422,600
2013	552,100	322,700	197,300	329,460	1,401,560
2014	520,000	323,600	190,200	327,600	1,361,400
2015	490,000	323,600	184,100	311,220	1,308,920

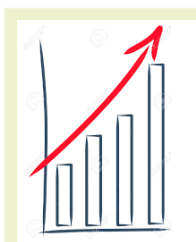
Source: NDAA for FY 2007 through FY 2015.

The declining active duty end strength numbers stem from military policy and budgetary decisions. The U.S. military completed its withdrawal of troops from Iraq in 2011 and began a drawdown of forces in Afghanistan in 2012. In January 2012, Secretary of Defense Leon Panetta announced that Pentagon spending would be decreased over the next decade by \$487 billion. In general, as end strength declines, the number of military separations increases. Table 2C-2 shows the number of military separations from FY 2007 through FY 2015 for the four branches of service combined. Overall, the table shows an increase in separations between FY 2010 and FY 2014, while in FY 2015 there was a sudden decrease.

Table 2C-2. Number of Military Separations from FY 2007 through FY 2015

Fiscal Year	Total
2007	210,226
2008	185,101
2009	179,273
2010	176,248
2011	184,484
2012	201,958
2013	206,218
2014	204,556
2015	188,276

Source: Department of Defense, Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy, *Annual Demographic Profile of the Military Community Reports 2007-2015*. Accessed from [http://www.militaryonesource.mil/search?content\\_id=268828](http://www.militaryonesource.mil/search?content_id=268828)



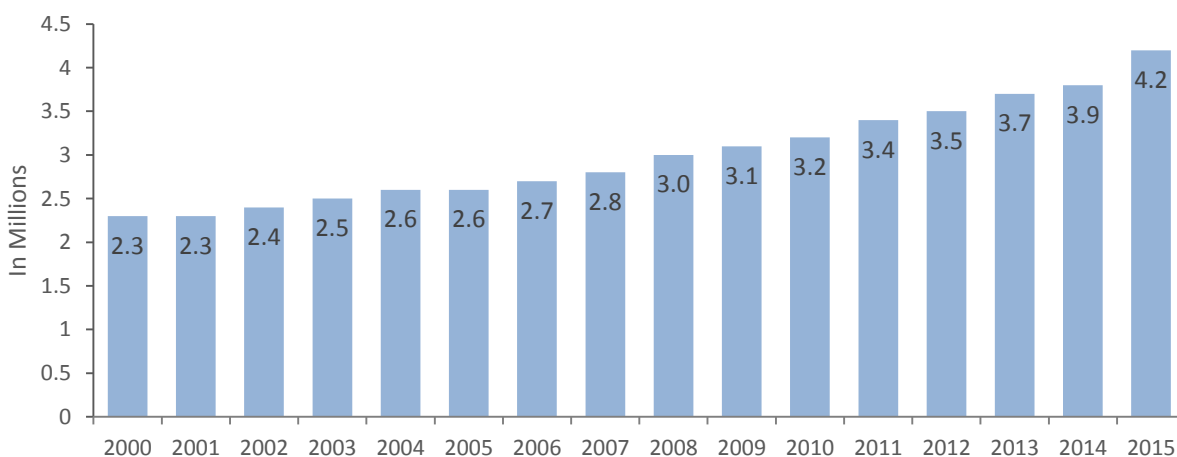
The number of Veterans with a service-connected disability rating of 70% or higher increased from about 352,000 in 2001 to almost 1,434,000 in 2015.

A greater portion of military personnel are transitioning to Veteran status with a disability rating. Due to the improvements and technological advances in military medicine and equipment, more Servicemembers are surviving injuries, compared to previous wars. One research study<sup>8</sup> that examined injuries related to

involvement in the Iraq and Afghanistan campaigns reported that, unlike previous wars such as World War II and the Vietnam conflict where only 70 to 75 percent of Servicemembers survived their injuries, more than 90 percent of Operation Enduring Freedom / Operation Iraqi Freedom Servicemembers survived their injuries. However, consequently, some soldiers separate from active duty with multiple injuries, to include many with “invisible wounds” such as hearing impairments, degenerative vision, or post-traumatic stress disorder. These injuries can have a significant impact on a Veteran’s ability to obtain and maintain employment.

As Figure 2C-1 shows, the number of Veterans with a service-connected disability has risen substantially since 2000. Further examination of this same data indicates that the growth in the number of Veterans with a service-connected disability is concentrated among those rated 50 percent or higher (see Figure 2C-2). In particular, there has been a marked increase in the number of individuals with disability ratings of 70 percent or higher starting in 2001, coinciding with the beginning of combat operations in Afghanistan.

**Figure 2C-1. Number of Veterans with a Service-Connected Disability, FY 2000 - FY2015**

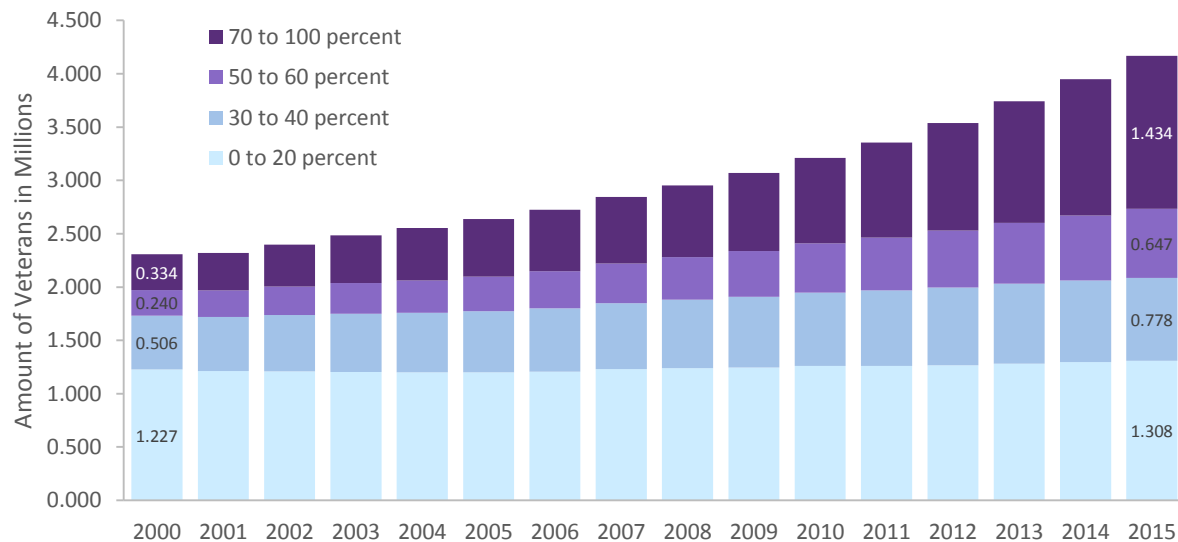


Source: Department of Veterans Affairs, VBA Annual Benefits Reports, 2000-2015.

<sup>8</sup> Gawande, Atul, “Casualties of War – Military Care for the Wounded from Iraq and Afghanistan,” *New England Journal of Medicine*, Vol. 351, No. 24, December 2004, pp. 2471-2475.



**Figure 2C-2. Number of Veterans with a Service-Connected Disability by Disability Rating Groups, FY 2000 – FY 2015**



Source: Department of Veterans Affairs, VBA Annual Benefits Reports, 2000-2014.

The number of Veterans receiving disability compensation has also steadily grown in recent years, increasing by over 1 million individuals (~41 percent) between FY 2008 and FY 2015 (see Table 2C-3). In fact, as shown in Table 2C-4, the number of Veterans who began receiving disability compensation increased by more than 60 percent between FY 2008 and FY 2015. This trend is due to increased efforts by VA to reduce the disability claims backlog and the substantial growth in the number of Veterans with an initial disability rating of 50 percent or higher in this time period, indicating more complex or severe disabilities.

**Table 2C-3. Number of Veterans with Service-Connected Disabilities Receiving Compensation, FY 2008 through FY 2015**

Fiscal Year	Total
2008	2,952,282
2009	3,069,652
2010	3,210,261
2011	3,354,741
2012	3,536,802
2013	3,743,259
2014	3,949,066
2015	4,168,774

Source: Department of Veterans Affairs, VBA Annual Benefits Reports, 2008-2015

Table 2C-4. Number of Veterans with Service-Connected Disabilities Who Began Receiving Compensation by Disability Rating, FY 2008 through FY 2015

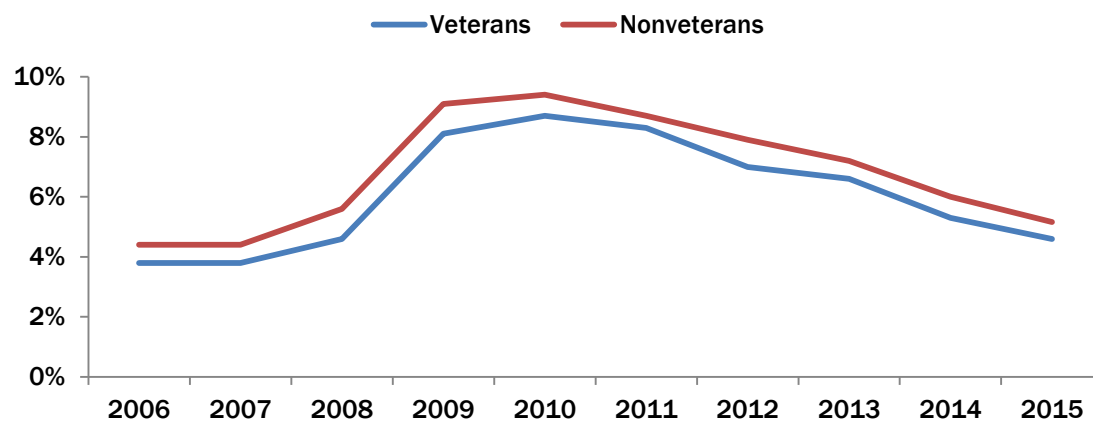
Disability Rating	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Percent Change FY 2008 – FY 2015
0%	551	624	635	522	710	781	753	611	11%
10%	53,374	58,949	70,872	68,834	67,541	72,608	72,759	77,773	46%
20%	33,024	34,069	36,763	28,980	31,163	32,248	30,286	29,771	-10%
30%	26,368	27,495	29,078	32,089	30,602	31,549	29,985	30,604	16%
40%	20,539	21,311	21,145	18,576	24,051	26,554	25,436	26,294	28%
< 50%	133,856	142,448	158,493	149,001	154,067	160,740	159,219	165,053	23%
50%	14,513	15,239	16,217	15,989	20,979	23,083	22,727	24,518	69%
60%	13,849	14,873	14,903	18,314	24,477	26,880	26,341	27,697	100%
70%	10,031	10,729	11,457	12,297	21,280	25,410	25,318	27,738	177%
80%	6,233	7,199	7,648	7,808	15,054	19,664	20,799	22,234	257%
90%	2,927	3,475	4,010	4,131	9,070	13,611	16,208	18,439	530%
100%	9,909	11,103	12,175	15,467	16,912	20,287	23,264	27,373	176%
50%-100%	57,462	62,618	66,410	74,006	107,772	128,935	134,657	147,999	158%
Total	191,318	205,066	224,903	223,007	261,839	292,675	293,876	313,052	64%

Source: Department of Veterans Affairs, VBA Annual Benefits Report 2015.

## 2.D. Trends in a U.S. Economic and Veteran Employment Context

Over time, it is likely that the U.S. economic and employment climate has a potential impact on the number of Veterans seeking assistance from VR&E. Figure 2D-1 shows that from 2006 through 2015 Veteran unemployment mirrored overall unemployment, with Veterans consistently having roughly 1 percentage point lower unemployment rates than the overall population. According to the Bureau of Labor Statistics, in August 2015 the unemployment rate for Veterans with a service-connected disability mirrored that of Veterans with no disability.<sup>9</sup>

Figure 2D-1. Annual Unemployment Rates for the Total Population, 18 Years and Older by Veteran Status, FY 2006 - FY 2015

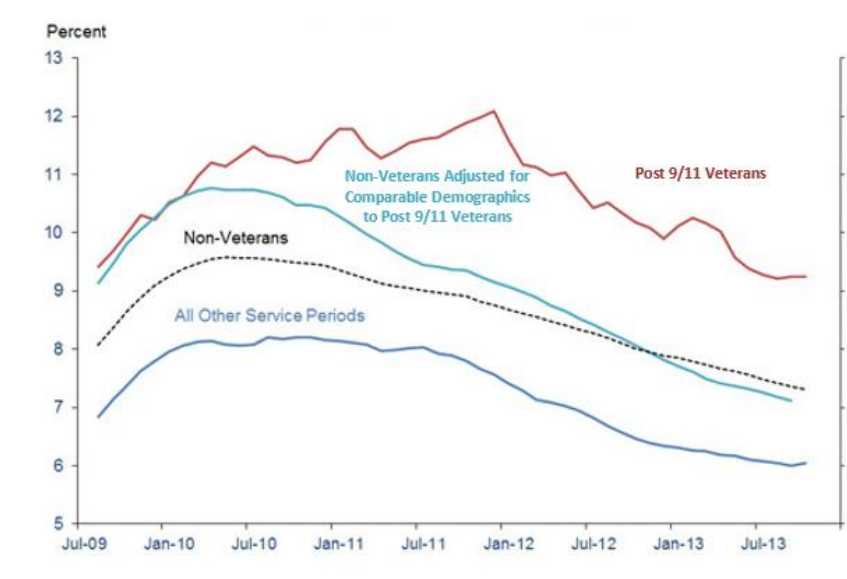


Source: Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey extracted on June 20, 2017. Accessed from <http://www.bls.gov/webapps/legacy/cpsatab5.htm>.

Although unemployment rates declined from 2010 to 2015, the job market remained relatively competitive. While for the past two years Veterans unemployment has been under the National Rate, the White House Council of Economic Advisers statistics show that post 9/11 Veterans have a higher unemployment rate than both non-Veterans and Veterans from all other service periods combined (Figure 2D-2). These unemployment statistics indicate that Veterans with service-connected disabilities have experienced significant employment barriers similar to, and sometimes greater than, those of the general population.

<sup>9</sup> U.S. Department of Labor, Bureau of Labor Statistics, "Employment Situation of Veterans Summary," Washington, D.C., March 18, 2015.

Figure 2D-2. Unemployment Rates for Veterans Compared to Non-Veterans, July 2009 through July 2013 (in percent)



Note: Unemployment rate is a 12-month moving average based on not seasonally adjusted data.

Source: Furman, Jason. "The Employment Situation in October." November 8, 2013. Accessed from <http://www.whitehouse.gov/blog/2013/11/08/employment-situation-october>

**Legislative changes concerning Veterans returning to work.** In recent years, several pieces of legislation have expanded and enhanced VR&E services for Servicemembers and Veterans. VA conducted extensive outreach to inform Servicemembers and Veterans of recent provisions and the availability of these expanded benefits. In 2011, Public Law 111-377, for example, modified the program so that Veterans eligible for both VR&E training and the Post-9/11 GI Bill could elect to receive the Chapter 33 Post 9/11 training Subsistence Allowance rate instead of VR&E's regular training Subsistence Allowance rate. In 2012, Title II of Public Law 112-56 Section 232 allowed the VA to pay an incentive to employers to hire or train Veterans participating in the VR&E program. The law has been extended multiple times through December 31, 2017. As the long-term post-program outcomes of the study cohorts are assessed over time, it will be important to understand the nature and extent of these recent legislative changes to the VR&E program, as they could affect both program participation and long-term outcomes. In fact, the VR&E program has experienced a significant increase in program participation beyond FY 2012.

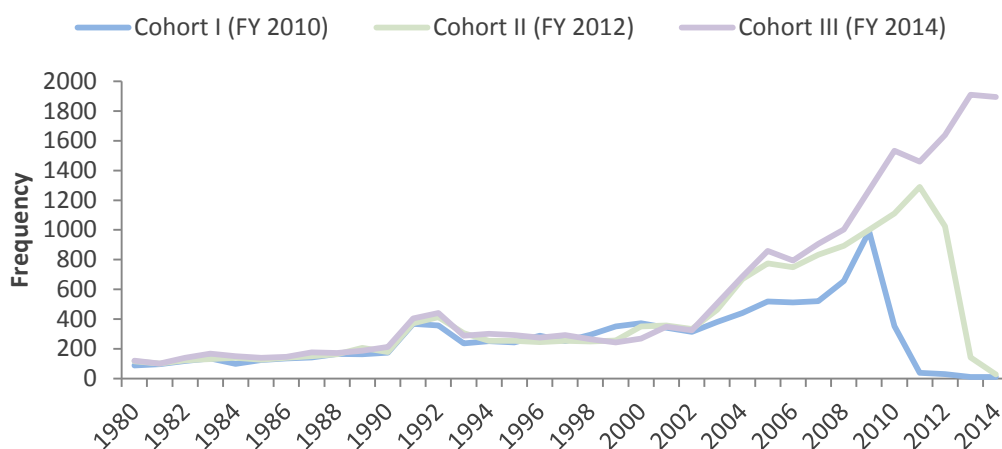
**Recent increases in VR&E program participation.** From FY 2012 to FY 2014, there has been a marked increase in the number of Servicemembers and Veterans who began a VR&E rehabilitation plan of services. There are 43 percent (4,605) more members in Cohort II (FY 2012) than in Cohort I (FY 2010) and 37 percent (5,692) more members in Cohort III (FY 2014) than in Cohort II. While the exact reason for this increase is

The number of Veterans and Servicemembers who began a VR&E rehabilitation plan has substantially increased: **Cohort III (FY 2014) is 95% larger than Cohort I (FY 2010).**

difficult to discern, there are several factors that contribute to this increase over time in the number of Veterans and Servicemembers who apply for and begin a plan of VR&E services as discussed below.

First, increases in the number of Veterans eligible for VR&E services are driven, in part, by increases in military separations and the number of Veterans with a service-connected disability. Second, there has been a marked increase in the number of Veterans with a combined disability rating of 50 percent or more since 2007, which may contribute to the demand for VR&E services. Consistent with these trends, Figure 2D-3 reveals that the increase in the size of the cohorts from FY 2010 to FY 2014 is largely due to higher numbers of recently separated Veterans seeking VR&E services.

**Figure 2D-3. Distribution of the Year of Military Separation (from 1980 to 2014) for Cohorts I, II, and III**



Source: Administrative Data

Furthermore, in addition to the growth of disability claims in recent years, in the past two years, VBA has increased efforts to reduce the claims backlog. The claims backlog totaling 611,703 on March 25, 2013, was substantially reduced to 84,838 as of March 5, 2016, a reduction of 86.1 percent.<sup>10</sup> The decreased backlog means an increased number of Veterans who are eligible to apply for VR&E benefits.

Fourth, although the U.S. economic and employment climate is improving, the job market remains competitive, which may be encouraging more individuals to seek VR&E services. Finally, recent changes in program eligibility and provisions may have attracted more Veterans with service-connected disabilities to the program.

In addition, recent agency-level initiatives such as IDES have focused on increased outreach to Veterans and Servicemembers and may have had an impact on the number of Veterans entering into a plan of services with VR&E. No doubt the cumulative effect of all of these related factors has contributed to the increase in the number of Veterans and Servicemembers who begin a plan of VR&E services.

<sup>10</sup> [http://benefits.va.gov/reports/mmwr\\_va\\_claims\\_backlog.asp](http://benefits.va.gov/reports/mmwr_va_claims_backlog.asp)

## 2.E. Interpreting Longitudinal Study Findings

This current report presents findings for the VR&E Longitudinal Study as of FY 2016, the seventh year of the 20-year study period. Summary findings for all three cohorts are presented in Section 3 of the report. Information on how to interpret the information presented in summary tables and figures is provided in Appendix F. Detailed findings for each cohort are provided separately in Appendices G, H, and I. As of the end of FY 2016, Cohort I members who began their plan of services very early in FY 2010 have been in the VR&E program for at most seven years, and Cohort II members who began services very early in FY 2012 have been in the program for at most five years. Similarly, Cohort III members who began services very early in FY 2014 have been in the program for at most three years. At this early point in the study period, emerging trends related to outcomes can be described. Because the majority of cohort members are still pursuing the objectives outlined in their rehabilitation plans, any conclusions drawn at this point in the 20-year study period are preliminary. However, emerging trends for those cohort members who have exited the VR&E program thus far, especially so for those who successfully completed their rehabilitation plans, appear to be consistent over time and across cohorts.

Because the majority of cohort members are still persisting in the program, post-program findings are still preliminary at this point in the study.

**Program outcomes.** As Veterans work to complete the objectives of their rehabilitation plans, the proportion of cohort members who exit the program increase over time. Because most VR&E participants pursue Employment through Long-Term Services track, which usually takes multiple years to complete, the majority of Veterans are still persisting in their programs as of FY 2016. However, a substantial number of cohort members have successfully achieved rehabilitation or discontinued their plan of services at this point in the study. Hence, this current report describes the characteristics of those cohort members who are still persisting and have successfully achieved rehabilitation, as well as those who have discontinued, by the end of FY 2016.

It remains important to **track** changes such as **returns** after discontinuation or **re-entering** the program after having successfully completed the program to examine how entering the program more than once may influence outcomes.

### Long-term employment and standard of living

**outcomes.** Although many of the cohort members are still persisting in the program, a proportion have achieved rehabilitation or discontinued as of FY 2016 allowing analysis of outcome data and description of early trends related to employment and income, particularly for Cohort I. Because those cohort members have been in the study for up to seven years,

a larger proportion of Cohort I members, relative to Cohorts II and III, have achieved rehabilitation (or discontinued) and more positive outcomes. However, these post-program findings are still preliminary at this point in the study.

**Future reports.** As these three cohorts are followed over time and as more VR&E participants exit the program, there will be more information on the long-term post-program outcomes and the key

programmatic and demographic factors influencing these outcomes. As multiple years of data are collected, it will be possible to examine more salient trends in outcomes. Furthermore, it is reasonable to expect that trends in outcomes across all three cohorts will become increasingly similar as the majority of Veterans will have exited their program of service.

Section 3E of this report provides a preliminary analysis of program participants who re-enter the program after achieving rehabilitation or discontinuing. As more Veterans re-enter the program, it will be imperative in future reports to examine how entering the program more than once may influence outcomes. Future reports will also include an analysis of administrative data provided to VA by the Social Security Administration, through the use of a data sharing agreement, which will provide more accurate estimates on the number and percentage of cohort members who receive income from various Social Security programs, such as the Disability Insurance program.

### 3. CURRENT FINDINGS AS OF FY 2016

As of FY 2016, Cohort I members have been tracked in the VR&E Longitudinal Study for up to 7 years, and Cohort II members have been in the study for up to 5 years. VR&E participants in Cohort III have the shortest tenure being in the study at 3 years. This section of the report presents a summary of findings for all three cohorts as of FY 2016. Appendix F provides summary information on how to understand and interpret the data presented in the tables and figures. Appendices G, H, and I present more detailed findings for each of the three cohorts as of FY 2016.

On July 1, 2015, VR&E implemented new program performance measures that place a greater focus on Veteran outcomes and their accomplishments. These new measures of Veterans' success in the VR&E program are driven by positive outcomes and active participation. Positive outcomes include rehabilitation (IL and Employment), rehabilitation for further education, and maximum rehabilitation gains (either employed or employable). These new metrics effectively measure Veterans' outcomes at every stage of their progression through the program and more accurately account for Veterans' multi-year participation in the VR&E program.

The new model of Veteran success is similar to a college graduation rate and includes two specific measures. The outcomes are:

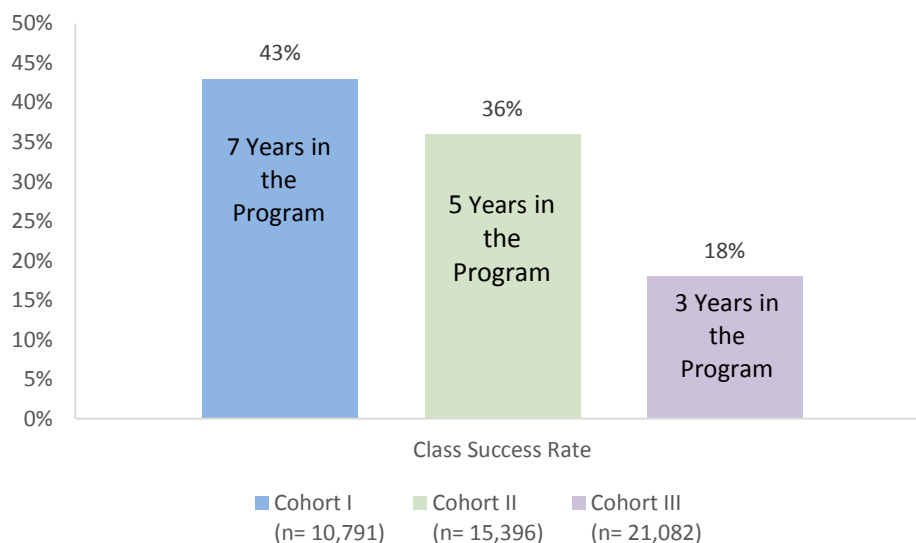
**Class Success Rate:** Percentage of Veterans after 6 years who obtain a positive outcome measured against all Veterans in their year group (class).

**Class Persistence Rate:** Percentage of Veterans after 6 years who obtain a positive outcome and the number of Veterans persisting in their enrollment, measured against all Veterans in their year group (class).

Figure 3-1 shows the current Class Success Rates for all three Longitudinal Study cohorts. The performance target for FY 2016 for the Class Success Rate is 60 percent, which is expected to be met at the end of six years. (Note that VR&E recently re-evaluated the Class Success Rate performance target and baselined it to 55 percent for FY 2017 and FY 2018.) For comparison, the FY 2011 Class Success Rate evaluated at the six-year mark is 47 percent. Overall, the Class Success Rates for Cohort II (36 percent) and Cohort III (18 percent) are lower than 60 percent. Since the majority of Veterans are still persisting in the program and have not had sufficient time to complete their program goals, their successes cannot be evaluated against the performance target. Cohort I success rate may be lower than expected due to re-entries into the program.



Figure 3-1. Class Success Rates by Cohort, to date (FY 16)



Source: Administrative Data, FY 2016

Table 3-1 provides a more detailed summary of successful outcomes. At least 85 percent of Cohort I successful outcomes come from rehabilitations compared to 87 percent for Cohort II and 91 percent for Cohort III. For discontinued Veterans, it is considered a successful outcome if:

- The Veteran is employable in a suitable occupation or is not currently employable, but:
  - Has been receiving services toward a vocationally oriented goal;
  - Substantially improved their circumstances through gain in self-management, self-advocacy, or independence in daily living; or
  - An assessment indicates the Veteran does not currently need Independent Living service or may need Independent Living services but is unable or unwilling to participate.
- The Veteran is employed due to contributions from the VR&E program but their employment does not meet with criteria for closure as rehabilitated.

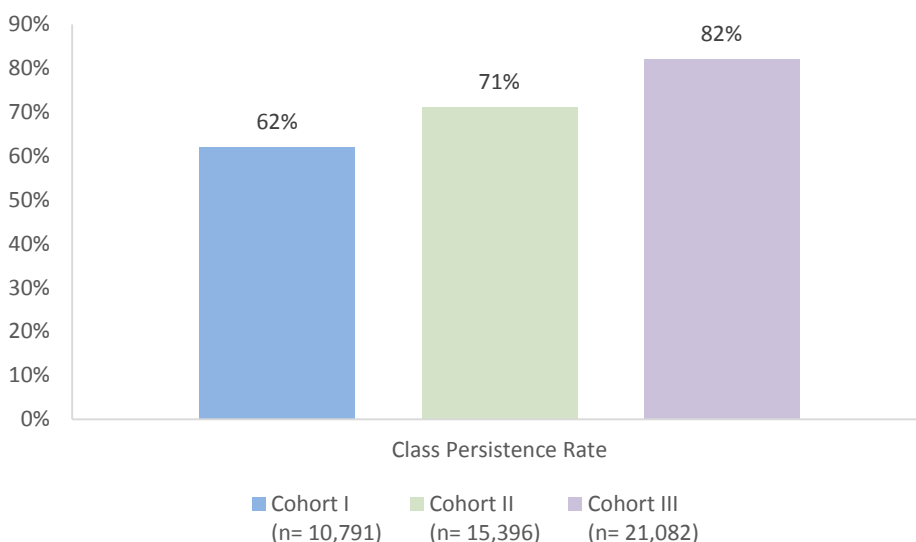
Table 3-1. Successful Outcomes by Code for All Three Cohorts

Current Observation	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Rehabilitated from IL	649	548	311
Rehabilitated from Employment	3329	4334	3083
Rehabilitated from Unknown Track	32	5	1
Discontinued and Employable	551	588	255
Discontinued and Employed	128	129	73
<b>Total Positive Outcomes</b>	<b>4689</b>	<b>5604</b>	<b>3723</b>

Source: Administrative Data, FY 216

For the Class Persistence Rate (Figure 3-2), the performance target is 70 percent for FY 2016. Both Cohort II (71 percent) and Cohort III (82 percent) exceed VR&E's performance target. Meanwhile, Cohort I has a Class Persistence rate of 62 percent, which is 10 percent lower than VR&E actual score for FY 2016, which is 72 percent. These findings are expected as the majority of Cohort II and III are still persisting in the program, while Cohort I is one-year past the six-year evaluation mark.

Figure 3-2. Class Persistence Rates by Cohorts, to date (FY 16)



The rest of this chapter explores FY 2016 data in a similar manner as previous years. Section 3A details Veteran satisfaction with the VR&E program. Next, Section 3B provides a profile of select demographic characteristics of VR&E participants. Program outcomes, both rehabilitation and discontinuation, are analyzed within Section 3C. Section 3D reveals findings related to employment and standard of living outcomes. Section 3E provides analysis of Veterans who re-enter the program after either rehabilitating or discontinuing. Finally, in Section 3F, findings across Cohorts are compared.

### 3.A. Veteran Satisfaction

Through the survey, cohort members were asked to rate their overall experience with the VR&E program, using a 1 to 9 scale, where 1 is unacceptable, 5 is average, and 9 is outstanding. Scale scores between 1 and 3 indicate low satisfaction, whereas scale scores between 7 and 9 indicate high satisfaction. Scale scores near the midpoint of the scale (4 to 6) indicate moderate satisfaction. Figure 3A-1 compares the proportion of VR&E

participants, across the three cohorts, who reported moderate or high satisfaction with the program as of FY 2016, separately for persisting, rehabilitated, and discontinued cohort members. The survey data

is weighted and summed to the cohort population. As shown in the figure, for all three cohorts, the vast majority of VR&E participants are satisfied with the program.

For all three cohorts, at least 90 percent of cohort members who achieved rehabilitation and who are still persisting reported moderate or high satisfaction with the program as of FY 2016. The

majority (at least two-thirds) of Veterans report high satisfaction. In fact, roughly three-quarters of Veterans who achieved rehabilitation reported high satisfaction across all three cohorts.

A substantial proportion of discontinued cohort members also report being satisfied with the program. Seventy-five percent of discontinued Veterans in all Cohorts reported moderate to high satisfaction as of FY 2016. Furthermore, more detailed findings presented in Appendices G, H, and I indicate that the percentage of discontinued participants reporting high levels of satisfaction with the VR&E program have increased over time for all three cohorts.

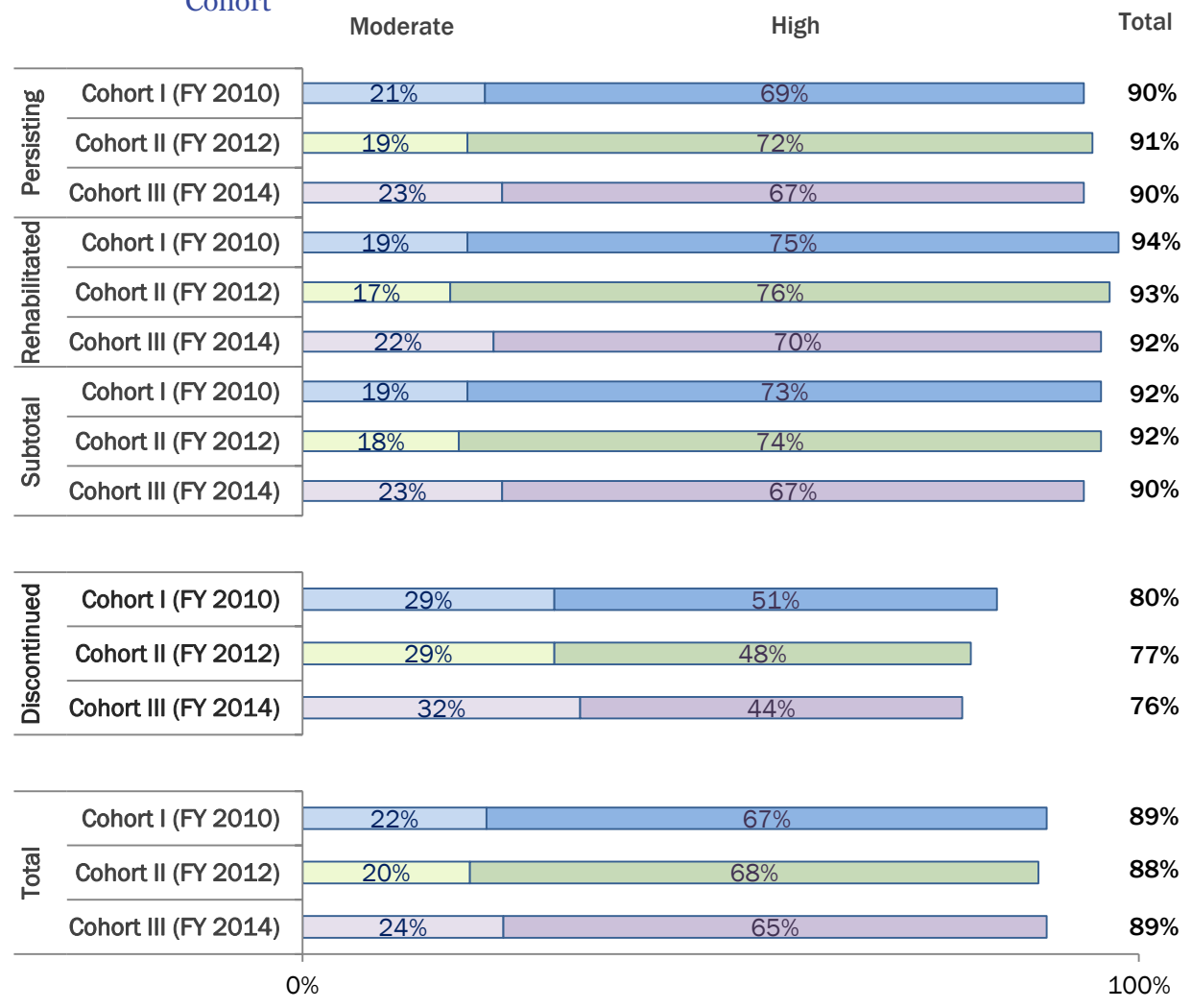
~90%

Participants reporting  
**moderate to high satisfaction**  
with the VR&E program.

~77%

Of discontinued Veterans in all  
Cohorts reported **moderate to**  
**high satisfaction** as of FY 2016.

Figure 3A-1. Percentage of VR&E Participants Reporting Moderate or High Overall Satisfaction with the Program by Participation Status as of end of FY 2016, by Cohort



Note: Percentages (%) reported in figure are based on survey data that has been weighted to reflect the cohort population.

Source: VR&E FY 2016 Survey Data

Multivariate regression analysis is used to identify the factors that affect how satisfied Veterans are with the VR&E program. Regression technique allows us to estimate the effect of any given characteristic on Veterans' satisfaction, while holding all other characteristics constant. For example, female Veterans tend to be younger than male Veterans. If differences in outcomes by gender were examined alone, the analysis might also pick up an age effect, since gender and age are correlated in the Veteran population. If both gender and age were included in a regression analysis however, the independent effect could be identified for each variable on the outcome of interest. Detailed results of the regression analyses are shown in Appendix K. Table 3A-1 below provides a summary of the results of the regression model for all three cohorts. The table displays the direction of impact (i.e., either a positive or negative association) for all variables that have a statistically significant association with Veteran satisfaction with

VR&E. A blank entry in the table means the variable does not have a significant influence on satisfaction for the respective cohort.

**Table 3A-1. Factors that Contribute to Overall Program Satisfaction as of end of FY 2016**

Explanatory Variable	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Rehabilitated (compared to persisting)	+	+	+
Discontinued (compared to persisting)	-	-	-
Employment through Long-Term Services track (compared to Independent Living)	+		
Other employment tracks (compared to Independent Living)			-
Factors that result in placement in an Extended Evaluation (compared to Independent Living) <sup>1</sup>			-
Male		+	
Age	+		
Disability rating <sup>1</sup>			-
Pre-rehabilitation salary	+		
Length of Service <sup>1</sup>		+	
Earned a degree <sup>1</sup>			+
Receiving subsistence allowance for a degree program	+	+	+

Note: The effects are based on a linear regression estimation where the dependent variable is a continuous variable based on a 9-point scale where 1 is unacceptable, 5 is average, and 9 is outstanding.

<sup>1</sup> These factors were not significant in FY 2015

Source: Regression Analysis of FY 2016 VBA Administrative and VR&E Survey Data

Several factors emerge as predictive of Veteran satisfaction with the VR&E program. Specifically, program participation status (persisting, rehabilitated, and discontinued) and the receipt of a subsistence allowance (for participating in a training program) are key drivers of program satisfaction across all cohorts. Specifically, achievement of rehabilitation is associated with higher satisfaction, whereas discontinued Veterans provide lower satisfaction ratings. Holding all other variables equal, participants who received a subsistence allowance report higher satisfaction.

For the FY 2010 cohort only, being in the Employment through Long-Term Services track, being older, and having a higher pre-rehabilitation salary are all associated with higher satisfaction scores. For the 2012 cohort only, being male and length of service are both associated with higher satisfaction. For the FY 2014 cohort only, being in an employment track other than Employment through Long-Term Services has a strong negative effect on satisfaction, as does placement in an Extended Evaluation status and having a higher disability rating. Completing a college degree in the past 12 months is associated with higher program satisfaction for those in the FY 2014 cohort.

Several factors that were significant in FY 2015 were not significant in FY 2016. Those factors include Veterans who had some college or higher education at program entry, primary mental health diagnosis, and Veterans who served in Gulf War II era.

### 3.B. Select Characteristics of VR&E Participants

In this section, select characteristics of cohort members are assessed, including those mandated by Congress, and explore how these characteristics relate to cohort members' program participation status as of FY 2016. Table 3B-1 lists the select participant characteristics examined. Descriptive examination of demographic and other background characteristics of participants can provide insight as to if and how these characteristics influence long-term post program outcomes over time.

Table 3B- 1. Select Characteristics of VR&E Participants Examined in this Study

Characteristic	Description of Variables
<b>Demographics</b>	Serious employment handicap
	Gender
	Age at program entry
	Level of education at program entry
	Era of service
	Length of active duty military service
	Combined disability rating
	Number of dependents
<b>Training selection</b>	Program track
<b>Receipt of other benefits</b>	Visits to a VA medical facility during the past 12 months
	Visits to a non-VA medical facility during the past 12 months
	Receipt of other VA benefits (i.e., VA-insured life insurance and mortgage loans)
<b>Receipt of education or training</b>	Enrollment in an institution of higher learning during the past 12 months
	Number of credits completed during the past 12 months
	Attainment of a degree or certificate during the past 12 months

Source: EconSys Study Team

While Administrative Data allows us to examine certain background characteristics for the entire cohort population, survey data provides additional information for a sample of the cohort that is not otherwise available. The survey data have been weighted to reflect the cohort population.

## Demographics

Table 3B-2 provides a snapshot of select demographic characteristics of the cohorts, as of the end of FY 2016. About three-quarters of cohort members have a serious employment handicap, which is consistent with the proportion in the overall VR&E population.<sup>11</sup> Determination of a serious employment handicap indicates significant impairment in a Veteran's ability to prepare for, obtain, or retain employment consistent with his or her abilities, aptitudes, and interests.

Approximately 3 out of 4 cohort members have a serious employment handicap.

**Table 3B-2. Demographic Characteristics of VR&E Participants by Cohort, as of the end of FY 2016**

Demographic Characteristic	Cohort I (FY 2010)		Cohort II (FY 2012)		Cohort III (FY 2014)	
	#	%	#	%	#	%
<b>Total</b>	<b>10,791</b>	<b>100%</b>	<b>15,396</b>	<b>100%</b>	<b>21,082</b>	<b>100%</b>
<b>Serious Employment Handicap</b>						
Yes	8,096	75%	11,802	77%	15,442	73%
No	2,695	25%	3,594	23%	5,640	27%
<b>Gender</b>						
Male	9,002	83%	12,572	82%	16,853	80%
Female	1,789	17%	2,824	18%	4,229	20%
<b>Age at Program Entry</b>						
Less than 30	1,595	15%	2,679	17%	3,875	18%
30 – 44	4,505	42%	6,722	44%	9,847	47%
45 – 54	2,909	27%	3,769	24%	4,844	23%
55 and above	1,783	17%	2,226	14%	2,516	12%

Source: Administrative Data, FY 2016

About one-fifth of cohort members are female, with more females being represented in the cohorts over time. The percentage of female Veterans in the VR&E cohorts ranges from 17 to 20 percent and is greater than the percentage of female Veterans overall (10 percent<sup>12</sup>). However, the percent of females in these cohorts is consistent with the rate of female Veteran participation in more recent years. As of 2016, females represented about 17 percent of the Gulf War era Veterans.<sup>13</sup>

<sup>11</sup> Source: Department of Veterans Affairs, VBA Annual Benefits Report, 2016.

<sup>12</sup> Office of the Actuary, Veteran Population Projections Model (VetPop2016), Table 1L

<sup>13</sup> Based on 2016 Bureau of Labor Statistics data available at <http://www.bls.gov/news.release/pdf/vet.pdf>.

Overall, cohort members tend to be younger, with the majority being less than 45 years old when they begin their VR&E rehabilitation plans. When comparing age at program entry across cohorts, Table 3B-2 indicates that, over time, the average age of VR&E participants has decreased, from 57 percent of Cohort I members being less than 45 years old to 65 percent in Cohort III.

Over time, the **average age** of VR&E participants at program entry has **decreased**.

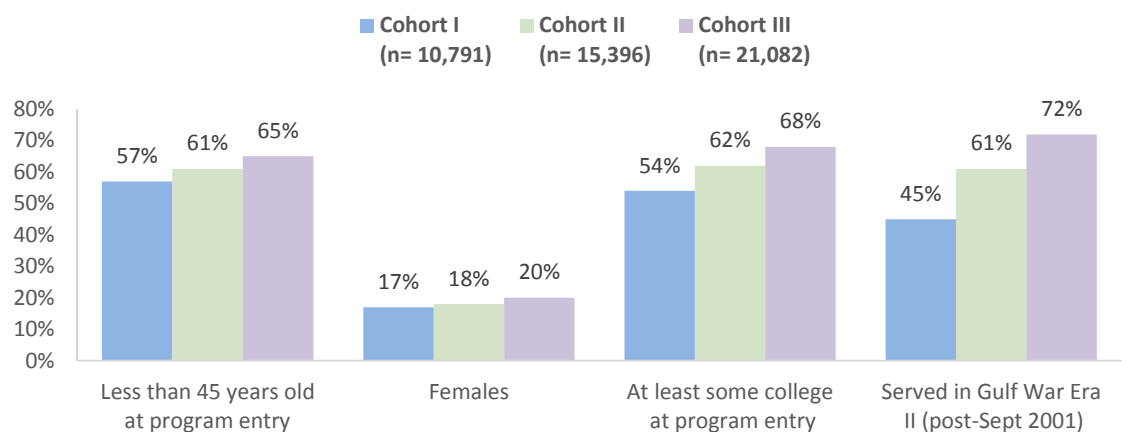
More participants are reporting **higher levels of prior education** at program entry.

More recent cohorts also have a **larger proportion of female Veterans and Veterans who served during the Gulf War era**.

In addition to comparing age and gender across cohorts, Figure 3B-1 presents trends for two other select demographic characteristics at program entry – level of education and era of service. As the figure indicates, over time, Veterans are reporting higher levels of prior education at program entry and the percentage of female VR&E participants is increasing. Similarly, the percentage of participants who have served in the Gulf War II era is also increasing for more recent cohorts. The majority of cohort members are from the Gulf War era, with most being from the

second Gulf War era. In fact, among more recent cohorts, the proportion who served during the Gulf War I era is decreasing while the proportion who served during the Gulf War II era is increasing.

Figure 3B-1. Key Demographic Trends of VR&E Participants at Program Entry



Source: Administrative Data, FY 2016



As shown in Table 3B-3, a substantially larger proportion of VR&E participants have a primary diagnosis of posttraumatic stress disorder (PTSD) than the proportion for overall Gulf War I and Gulf War II era Veterans. In addition, the proportion among cohort members has increased over time, with one-quarter of Cohort I (FY 2010) participants having a PTSD primary diagnosis compared to almost one-third of Cohort III (FY 2014) participants.

**Table 3B-3. Percentage of VR&E Participants with a Primary Diagnosis of Post-Traumatic Stress Disorder as of end of FY 2015**

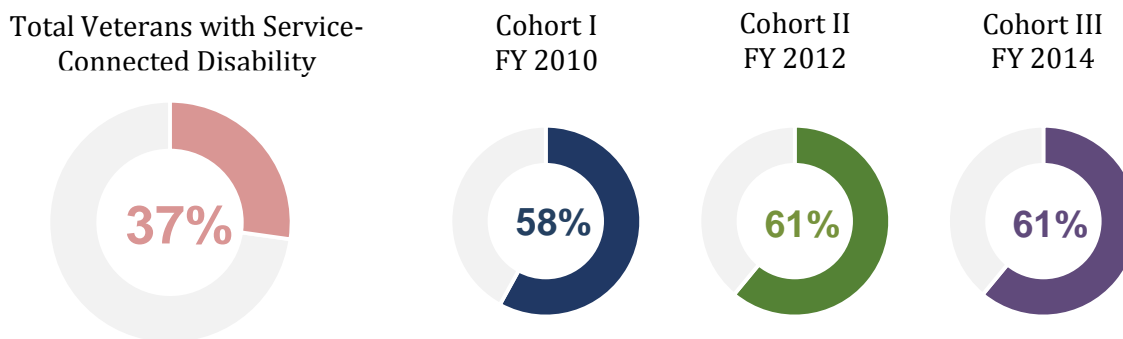
Cohort	Percentage
Cohort I (FY 2010)	25%
Cohort II (FY 2012)	30%
Cohort III (FY 2014)	31%
Gulf War I era Veterans (Desert Storm)	10% <sup>1</sup>
Gulf War II era Veterans (Iraq and Afghanistan)	11-20% <sup>1</sup>

<sup>1</sup> NIH Medline Plus. (2009) PTSD: A Growing Epidemic. 4(1): 10-14.

Source: VR&E FY 2015 Administrative Data. Data was not available for FY 2016.

Comparison of the distribution for combined disability rating for each cohort reveals that VR&E participants have a higher combined disability rating than the average Veteran with a service-connected disability. As shown in Figure 3B-2, on average, about three-fifths of cohort members (58 percent for Cohort I, 61 percent for Cohort II, and 61 percent for Cohort III) have a combined disability rating of 60 percent or more. Among overall Veterans with a service-connected disability, 37 percent reported a disability rating of 60 percent or higher in the August 2016 Current Population Survey.<sup>14</sup>

**Figure 3B-2. Veterans with a Combined Disability Rating of 60 Percent or Higher**



Source: FY 2016 Administrative Data

<sup>14</sup> Based on 2016 Bureau of Labor Statistics data available at <http://www.bls.gov/news.release/pdf/vet.pdf>

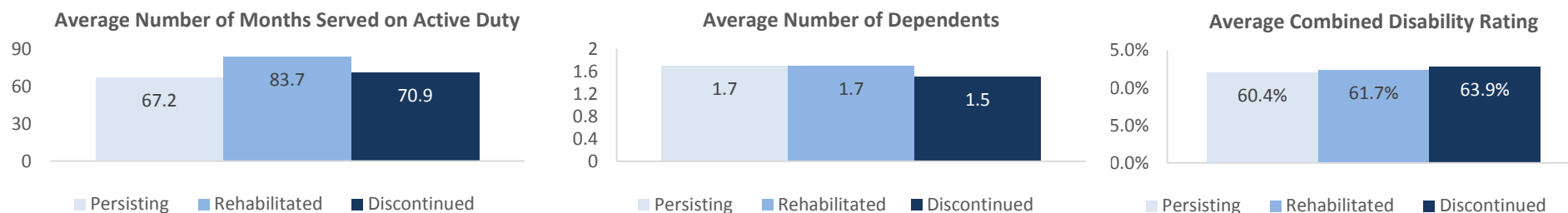
The legislation requiring this study seeks information on specific background characteristics of VR&E participants. Summary statistics on these mandated variables are provided in Figure 3B-3 for each cohort, by participation status. Examination of the table reveals that VR&E participants in more recent cohorts have served on active duty longer. Additionally, for all three cohorts, participants who have achieved rehabilitation have served more months on active duty, relative to persisting and discontinued participants.

The figure also reports the average combined service-connected disability rating for each cohort. The findings indicate that, on average, VR&E participants have a combined disability rating of 60 percent. Furthermore, the table reveals that, on average, discontinued participants have a higher combined disability rating than persisting participants or those who achieved rehabilitation.

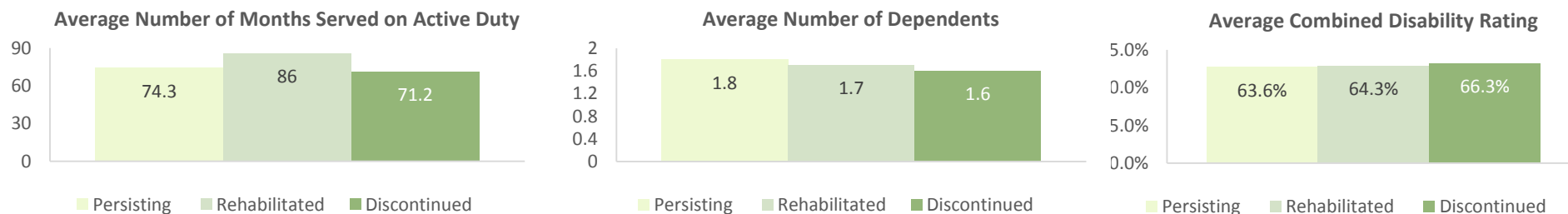
The legislation also requires the study to report the average number of dependents for VR&E participants. Cohort members report an average of slightly less than two dependents.

Figure 3B-3. Mandated Characteristics of VR&E Participants by Participation Status as of end of FY 2016, by Cohort

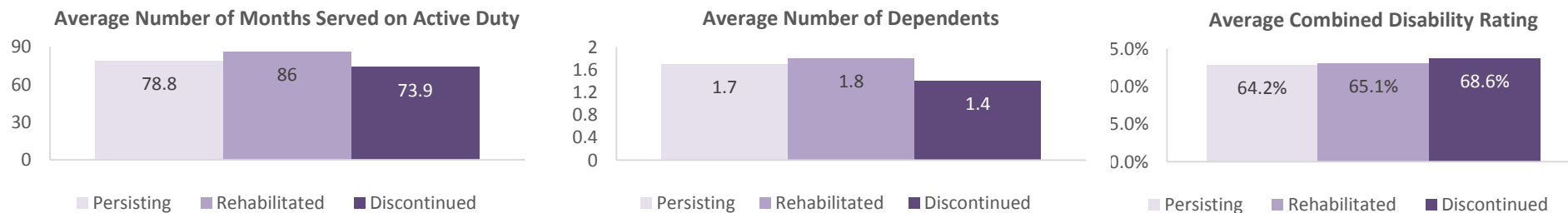
**Cohort 1 FY 2010 (n=10,791)**



**Cohort 2 FY 2012 (n=15,396)**



**Cohort 3 FY 2014 (n=21,082)**



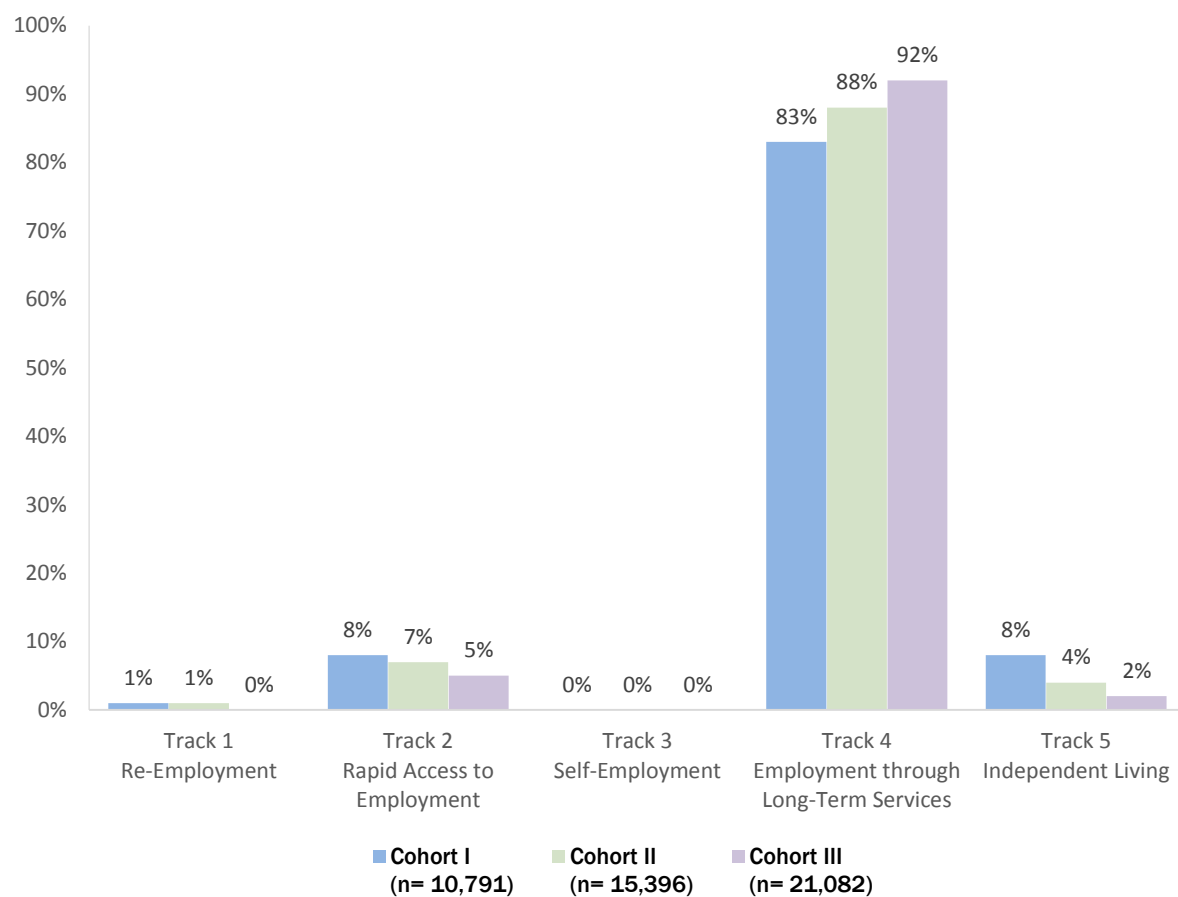
Source: FY 2016 VBA Administrative and VR&E Survey Data

## Training Selection

Figure 3B-4 provides a snapshot of each cohort by their program track selection as of the end of FY 2016. The figure shows that the vast majority of participants – 83 percent for Cohort I, 88 percent for Cohort II, and 92 percent for Cohort III – are in Employment through Long-Term Services track (Track 4). Keeping in mind the length of time that has passed since each cohort began the VR&E program, it is important to note that track selection is one of a few characteristics that can change over time. As a result, a small proportion of cohort members have changed tracks since entering the VR&E program.

Most Veterans in the VR&E program require significant support and re-training to obtain a suitable job. Not surprisingly, in all three cohorts, the majority of participants pursue Employment through Long-Term Services track.

Figure 3B-4. Track Selection of VR&E Participants by Cohort as of end of FY 2016



Source: Administrative Data, FY 2016

Employment through Long-Term Services track provides services that include career counseling, case management, employment planning, training or education, VHA-sponsored medical or dental care, job-placement assistance, and other supportive services. Given that most Veterans in the VR&E program

require significant support and re-training to obtain a suitable job, it is not surprising that Employment through Long-Term Services is the most widely used employment track.

The second most common track is Track 2, Rapid Access to Employment. The Rapid Access to Employment track assists Veterans with disabilities that already have the skills to be competitive in the job market and desire immediate employment. Given the nature of this track and the fact that many Veterans seeking services from VR&E require significant support, including additional training and education, it small proportion – less than 10 percent – of cohort members pursue this track. However, for those that do pursue this track, it is expected that the majority achieve rehabilitation much earlier than Veterans in Employment through Long-Term Services group.

A small proportion of cohort members are in an Independent Living program (Track 5). The goal of the Independent Living program is to assist Veterans with disabilities to enable their activities of daily living in order to live as independently as possible in their homes and communities, as well as increase their potential to return to work. For some Veterans pursuing a program, a subsequent goal may be to find employment through one of the four VR&E employment tracks, once they have successfully completed their Independent Living program. However, for most participants in Track 5, especially so for those with the most serious impairments, the ultimate goal is to live as independently as possible. Tracks 1 and 3 have the smallest percentage of enrollment. Track 1 is only for Veterans looking to return to their previous job after active duty, which limits the number of eligible Veterans. Track 3 is for Veterans looking for assistance in self-employment.

## Receipt of Other Benefits

Two additional background characteristics the Congressional legislation requires to be measured are the number of medical visits VR&E participants make on average during the year – the average number of visits made to VA medical facilities during the year and the average number of visits made to non-VA medical facilities

during the year. Many Veterans utilize the health care benefits offered by the Veterans Health Administration (VHA), which manages the largest health care system in the country.<sup>15</sup> Table 3B-5 reveals that, on average, cohort members visited a VA medical facility twice as often as they visited a non-VA medical facility, averaging 13 visits to a VA medical facility during the past 12 months versus only

On average, VR&E participants **use VA-provided health care services** more frequently than the overall Veteran population.

A higher proportion of cohort members who have achieved rehabilitation have **mortgage loans** that are insured by VA, relative to persisting and discontinued cohort members.

7 visits to a non-VA medical facility during the same time frame. Relative to the first two cohorts, Cohort III (FY 2014) reported a higher number of average visits to both VA and non-VA medical facilities in the past 12 months. Examination of these data by participation status also reveals that discontinued participants report a higher number of average visits to a VA medical facility than persisting participants or

<sup>15</sup> <http://www1.va.gov/health/aboutVHA.asp>

participants who have achieved rehabilitation across all three cohorts.

With an average of 13 visits a year, cohort members appear to use VA-provided health care services more frequently than the overall Veteran population, which is not surprising given they have a service-connected disability. For the Veteran population overall, a total of 9.1 million enrollees made a total of 92.4 million outpatient visits to VHA-managed facilities in FY 2014, yielding an average of about 12.7 visits for the year.<sup>16</sup> Additionally, 100 percent of all Chapter 31 participants are eligible to receive VHA health care, services, and treatment in accordance with VA statute 3104 and VHA Directive 1182 as necessary to develop, carry out, and complete their rehabilitation programs.

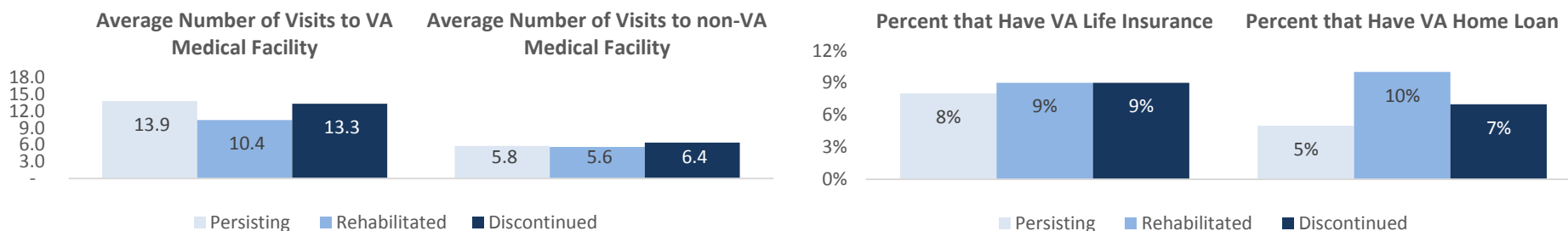
The study-framing legislation asks for information on the types of other VA benefits received by cohort members. Using administrative data collected by VA, Figure 3B-5 reports the number and percentage of cohort members who have life insurance through VA and have VA-insured mortgage loans. The table reveals that, for all three cohorts, less than ten percent of participants have VA life insurance policies as of FY 2016. The table also indicates a higher proportion of rehabilitated participants have mortgage loans that are insured by VA compared to persisting or discontinued participants.

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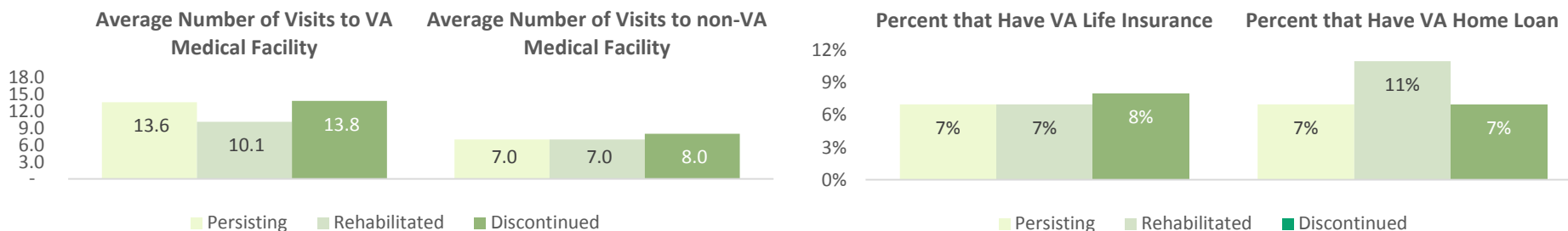
<sup>16</sup> Based on data prepared by the National Center for Veterans Analysis and Statistics available at [http://www1.va.gov/vetdata/docs/Utilization/VHASTats\\_2015.xlsx](http://www1.va.gov/vetdata/docs/Utilization/VHASTats_2015.xlsx)

Figure 3B-5. Receipt of Other Benefits by Participation Status as of end of FY 2016, by Cohort

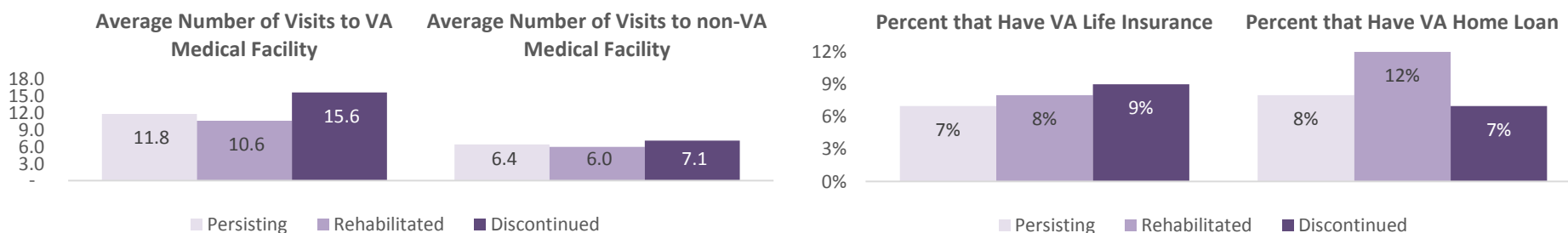
**Cohort 1 FY 2010 (n=10,791)**



**Cohort 2 FY 2012 (n=15,396)**



**Cohort 3 FY 2014 (n=21,082)**



Source: FY 2016 VBA Administrative and VR&E Survey Data

## Receipt of Education and Training

Figure 3B-6 provides information on the educational pursuits and achievements of cohort members since beginning their rehabilitation plans. For all three cohorts, a larger percentage of persisting participants are enrolled in an institution of higher learning (IHL) at some point during the past 12 months, relative to participants who have achieved rehabilitation or discontinued from the program.

This finding is not surprising given the fact that the majority of VR&E participants are in Employment through Long-Term Services track, which is the track pursued when additional training or education is needed. A subsistence allowance is paid each month when pursuing a training or education program and is based in part by the rate of attendance (e.g., full-time or part-time). In 2011, based on Public Law 111-377, VR&E increased the

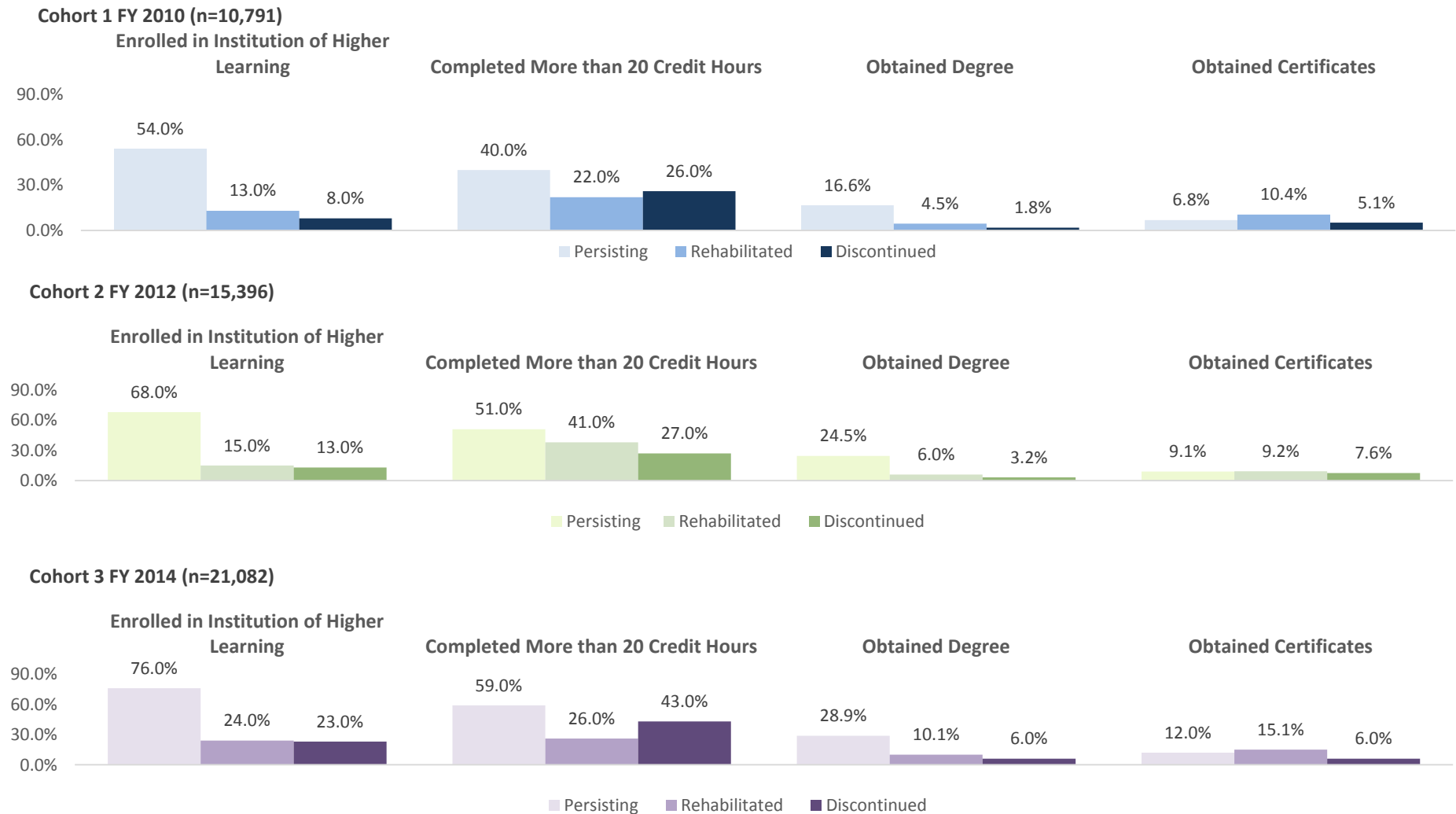
A higher proportion of persisting Veterans were enrolled in an **institution of higher learning** in the past 12 months, relative to participants who have achieved rehabilitation and have discontinued.

amount of the subsistence allowance to be similar to the monthly allowance paid under the Post-9/11 GI Bill only for Veterans eligible for Chapter 33 benefits, this resulted in an increase of VR&E participants over time. Further examination of Figure 3B-6 indicates that of those cohort members who were enrolled in an IHL at some point during FY 2016 a larger proportion of more recent participants reported completing more than 20 academic credits in the past year, which likely means these cohort members were in school for at least 2 semesters during the year and attending on a full-time basis.

Figure 3B-6 also reports the proportion of cohort members who obtained a degree or certificate during the past 12 months. Relative to Cohorts II and III, a smaller percentage of Cohort I reported that they obtained a degree or certificate over the past 12 months. However, this finding is not surprising given that Cohort I members have been receiving VR&E services for up to 6 years and have had a longer period of time to complete training pursued through the Employment through Long-Term Services track. The table also reveals that, for all three cohorts, fewer discontinued participants have obtained a degree or certificate as of FY 2016 relative to persisting or rehabilitated participants.



Figure 3B-6. Education or Training Characteristics of VR&E Participants by Participation Status as of end of FY 2016, by Cohort



Source: FY 2016 VBA Administrative and VR&E Survey Data

### 3.C. Program Outcomes (Rehabilitation and Discontinuation)

For each cohort, some members are continuing to pursue the objectives outlined in their rehabilitation plans. Some members have successfully achieved rehabilitation, while other members have discontinued their rehabilitation plans.

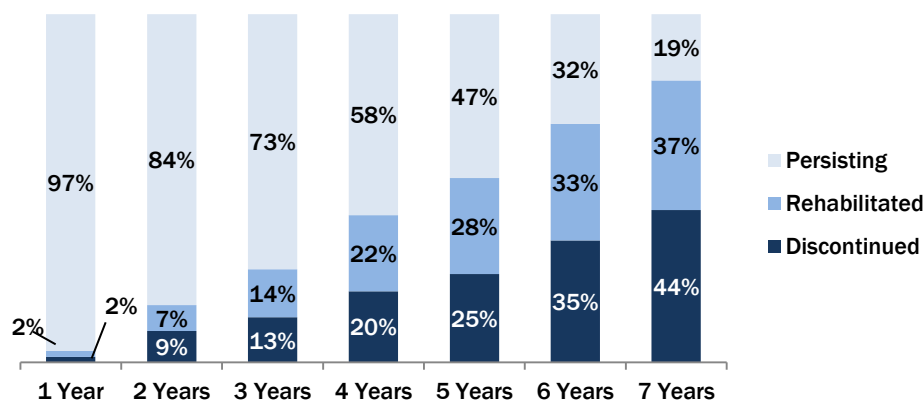
#### Descriptive Trends

As Veterans work to complete the objectives of their rehabilitation plans, it is expected that a larger share of cohort members will successfully achieve rehabilitation over time. Similarly, the number (and thereby the percentage) of persisting participants will decrease over time as well. For each cohort, Figure 3C-1 presents the yearly percentage of cohort members who are persisting in their plans, have successfully achieved rehabilitation, or discontinued services. Because cohort members can reapply for VR&E services after exiting the program throughout their period of eligibility, the annual percentages displayed in the figure were calculated using the program participation status (i.e., rehabilitated, discontinued, and persisting) as of the end of each fiscal year.

Figure 3C-1 illustrates the increases in the number of rehabilitations and discontinuations over time. Over 7 years, the percent of Veterans that achieved rehabilitation in Cohort I (FY 2010) reached 37 percent. Likewise, Cohort I (FY 2010) discontinuations also witnessed a steady increase within this period of up to 44 percent. As rehabilitation and discontinuation rates increase over time, the percent of Veterans persisting within the program is subject to a steady decrease.

Figure 3C-1. Cumulative Percentage of VR&E Participants who have Rehabilitated, Discontinued, or are Still Persisting by Cohort as of each Study Year

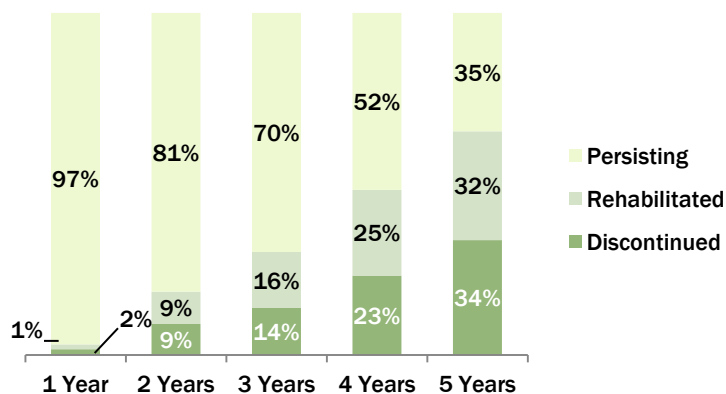
Cohort I (FY 2010) (n=10,791)



Within 7 years of beginning the VR&E program:

- 37% of Cohort I members have achieved rehabilitation.
- 19% are still persisting in the steps of their rehabilitation plans.
- 44% have discontinued from the program.

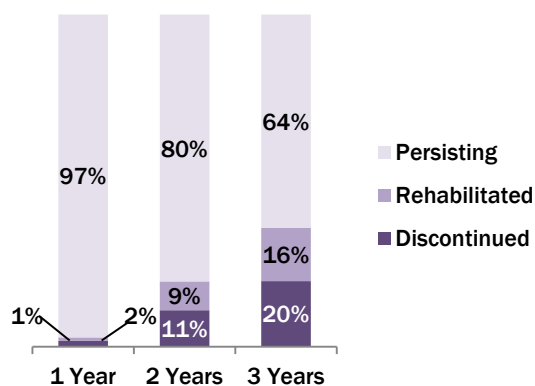
Cohort II (FY 2012) (n=15,396)



Within 5 years of beginning the VR&E program:

- 32% of Cohort II members have achieved rehabilitation.
- 35% are still persisting in the steps of their rehabilitation plans.
- 33% have discontinued from the program.

Cohort III (FY 2014) (n=21,082)



The majority (64%) of Cohort III members are still persisting in the VR&E program within 3 years of beginning services. 20% of Veterans have discontinued from the program and 16% are rehabilitated.

Note: Percentages may not sum to 100% due to rounding.

Source: Administrative Data

When comparing Cohort I and II at the five-year mark, Cohort II has seen more outcomes than Cohort I. The proportion of Cohort II members pursuing the objectives of their rehabilitation plans has decreased from 97 percent during year 1 to about 35 percent of the cohort by the end of year 5 compared to 47 percent of Cohort I in the same time period. Meanwhile, the percentage of Cohort II members who have successfully achieved rehabilitation increased from 1 percent to 32 percent over the same 5-year period compared to 28 percent of Cohort I. Similar to the increase observed among those who have achieved rehabilitation, the proportion of Cohort II members who discontinued also increased from 2 percent in year 1 to 34 percent in year 5. Cohort I only saw 25 percent of Veterans discontinue from the program in the first 5 years.

**Veterans in all three cohorts exit the VR&E program at similar rates over time.**

Further examination of Figure 3C-1 reveals similar rates of change over time across the cohort groups. For all three cohorts, with 97 percent of cohort members still persisting in their plans within the first year of receiving services, only a very small percentage exited the program within the first year. However, the percentage exiting the program grew by the end of year 3. Cohort III had the largest number of Veterans

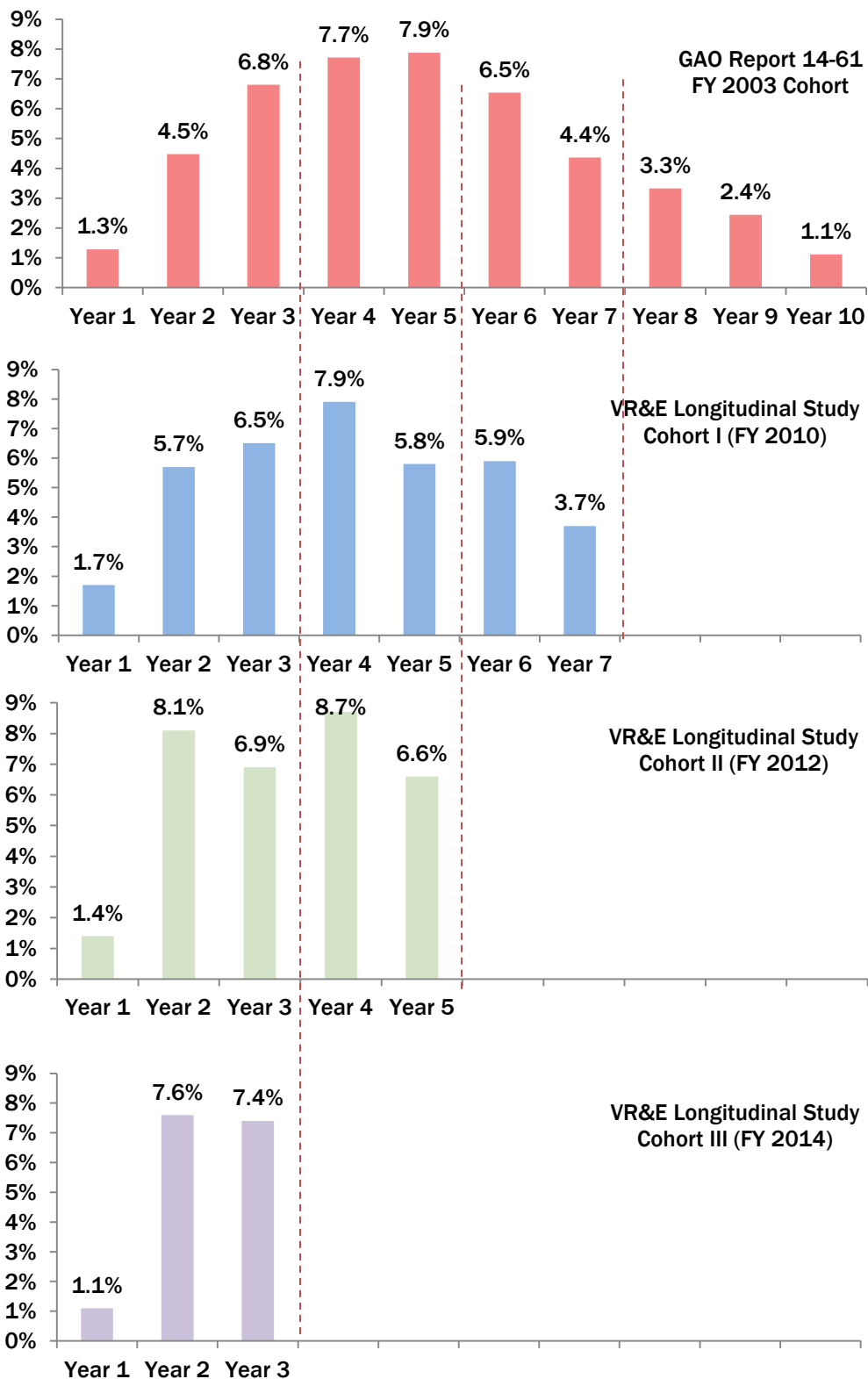
leave the program by year 3 at 36 percent (16 percent rehabilitated and 20 percent discontinued). Cohort I (27 percent) and Cohort II (30 percent) saw lower percentages of Veterans exiting the program at year 3. The rehabilitation and discontinuation outcomes at year 5 indicates that Cohort II members have seen more outcomes (32 percent of Veterans have rehabilitated and 34 percent have discontinued) than Cohort I (28 percent and 25 percent respectively). Descriptions of Veteran discontinuances are provided through Administrative Data. Over 70 percent of discontinued Veterans (not shown) did not pursue VR&E services after becoming eligible or completing an application. The next largest group of discontinuances (9 percent) is from Veterans who are considered employable, but discontinued from the program.

The experience of Cohort I, as illustrated in Figure 3C-1, indicates that it takes between 4 and 5 years for half of the cohort to exit the VR&E program, and that within 7 years of program entry less than 20 percent of participants are still actively persisting in the program, and have not reached rehabilitation or were discontinued. A study conducted by the U.S. Government Accountability Office (GAO) of the VR&E program revealed that, on average, it took Veterans who began an employment plan of services in 2003, 4 years and 7 months to successfully rehabilitate.<sup>17</sup> The GAO study further reported that while almost half of those who have successfully achieved rehabilitation did so within 3 to 5 years of applying for services, about one-third (37 percent) of those who achieve rehabilitation took 6 to 10 years. As indicated in Figure 3C-2, current findings from the three cohorts closely parallel the GAO findings.

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<sup>17</sup> <http://www.gao.gov/assets/670/660160.pdf>

Figure 3C-2. Annual Percentage of VR&E Longitudinal Study Participants and GAO 14-61 Study Participants who Achieved Rehabilitation within 5 Years of Program Start



Source: <http://www.gao.gov/assets/670/660160.pdf> and Administrative Data

## Factors that Contribute to Rehabilitation

Multivariate regression analysis is used to identify the factors that affect program outcomes of rehabilitation and discontinuation. Detailed results of the regression analyses are presented in Appendix K. Summary results listing the significant factors that contribute to achieving rehabilitation and the time to rehabilitation are presented in Table 3C-1. For these findings, it is important to note that the regression analyses examined factors associated with successful rehabilitation within the first 7, 5, and 3 years for the respective cohorts after beginning a VR&E plan of services. Therefore, the results identify factors related primarily to early rehabilitation, and may not be representative of the full range of factors associated with successful rehabilitation during the full 12-year eligibility period in which Veterans can utilize VR&E services.

Across all cohorts, several factors are associated with achieving rehabilitation (first panel of Table 3C-1). These factors include having at least some college education at program entry, earning a higher salary prior to VR&E enrollment, serving a greater number of months on active duty, and having served in the Gulf War II era compared to Veterans from other service periods. Several factors decrease the probability of rehabilitation, including having a serious employment handicap and having a higher disability rating. Although not surprising, these data confirm that Veterans with complex disabilities, multiple disabilities, or other significant barriers to employment take longer to achieve rehabilitation.

The results of the regression analyses indicate that the primary factors associated with successful rehabilitation by the end of FY 2016 are also the strongest predictors of the amount of time it takes to achieve rehabilitation (second panel of Table 3C-1). For example, across all cohorts, participants who served in the Gulf War II period tend to reach rehabilitation faster than Veterans who served in other periods. Length of service on active duty is also associated with a shorter period to rehabilitate, other things equal. Receiving a subsistence allowance for college is associated with a longer rehabilitation period, as is having a high disability rating and a serious employment handicap.

Table 3C-1. Factors that Contribute to Achieving Rehabilitation and Time to Rehabilitation as of end of FY 2016

Explanatory Variable	Achieving Rehabilitation <sup>1</sup>			Time to Rehabilitation <sup>2</sup>		
	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Employment through Long-Term Services track (compared to Independent Living)	-	-	-	+	+	+
Other employment tracks (compared to Independent Living)	-	-	-	+	+	+
Serious employment handicap (SEH)	-	-	-	+	+	+
Disability rating	-	-	-	+	+	+
Receiving subsistence allowance for a degree program	-	-	-	+	+	+
Some college or higher at program entry	+	+	+	-	-	-
Pre-rehabilitation salary	+	+	+	-		
Male <sup>3</sup>		+				
Age <sup>3</sup>					-	
Length of military service	+	+		-	-	-
Served in Gulf War I era				-	+	
Served in Gulf War II era	+	+	+	-	-	-
Officer status		+			-	

<sup>1</sup> The effects are based on a logistic regression estimation for cohort members who have not discontinued, where the dependent variable is a dichotomous variable where 1 indicates rehabilitation and 0 indicates persisting program participation.

<sup>2</sup> The effects are based on a survival regression estimation where the dependent variable is number of days between the date of cohort entry and the date of rehabilitation (cohort members are removed from the risk set once they discontinue).

<sup>3</sup> These factors were not significant in FY 2015

Source: Regression Analysis of FY 2016 VBA Administrative and VR&E Survey Data

In addition, having a serious employment handicap, having a higher disability rating, and receiving a subsistence allowance for participating in a training program are associated with relatively longer rehabilitation. In contrast, having at least some college education at program entry, serving a greater number of months on active duty, and serving in the Gulf War II era are associated with rehabilitating sooner. The only factor significant in FY 2015 that was not significant in FY 2016 was primary mental health diagnosis, which has a significant, positive affect on Cohorts II and III in achieving rehabilitation.

## Factors that Contribute to Discontinuation

Table 3C-2 summarizes the significant factors that contribute to discontinuation. Generally, the main factors that are associated with successful rehabilitation are also related to discontinuation by the end of FY 2016, but the effect is in the opposite direction.

For all three cohorts, discontinuation is associated with participation in an employment track. Veterans in the Employment through Long-Term Services track or one of the three other employment tracks (Re-Employment, Rapid Access to Employment, and Self-Employment tracks) are more likely to discontinue their plans than those in the Independent Living track. Other factors associated with higher likelihood of discontinuation for all cohorts include the Veteran's disability rating, being older, having a mental health condition as the primary diagnosis, and being male.

For Veterans in the FY 2010 and FY 2014 cohorts, factors that result in placement in an Extended Evaluation are also associated with discontinuation from the program. Veterans are placed in Extended Evaluation to determine if the achievement of a vocational goal is reasonably feasible based on both the service and non service-connected disabilities.

Factors associated with a reduced likelihood of discontinuing for all cohorts include receiving a subsistence allowance for participating in a training program, having at least some college education at program entry, having served a greater number of months on active duty, and serving in either of the Gulf War eras.

There were no correlating factors found to be significant when compared to FY 2015. However, there were some changes within each factor found in the table below. For Cohort I, a serious employment handicap and a primary health diagnosis are now significant positive factors that contribute to discontinuation while serving in Gulf War II era is now a significant negative factor. For Cohort II, factors that result in placement in an Extended Evaluation is no longer a significant factor for discontinuation while a primary mental health diagnosis is now a significant factor that contributes to discontinuation. For Cohort III, male and age both are positive factors that contribute to discontinuation while having a serious employment handicap is now a negative factor.



Table 3C-2. Factors that Contribute to Discontinuation as of end of FY 2016

Explanatory Variable	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Factors that result in placement in an Extended Evaluation (compared to being placed in a program track)	+		+
Employment through Long-Term Services track (compared to Independent Living)	+	+	+
Other employment tracks (compared to Independent Living)	+	+	+
Serious employment handicap (SEH)	+		-
Male	+	+	+
Age	+	+	+
Disability rating	+	+	+
Receiving subsistence allowance for a degree program	-	-	-
Some college or higher at program entry	-	-	-
Pre-rehabilitation salary	-		
Primary mental health diagnosis	+	+	+
Length of military service	-	-	-
Served in Gulf War I era	-	-	-
Served in Gulf War II era	-	-	-
Officer status	-		

Note: The effects are based on a logistic regression estimation where the dependent variable is a dichotomous variable, where 1 indicates discontinuation and 0 indicates persisting program participation.

Source: Regression Analysis of FY 2016 VBA Administrative and VR&E Survey Data

### 3.D. Employment and Standard of Living Outcomes

In this section, descriptive information about the employment and standard of living outcomes experienced by cohort members is presented. Since only a limited amount of information on VR&E post-program outcomes is available through VBA administrative files, the main source of data used to measure outcomes is the study.

The primary objective of the longitudinal study of the VR&E program is to determine the long-term post-program outcomes associated with Veterans who establish a plan of services. Because the main focus of the longitudinal study is on long-term outcomes experienced by VR&E participants after exiting the program, the discussion primarily concentrates on the outcomes experienced thus far by cohort members who have achieved rehabilitation and who have discontinued.

#### Employment and Standard of Living Outcomes:

- Current and past year employment rate
- Annual earnings
- Annual individual and household income
- Unemployment compensation rate
- Home ownership

Figure 3D-1 presents summary statistics for employment and standard of living outcomes of interest for all three cohorts. When interpreting the findings presented in this section, it is important to note that data across cohorts are not comparable given the three cohorts began a rehabilitation plan at different points in time. Hence, a larger proportion of cohort members have exited the program for the earlier

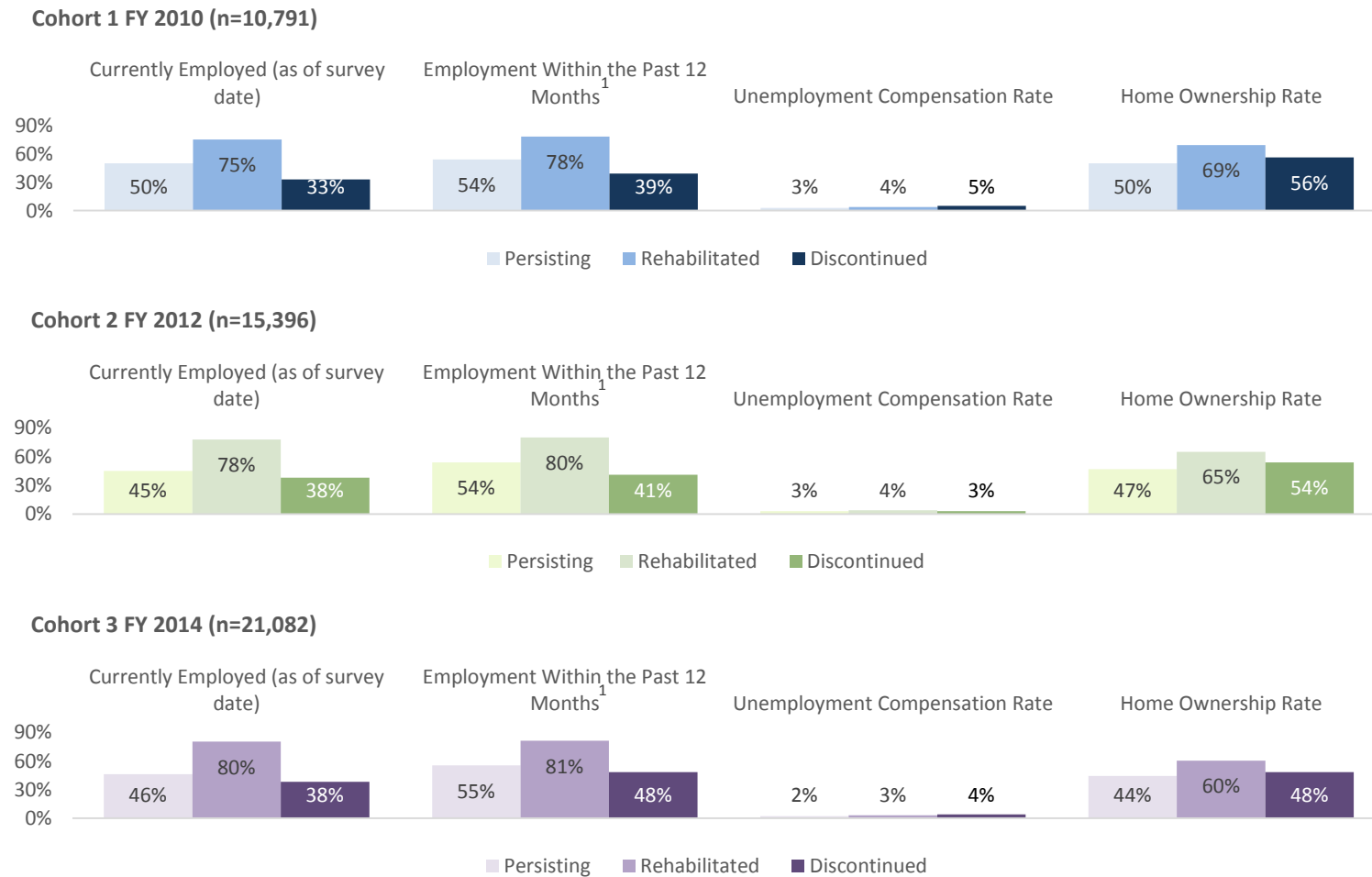
Employment and standard of living outcomes among cohorts improve over time as VR&E participants have more time to complete training and enhance their economic opportunities.

cohorts. As such, one would expect employment and standard of living outcomes to be better for earlier cohorts versus newer cohorts. The data presented in this section does in fact confirm that cohort outcomes improve over time. Cohort I has had more time to complete training and enhance their economic opportunities, relative to Cohorts II and III, and similarly Cohort II has had more time than Cohort III. Hence, it is not surprising that Cohort I reports higher employment rates, annual earnings, annual income amounts, and home ownership rates than Cohorts II and III, and that Cohort II has better outcomes than Cohort III.

#### Employment and Standard of Living Outcomes

Examination of the findings in Figure 3D-1 reveals participants who have achieved rehabilitation have substantially better employment and standard of living outcomes than those who discontinued and those who are still persisting in their plans. For all three cohorts, Veterans who have achieved rehabilitation are significantly more likely to be employed than discontinued Veterans. In fact, the employment rates for rehabilitated Veterans are double that of Veterans who discontinued the program.

Figure 3D-1. Employment and Standard of Living Outcomes by Cohort (in %)



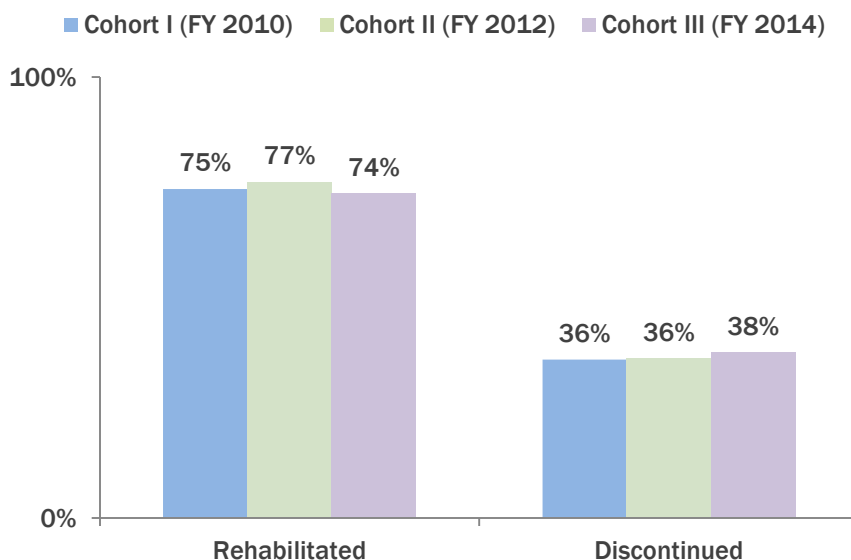
Note: Averages and percentages are based on survey data that has been weighted up to reflect the cohort population.

<sup>1</sup> Past employment rate is defined as the percentage of cohort members who reported working at any point in the past 12 months (including working currently as of the survey date).

Source: VR&E FY 2016 Survey Data

Only slightly more than one-third of discontinued participants in all three cohorts reported being currently employed at the time of the survey, and between 39 percent (Cohort I) and 48 percent (Cohort III) reported being employed during the past 12 months. However, among participants who have achieved rehabilitation in all three cohorts, at least three-quarters reported being currently employed almost four-fifths (~80 percent) reported employment during the past 12 months. Furthermore, Figure 3D-2 shows that among Veterans who reported being currently employed, about three-quarters of those who achieved rehabilitation indicated they were employed in a job that matches or somewhat matches their training provided by VR&E, compared to less than 40 percent of those who discontinued.

**Figure 3D-2. Percentage of VR&E Participants who Achieved Rehabilitation or Discontinued and are Employed in a Job that Matches or Somewhat Matches VR&E Training, as of the end of FY 2016**

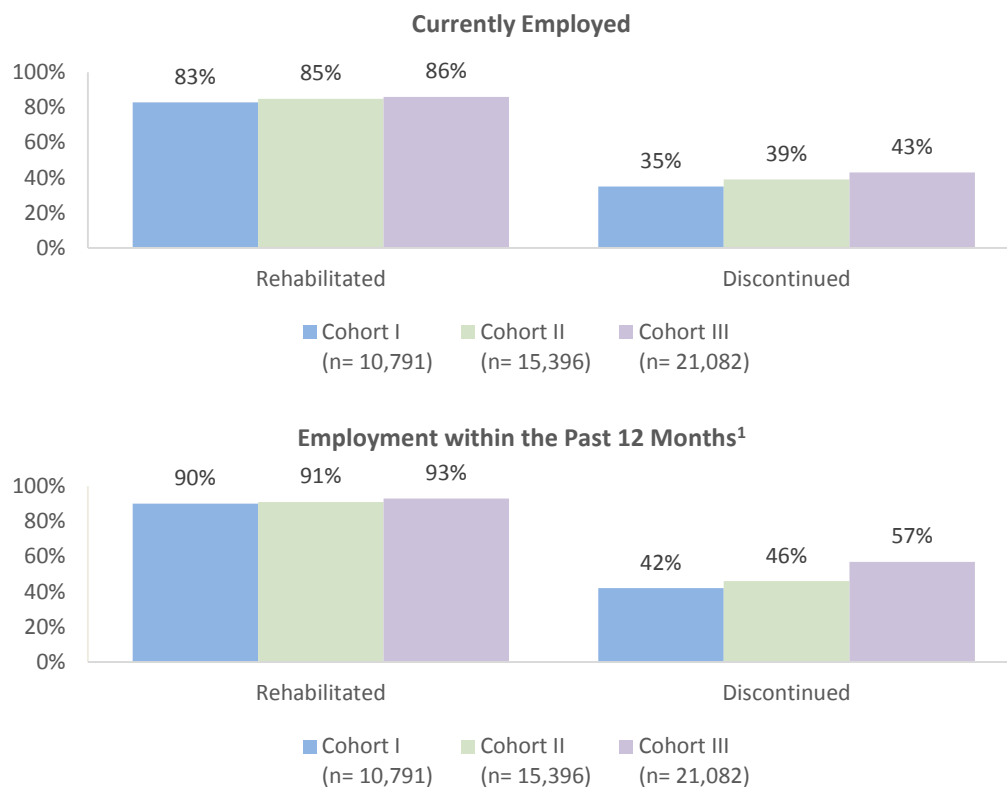


Source: FY 2016 VBA Administrative and VR&E Survey Data

It is expected that not all rehabilitated participants will report being employed. Participants that successfully complete the program include Veterans who have achieved rehabilitation from the Independent Living track. Since the goal of the Independent Living track is to live independently in their community and not to necessarily find employment

As expected, employment rates among Veterans who exit from an employment plan are higher than employment rates among all Veterans who achieve rehabilitation. As shown in Figure 3D-3, more than four-fifths of Veterans who achieved rehabilitation from an employment plan were currently employed at the time of the survey and more than 90 percent were employed within the past 12 months. It is not expected that all participants who achieve rehabilitation from an employment plan will report being employed given some employable Veterans elect to pursue further education after successfully completing their rehabilitation plans instead of immediate employment.

**Figure 3D-3. Employment Rates for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, as of end of FY 2016**



Note: Averages and percentages are based on survey data that has been weighted to reflect the cohort population.

<sup>1</sup> Past employment rate is defined as the percentage of cohort members who reported working at any point in the past 12 months (including working currently as of the survey date).

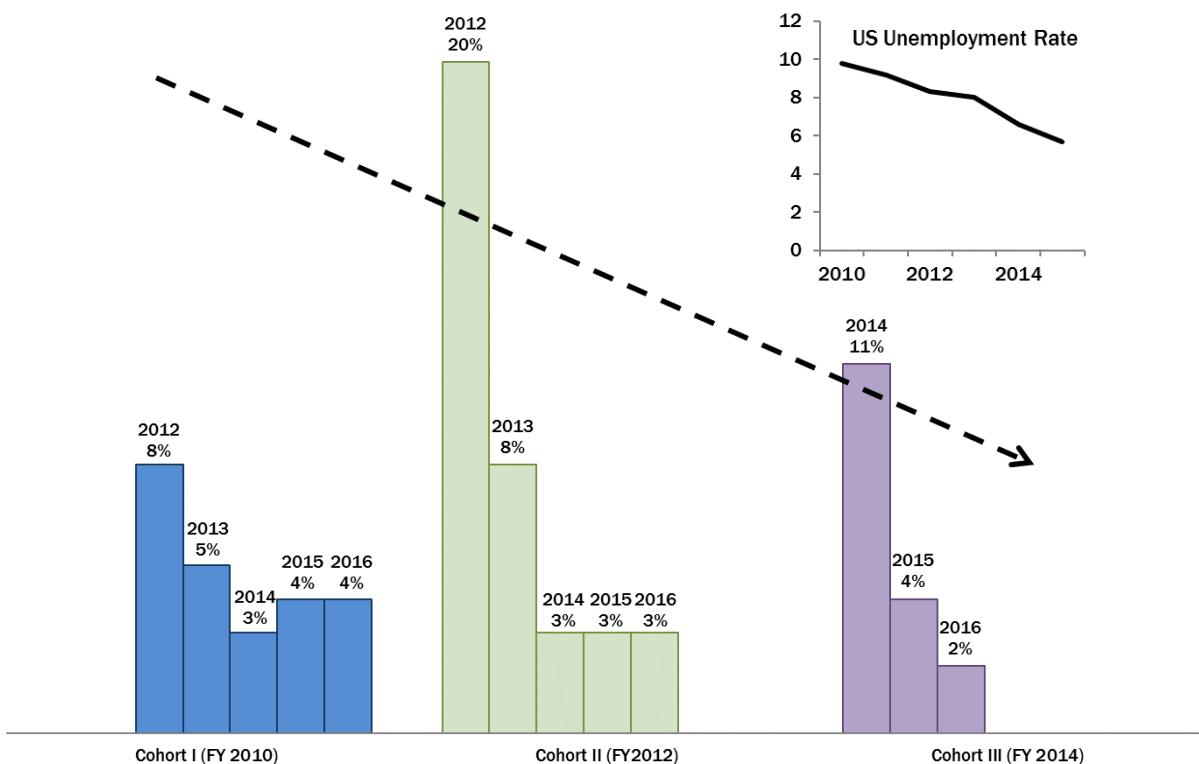
Source: VR&E FY 2016 Survey Data

Figure 3D-1 also shows a larger percentage of those who have successfully completed the program reported owning their principal residence, relative to those who discontinued. For rehabilitated Veterans in Cohort I (69 percent) and II (65 percent), the rate of homeownership is higher than the

United States (63.6 percent) population.<sup>18</sup> Cohort III is slightly less (60 percent) however those Veterans have had less time in a rehabilitated status.

Figure 3D-1 also indicates that only a small percentage of cohort members reported receiving unemployment benefits at some point during the past 12 months. Further examination of the unemployment benefits usage rate over time reveals a pattern of less dependence over time as participants have more time to complete the VR&E program and improve their employment opportunities. As shown in Figure 3D-4, the decline in this rate over time may also be affected by the fact that the overall U.S. economy has improved in recent years, as evidenced by the decline in the overall U.S. unemployment rate since 2010.

**Figure 3D-4. Unemployment Benefits Usage Rate of VR&E Participants Over Time, by Cohort**



Source: FY 2016 VBA Administrative and VR&E Survey Data and 2017 and Department of Labor, Labor Force Statistics from the Current Population Survey 2017

<sup>18</sup> U.S. Census Bureau. Quarterly Residential Vacancies and Homeownership, First Quarter 2017. Table 4SA. Accessed June 13, 2017. <https://www.census.gov/housing/hvs/files/currenthvspress.pdf>  
Labor Force Statistics from the Current Population Survey, Accessed June 14, 2017.  
<https://data.bls.gov/timeseries/LNS14000000>

## Earnings and Income Outcomes

Given that participants who have achieved rehabilitation have substantially higher earnings than discontinued participants, it is not surprising to find that those participants also report higher individual and household annual incomes for the past 12 months, for all three cohorts. The median individual income for Veterans who have achieved rehabilitation is at least \$15,000 higher than that of discontinued Veterans. The median household income for participants who have achieved rehabilitation is at least \$24,000 higher than that of discontinued participants. Additionally, the median annual earnings of Veterans who have achieved rehabilitation in all three cohorts are higher than that of Veterans overall and the average American, based on data from the 2010 U.S. Census data.<sup>19</sup>

Participants who have achieved rehabilitation reported higher annual income amounts than discontinued participants – at least \$15,000 higher for individual income and at least \$24,000 higher for household income.

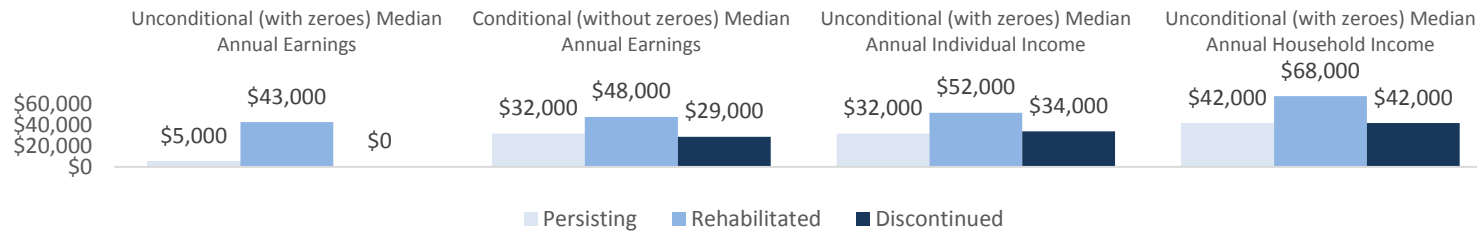
Participants who have achieved rehabilitation also earn substantially higher earnings over the past 12 months, relative to discontinued participants, which is largely due to more participants that have completed the program working. However, further examination of Figure 3D-5 indicates that when comparing the average annual earnings of only those cohort members who reported working, rehabilitated participants earned, on average, \$13,000 more than discontinued participants, for all three cohorts.

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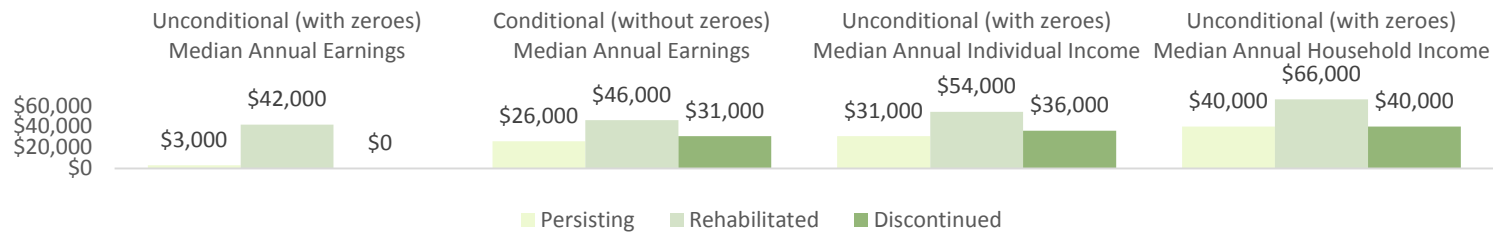
<sup>19</sup> [https://www.census.gov/how/pdf/census\\_veterans.pdf](https://www.census.gov/how/pdf/census_veterans.pdf)

Figure 3D-5. Earnings and Income Outcomes by Cohort

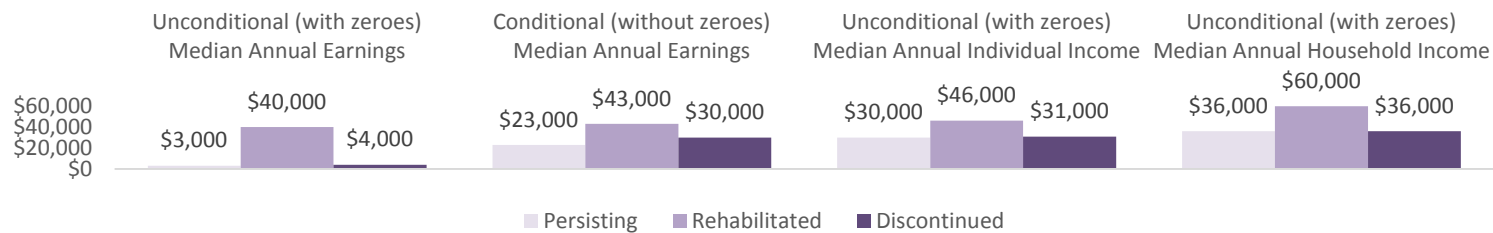
**Cohort 1 FY 2010 (n=10,791)**



**Cohort 2 FY 2012 (n=15,396)**



**Cohort 3 FY 2014 (n=21,082)**



Annual earnings is defined as the amount earned, before taxes and other deductions, in the past 12 months from all jobs or businesses. Hence, median annual earnings are reported only for Veterans in an employment plan. Veterans in an Independent Living plan or an Extended Evaluation are not included in the average earnings calculations given that employment is not a goal of those programs.

Annual income is defined as income received from all sources, before taxes, in the past 12 months, including earnings from a job, benefits received from government programs, and any retirement, pension, investing, or savings income from which regular payments are received.

Source: VR&E FY 2016 Survey Data



## Factors that Contribute to Employment and Earnings

Regression analyses are used to identify the factors that affect employment outcomes for those who have exited the program. Detailed results of the regression analysis can be found in Appendix K. It is important to note that the regression analyses related to employment outcomes (i.e., current employment rate and annual earnings) only include those Veterans who exited from an employment plan. Few Veterans who exit from an Independent Living plan report they are employed, since the goal of the plan is for participants to live as independently as possible within their families and communities. To enter an Independent Living plan, a vocational goal is not currently reasonably feasible. For similar reasons, Veterans who exit VR&E from an Extended Evaluation are excluded from the regression analysis. The purpose of an Extended Evaluation is to provide evaluative and rehabilitative services to improve the Veteran's rehabilitation potential, and determine whether a vocational goal is feasible. The goal of individuals who successfully complete a period of Extended Evaluation is to enter an employment or an IL plan of service.

Table 3D-1 presents the significant factors that contribute to employment and annual earnings for each cohort, as of FY 2016. For these findings, it is important to note that the regression analyses examined factors associated with employment outcomes within the first seven, five, and three years since program entry. Therefore, the results identify factors related to early post-program outcomes and may not be representative of the full range of factors associated with long-term post-program outcomes. It is also important to recognize that Cohort I has had more time to complete training and enhance their employment opportunities, relative to Cohorts II and III, and, similarly, Cohort II has had more time than Cohort III. Over time, as data collection continues and more cohort members exit the program, additional factors that are consistently significant across all three cohorts will likely emerge as predictors of employment and earnings.

Table 3D-1. Factors that Contribute to Employment Outcomes as of end of FY 2016

Explanatory Variable	Current Employment Rate <sup>1</sup>			Annual Earnings <sup>2</sup>		
	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Rehabilitation status (compared to discontinued)	+	+	+	+	+	+
Officer status	+			+	+	+
Other employment tracks (compared to Employment through Long-Term Services)				+		
Serious employment handicap (SEH)	-	-		-	-	
Male					+	
Age	-		-	-	-	-
Disability rating	-	-	-	-		
Receiving subsistence allowance for a degree program		+		+	+	
Pre-rehabilitation salary	+	+	+	+	+	+
Primary mental health diagnosis	-					
Served in Gulf War I Period <sup>3</sup>		+				
Served in Gulf War II Period <sup>3</sup>		+				
Length of military service	+			+	+	+
Earned a degree in past 12 months			+			
Number of dependents <sup>3</sup>				+		+

Note: Models include only Veterans who exited the program from an employment track. Veterans who exited from the Independent Living track or from an Extended Evaluation were excluded because few were employed.

<sup>1</sup> The effects are based on a logistic regression estimation where the dependent variable is a numeric variable falling between 0 and 1.

<sup>2</sup> The effects are based on a linear regression estimation where the dependent variable is a continuous variable.

<sup>3</sup> These factors were not significant in FY 2015

Source: Regression Analysis of FY 2016 VBA Administrative and VR&E Survey Data

As shown in Table 3D-1, several factors are consistently associated with employment across all cohorts, including program status, disability rating and salary prior to enrollment. As of FY 2016, Veterans who successfully rehabilitated from an employment plan were much more likely to be employed than those who discontinued their employment plan. Pre-enrollment salary is also positively associated with employment. Disability rating is negatively associated with employment, meaning that the higher the

disability rating of the Veteran, the less likely they were to be employed. Similarly, having a serious employment handicap reduces the likelihood of employment for those in the FY 2010 and FY 2012 cohorts.

**Achieving rehabilitation is the dominant factor associated with employment. Veterans who achieve rehabilitation are much more likely to be employed than those who discontinue. Those with higher salaries prior to enrollment tend to be employed at higher rates than their counterparts.**

For the FY 2010 and FY 2014 cohorts, age was associated with a reduced likelihood of employment, other things equal.

Table 3D-1 also summarizes the significant factors that are associated with annual earnings among those Veterans who exited the program from an employment plan. Across all three cohorts, program status and officer status are the two most important factors related to annual

earnings. Veterans who successfully rehabilitated from an employment plan earned more over the past 12 months than those who discontinued their employment plans, and those who served as officers report higher annual earnings than those who served in the enlisted ranks. Length of service is also associated with higher earning across all cohorts. Controlling for all other factors, age is a significant predictor of lower earnings across all three cohorts.

## Factors that Contribute to Income

Multivariate regression is used to identify the factors that influence annual income for those who have exited the program. Detailed results of the regression analyses can be found in Appendix K. Individual income was defined in the survey as the gross income VR&E participants received from all sources before taxes. These sources include earnings from a job, benefits received from government programs, and retirement, pension, investing, or savings income from which Veterans receive regular payments. Because income includes income from all sources, in addition to earnings from a job, and the fact that Veterans with a service-connected disability may be eligible to receive disability compensation, it is expected that the majority of those who exit to report positive income amounts regardless of their employment status. For this reason, all Veterans who exit from the VR&E program are included in the income regression analyses, including those who exit from an Independent Living plan or an Extended Evaluation.

Table 3D-2 summarizes the factors that are significantly related to annual individual and household income, as of FY 2016. Similar to the regressions for employment outcomes, these analyses examined factors associated with income within the first seven, five and three years

since program entry. It is important to recognize that the three cohorts have entered the study at different points in time, and have had varying amounts of time to complete their rehabilitation plans and enhance their employment opportunities. As more Veterans in the study improve their abilities to obtain and sustain employment, it is expected that the average income levels for these cohorts to increase over time (though this may not be a realistic expectation for the oldest or most disabled

**Program status and service as an officer are the two dominant factors related to both individual income and household income.**

Veterans within the sample). It is also expected those variables that are the strongest predictors of individual and household income across all cohorts to remain reliable predictors of these outcomes over the course of the 20-year study.

**Table 3D-2. Factors that Contribute to Income as of end of FY 2016**

Explanatory Variable	Individual Income			Household Income		
	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)	Cohort I (FY 2010)	Cohort II (FY 2012)	Cohort III (FY 2014)
Officer status	+	+	+	+	+	+
Rehabilitation status (compared to discontinued)	+	+	+	+	+	+
Other employment tracks (compared to Independent Living)	+			+		
Male	+	+	+			
Disability rating		+				
Age <sup>1</sup>		-			-	
Receiving subsistence allowance for participating in a training program <sup>1</sup>		+			+	
Some college or higher at program entry				+		+
Number of dependents				+	+	+
Pre-rehabilitation salary	+	+	+	+	+	
Length of military service	+	+	+	+	+	+

Note: Models include only Veterans who exited the program. The effects are based on a linear regression estimation where the dependent variable is a continuous variable.

<sup>1</sup> These factors were not significant in FY 2015

Source: Regression Analysis of FY 2016 VBA Administrative and VR&E Survey Data

Several additional factors are positively associated with individual income for all three cohorts. Being male, as well as the salary participants earned prior to enrollment, are both predictive of higher income levels. Additionally, Veterans' length of service is related to both individual and household income, which is expected, given that those with longer tenure are more likely to be eligible for military retirement pay.

Similar to the findings for individual income, the strongest predictors of household income are prior service as an officer, and program status (i.e., successful rehabilitation). The number of dependents is positively associated with household income across all cohorts, but is not a significant predictor of individual income. For the 2010 and 2014 cohorts, having at least some college experience prior to program entry is a significant predictor of household income.

Several factors that were significant in FY 2015 are not significant positive or negative factors that contribute to income in FY 2016. Those factors include serious employment handicap, served in Gulf War II era, and earned a degree in the past 12 months.

### 3.E. Participant Re-entries

Veterans may re-enter the VR&E program because of changes in their situations and re-entitlement. The nature of the VR&E program allows Veterans to reapply for VR&E and complete a new evaluation. Based on the results of this evaluation, the Veteran may re-enter the VR&E program and develop a plan of service designed to meet their new circumstances

A portion of VR&E participants from each of the three cohorts have chosen to re-enter the program after having previously discontinued or rehabilitated. Table 3E-1 displays the number of Veterans who have re-entered, by cohort and by prior status. The table shows that Cohort 1 has the largest number of Veterans who have re-entered from either status, likely because the members of this cohort have had the longest period—roughly 7 years—in which to do so. Since the number of re-entries appears to increase, at least in part, as a function of the length of time since initial enrollment, the number of re-entries from the FY 2012 and FY 2014 cohorts is expected to continue to rise. This is particularly true for Cohort III, since it is much larger than the other two cohorts.

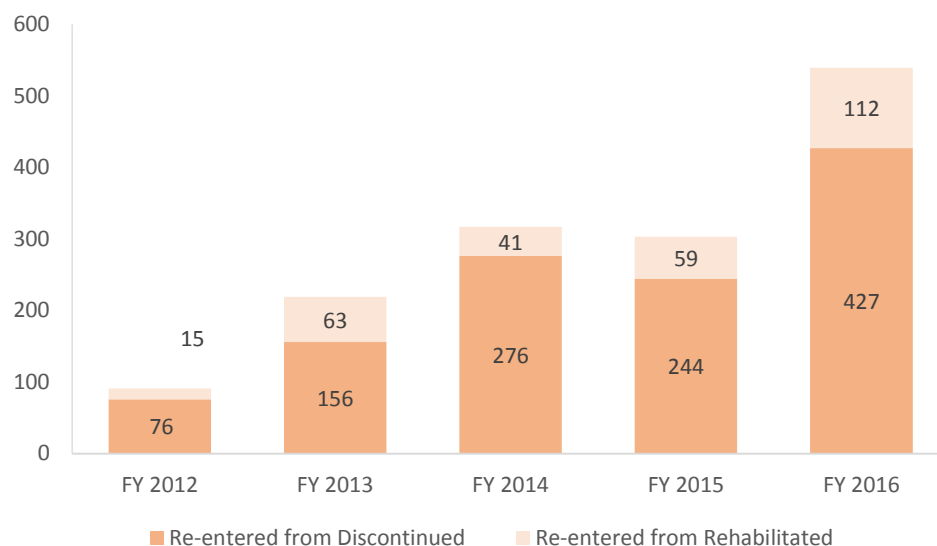
**Table 3E-1. Number of Veterans who Re-entered the VR&E Program after Discontinuation or Rehabilitation, by Cohort**

Cohort	Re-entered after Discontinuation	Re-entered after Rehabilitation
<b>FY 2010 Cohort</b>	544	161
<b>FY 2012 Cohort</b>	402	93
<b>FY 2014 Cohort</b>	220	37
<b>Total</b>	<b>1,166</b>	<b>291</b>

Source: Administrative Data

Figure 3E-1 depicts the number of re-entries per year. The largest numbers of re-entries into VR&E occurs in FY 2016. During the study period, 1,457 Veterans have re-entered the program, either from a discontinued or rehabilitated status. Of those Veterans, 37 percent re-entered during FY 2016. This result is expected as the number of re-entries has increased in each year except for FY 2015. This is also due to the larger number of overall Veterans in Cohort III. It is safe to expect this trend to continue for the next few years at least.

**Figure 3E-1. Number of VR&E Participants who Re-entered the Program from a Discontinued or Rehabilitated Status (all Cohorts Combined)**



Note: In FY 2011, eight participants Re-entered from Discontinued status and two Re-entered from Rehabilitated status.

Source: Administrative Data

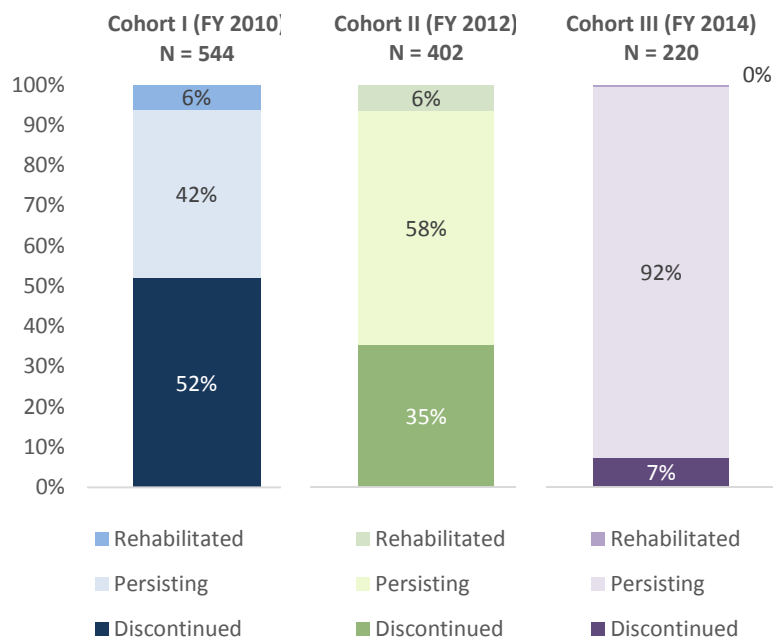
The demographic profile of Veterans who re-enter the VR&E program are somewhat different from the cohort population of this report. In general, when compared to those who never re-entered the program, Veterans who re-enter the program:

- Have a higher combined disability rating (69 percent versus 64 percent);
- Are more likely to have a SEH (81 percent versus 75 percent); and
- Have a slightly higher probability of their primary diagnosis being PTSD (32 percent versus 29 percent).

Figure 3E-2 displays the status, as of FY 2016, of Veterans who re-entered the program after discontinuing. For Veterans in Cohort I, the majority (52 percent) of those who re-entered after a discontinuation had again discontinued as of FY 2016—meaning they had discontinued twice. Among Veterans in Cohort II who had re-entered after discontinuing, the majority (58 percent) were still persisting. Among Veterans from Cohort III—the most recent in the study—a very large majority of those who re-entered after discontinuing (92 percent) were still persisting. A relatively small share of

Veterans from each cohort had reached rehabilitation after re-entering from a discontinued status. Moreover, the percent of rehabilitations among reentries from the FY 2010 cohort (6 percent) was no larger than the share of rehabilitations among re-entries from the 2012 cohort (6 percent). This is a counterintuitive result, since there may be reasonable expectations for successful rehabilitations to increase with time.

**Figure 3E-2. FY 2016 Status of Veterans who Re-entered the VR&E Program after Discontinuation, by Cohort**



Source: Administrative Data

Figure 3E-3 displays the status, as of FY 2016, of Veterans who re-entered the program after successfully rehabilitating at an earlier stage. Veterans can re-enter the program for several reasons.

For Veterans found to be rehabilitated, a Veteran can re-enter the program if they have a service-connected disability and either;

- A Veteran's service-connected disability has worsened and it is determined that the effects of the service-connected disability precludes him or her from performing the duties of the occupation for which the Veteran previously was found rehabilitated; or
- Occupation for which the Veteran previously was found rehabilitated under Chapter 31 is found to be unsuitable based on the Veteran's specific employment handicap and capabilities.

For Veterans rehabilitated from an Independent Living track, a Veteran can re-enter if they either:

- The Veteran's condition has worsened and as a result the veteran has sustained a substantial loss of independence; or

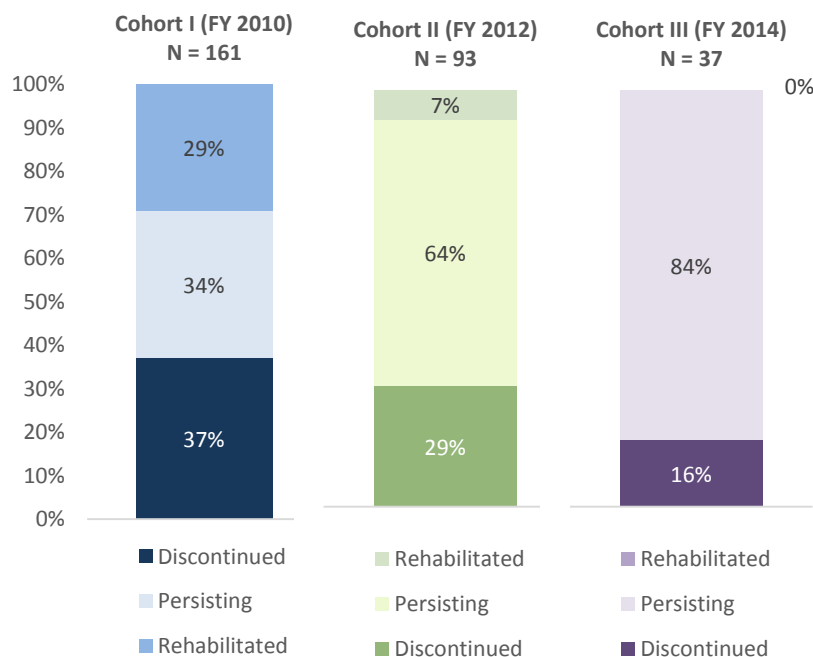
- Other changes in the Veteran’s circumstances have caused a substantial loss of independence.

A finding of rehabilitation to the point of employability by VA may be set aside during a period of employment services if:

- “The Veteran has a compensable service-connected disability and either;”
- “Current facts, including any relevant medical findings, establish that the Veteran’s service-connected disability has worsened to the extent that the effects of the service-connected disability considered in relation to other facts precludes him or her from performing the duties of the occupation for which the Veteran previously was found rehabilitated; or”
- “The occupation for which the Veteran previously was found rehabilitated under Chapter 31 is found to be unsuitable on the basis of the Veteran’s specific employment handicap and capabilities.”<sup>20</sup>

For Veterans in Cohort I, more than one-fourth (29 percent) had regained rehabilitated status, about one-third (34 percent) were persisting, and 37 percent discontinued. With regard to the more recent cohorts, the large majority of Veterans who re-entered after rehabilitation were persisting (64 percent in Cohort II, and 84 percent in Cohort III). The pattern emerging from Figure 3E-2 is that the likelihood of rehabilitation increases over time among Veterans who have re-entered the program after a prior rehabilitation.

**Figure 3E-3. FY 2016 Status of Veterans who Re-entered the VR&E Program after Rehabilitation, by Cohort**



Source: Administrative Data

<sup>20</sup> 38 CFR Book G, Vocational Rehabilitation and Education. §21.284—Reentrance into a rehabilitation program



### 3.F. Cohort Comparisons

The previous sections of the report present cohort findings as of FY 2016. However, these findings are affected by the differing lengths of time that each cohort has been in the study. As such, this section compares findings for the cohorts using a common elapsed time, specifically within three years of beginning a rehabilitation plan for all three Cohorts. This section also compares findings for Cohort I and Cohort II within five years of beginning a rehabilitation plan. Within this section, comparisons of program-related outcomes based on administrative data are presented, such as the proportion of cohort members who have exited the program within the first three years of program entry.

Within 5 years of beginning an employment plan, 28% of Cohort I members and 32% of Cohort II members achieved rehabilitation.

*It is important to remember that the majority of VR&E participants are in Employment through Long-Term services track, and many in this track are pursuing additional training or education that may take several years to complete.*

As of the end of FY 2016, four to five years had passed since Cohort II (FY 2012) members first began a VR&E plan of services, while Cohort I (FY 2010) members reached this time benchmark in FY 2014. For Cohort III, three years have passed since members first began a VR&E plan of service. Using data as of FY 2012 for Cohort I, data from FY 2014 for Cohort II, and FY 2016 for Cohort III outcomes within three years of beginning a VR&E program can be compared for all three Cohorts. Specifically, the employment rate, annual earnings, and annual income can be compared for each cohort. However, when comparing these data, it is important to recognize that the three-year outcomes reported for Cohort I are for outcomes achieved as of FY 2012 and the three-year outcomes reported for Cohort II are for outcomes achieved 2 years later, as of FY 2014. This is the first year that outcomes across all cohorts can be compared.

#### Comparison of Program Outcomes

**Rehabilitation and discontinuation outcomes.** Comparisons of the cumulative proportion of cohort members who have achieved rehabilitation or discontinued services each year, within 5 years of beginning services, reveal that VR&E participants are exiting the program at similar rates over time. Figure 3C-1, presented earlier, shows that within one year of beginning services only about one or two percent of VR&E participants successfully achieve rehabilitation from an employment plan. Less than 10 percent achieve rehabilitation within 2 years of program entry. While the number of participants that achieved rehabilitation from an employment plan continued to increase over time, slightly less than one-third have achieved rehabilitation within 5 years of beginning services (28 percent for Cohort I and 32 percent for Cohort II). It is important to remember, however, that the vast majority of participants pursue the Employment through Long-Term services track to complete education and training programs that may take several years to complete.

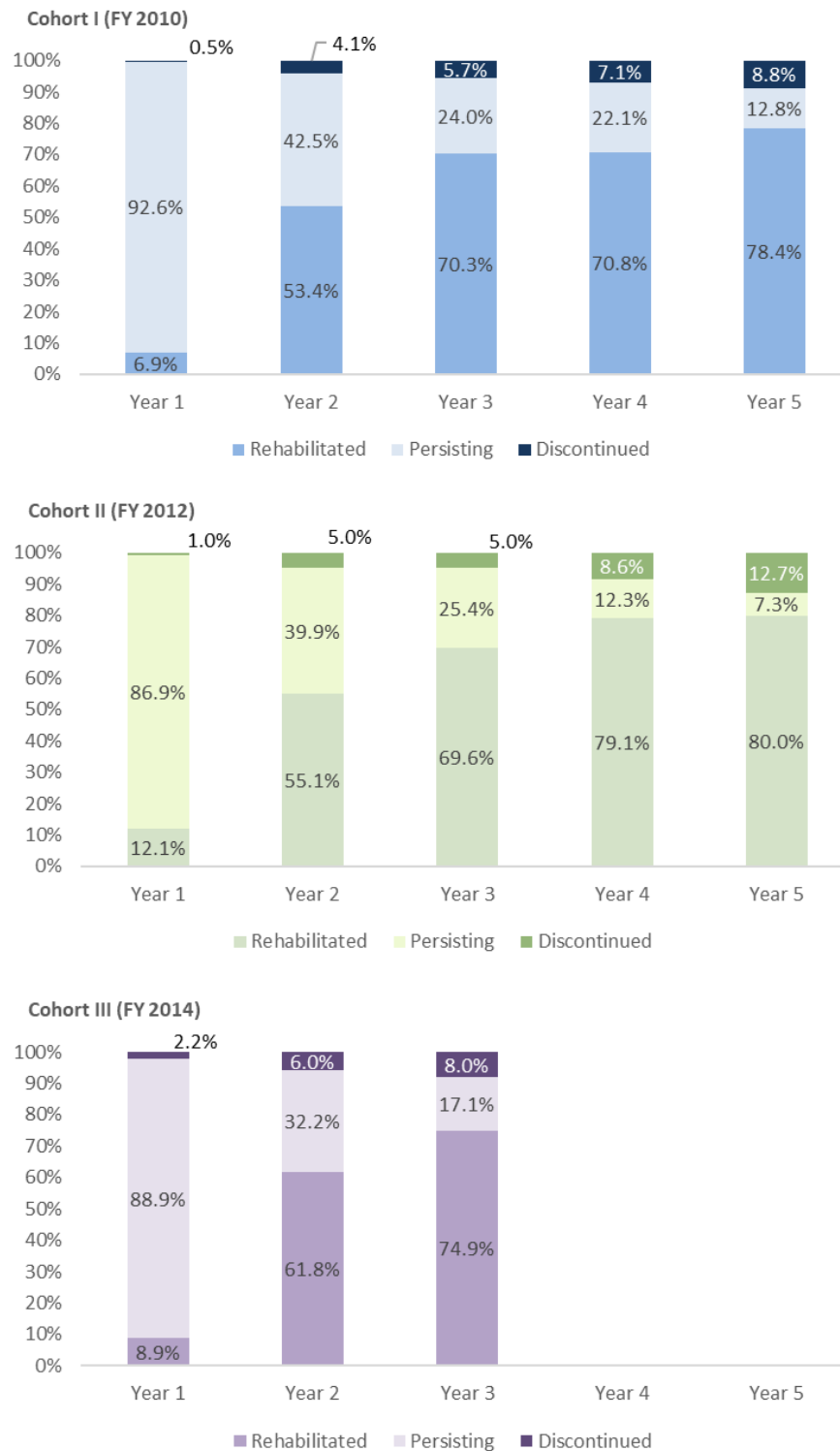
Figure 3F-1 indicates that for those pursuing an Independent Living plan, a high proportion of participants successfully complete the program within 5 years of beginning services (78 percent of

Cohort I and 80 percent of Cohort II). As indicated in the figure, the largest increases in the proportion of Veterans in an Independent Living program who achieve rehabilitation occurs within 2 and 3 years of beginning the program, given that the program generally lasts 24 months, with an additional 6-month extension if needed. Extensions beyond 30 months may be granted under certain circumstances for Post-9/11 Veterans who served on active duty and have a severe disability incurred or aggravated by that service.

As shown in Figure 3F-2, among participants in an employment plan, 25 percent of Cohort I and 30 percent of Cohort II have achieved rehabilitation after 5 years. In each of these two cohorts, the share of Veterans who discontinued after 5 years was within a few percentage points of the share who achieved rehabilitation. Comparing results for all three cohorts at the 3-year mark, the percentage of participants who achieved rehabilitation is higher for the more recent cohorts (15 percent for Cohort II and 16 percent for Cohort III) than for the 2010 Cohort (10 percent).

The data also indicate that, for Veterans enrolled in an Independent Living plan (Figure 3F-1) or an Employment Plan (Figure 3F-2), cumulative discontinuations by the third year of enrollment are slightly higher for Cohort III, compared to Cohorts I and II.

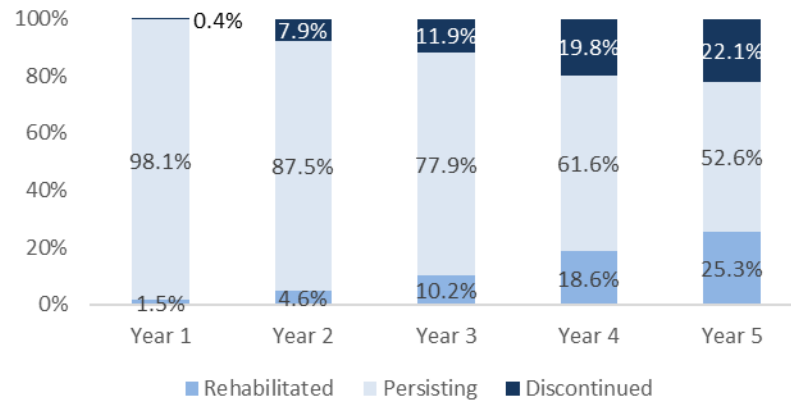
Figure 3F-1. Cumulative Percentage of VR&E Participants in an **Independent Living Track** who Achieved Rehabilitation, Discontinued, or are Still Persisting as of each Study Year, by Cohort



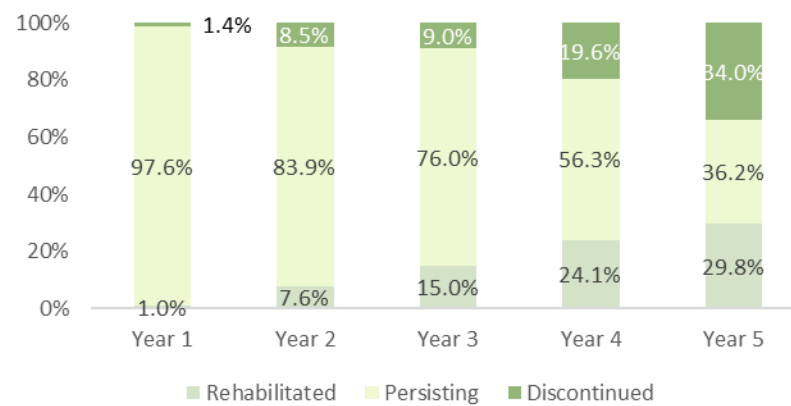
Source: Administrative Data

Figure 3F-2. Cumulative Percentage of VR&E Participants in an **Employment Track** who Achieved Rehabilitation, Discontinued, or are Still Persisting as of each Study Year, by Cohort

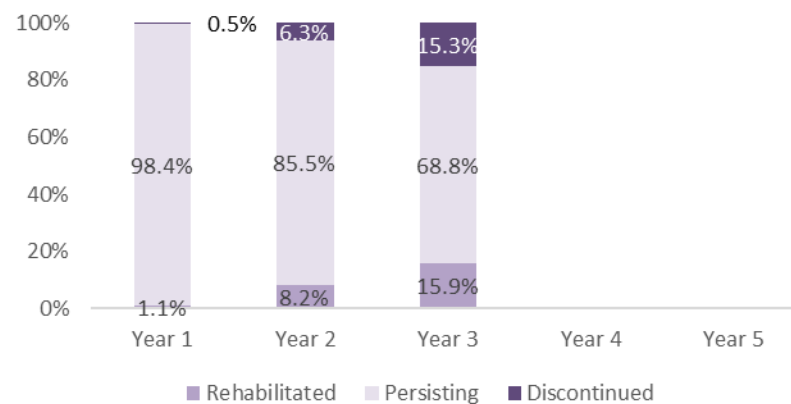
**Cohort I (FY 2010)**



**Cohort II (FY 2012)**



**Cohort III (FY2014)**

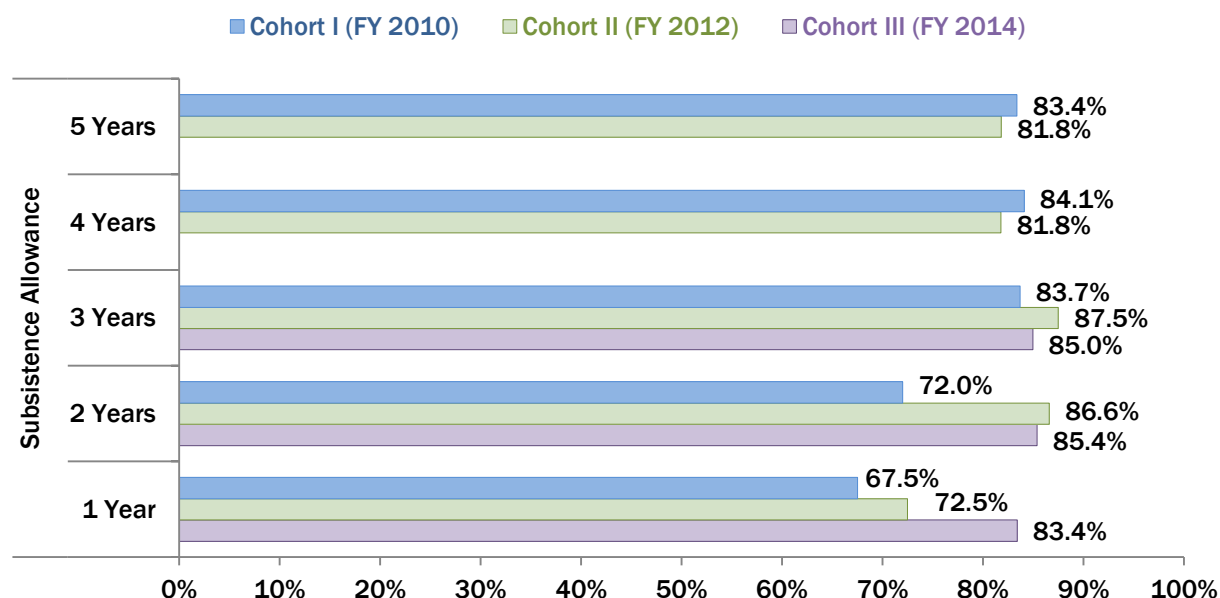


Source: Administrative Data

**Receiving subsistence allowance for a training program.** Passed into law on January 4, 2011, Public Law 111-337 allows VR&E participants who are also eligible for Chapter 33 benefits to elect to receive a subsistence allowance at the Basic Allowance for Housing (BAH) rate instead of the traditional subsistence allowance rate. In some circumstances, the BAH rate may be higher than the traditional subsistence allowance rate.

As the VA expanded their outreach efforts to inform Veterans and Servicemembers of the benefits of participating in the VR&E program, knowledge of the enhanced housing allowance may have attracted VR&E participants in more recent years to use the subsistence allowance benefit under the VR&E program. The patterns revealed in Figure 3F-3 support this claim.

**Figure 3F-3. Percentage of VR&E Participants Receiving Subsistence Allowance, Within First 5 Years of Program Participation, by Cohort**



Source: Administrative Data

Only 68 percent and 72 percent of Cohort I members received a subsistence allowance for an education or training program in FY 2010 (year 1) and FY 2011 (year 2), respectively. However, the percentage of Cohort I members receiving a subsistence allowance increased to 84 percent for FY 2012 (year 3) and FY 2013 (year 4), and remained high, at 83 percent, for year 5. Similarly, for Cohort II, the proportion who received a subsistence allowance increased from 73 percent in FY 2012 (year 1) to 87 percent in FY 2013 (year 2). Likewise, 83 and 85 percent of Cohort III received a subsistence allowance in FY 2013 (year 1) and FY 2014 (year 2), respectively. The pattern suggests that, for Cohorts I and II, the share of Veterans who received a subsistence allowance increased after VA expanded their outreach efforts regarding P.L. 111-337. For Cohort III, the changes were in effect at the time of their enrollment, and so the share of participants receiving a subsistence allowance started relatively high (83 percent) and remained so for subsequent years.

The passing of P.L. 111-337 in FY 2011, which provides a **higher subsistence allowance** equivalent to the Basic Allowance for Housing rate for eligible VR&E participants, combined with VA **outreach efforts** regarding this change, resulted in **more VR&E participants** using the Chapter 31 benefit.

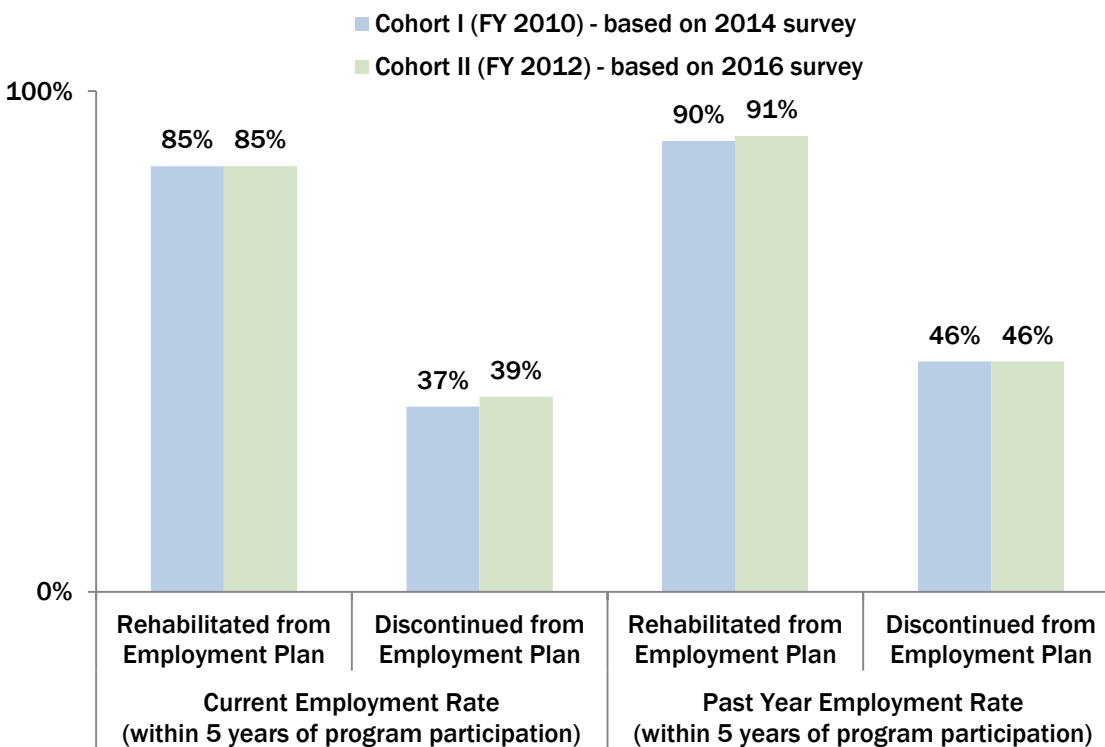
## Comparison of Employment and Standard of Living Outcomes

When comparing employment outcomes for participants who exit the program, it is important to examine these measures separately for those who exit from an employment plan versus an Independent Living plan, given that the primary goal of Independent Living is to enable Veterans to function without the services of others or with a reduced level of the services of others to live as independent as possible versus employment. Conversely, individuals pursuing an employment plan obtain the skills and training necessary to be competitively employed in their field. VR&E evaluates each participant as they near the completion of their rehabilitation goals and determines that their new training and skill development has made them competitive in their chosen field. VR&E also assesses and assists with their job seeking skills such as resume development and interview skills. Once a Veteran has all the necessary training and skills, they are declared job ready.

The final set of findings in this section compares the employment rate, annual earnings, and annual income for Cohorts I and II within five years of beginning a plan of services. However, when comparing these data, it is important to recognize that the five-year outcomes reported for Cohort I are for outcomes achieved as of FY 2014 and the 5-year outcomes reported for Cohort II are for outcomes achieved two years later, as of FY 2016. Given that the U.S. economy has improved in recent years, one would expect the economic outcomes for cohort members to improve over time as well.

Figure 3F-4 indicates that both Cohorts I and II experienced similar rates of employment for those who exited the VR&E program from an employment plan within 5 years of beginning services. As expected however, Veterans who have achieved rehabilitation from an employment plan have much higher rates of employment – approximately 45 to 50 percentage points higher – compared to Veterans who discontinued from an employment plan.

**Figure 3F-4. Employment Rates *Within 5 Years* of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**

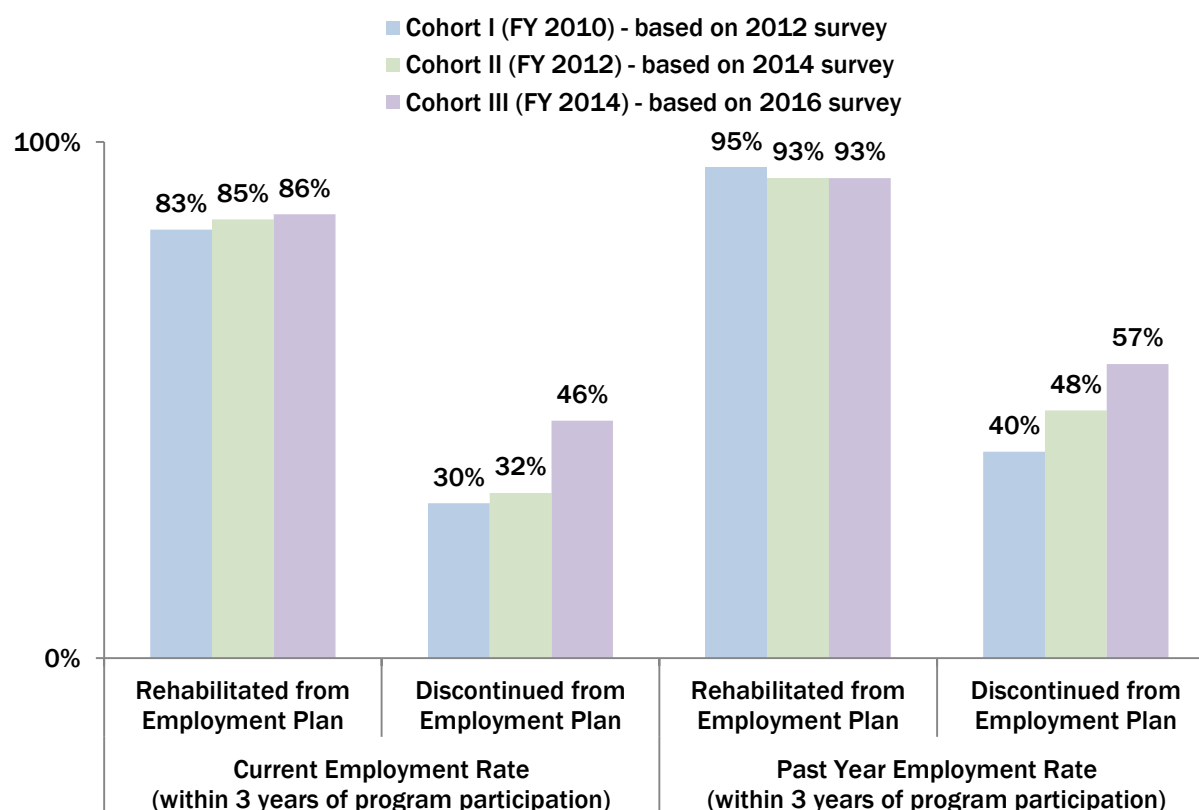


Note: Percentages (%) reported in the figure are based on survey data that has been weighted to reflect the cohort population. Current employment rate is defined as the percentage of cohort members who reported being employed as of the survey date. Past year employment rate is defined as the percentage of cohort members who reported working at any point in the past 12 months (including working currently as of the survey date).

Source: VR&E FY 2016 Survey Data

Figure 3F-5 indicates that Cohorts I, II, and III had similar rates of employment for those who rehabilitated from an employment plan within 3 years of beginning services. Participants who discontinued from an employment plan had, as expected, much lower rates of employment at the 3-year period than their counterparts who completed their employment program. Interestingly, the gap in rates of employment between discontinued and rehabilitated participants was considerably smaller for Veterans in Cohort III at the 3-year mark. This may reflect improved U.S. economic conditions and availability of jobs in recent years.

Figure 3F-5. Employment Rates **Within 3 Years** of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort



Note: Percentages (%) reported in the figure are based on survey data that has been weighted to reflect the cohort population. Current employment rate is defined as the percentage of cohort members who reported being employed as of the survey date. Past year employment rate is defined as the percentage of cohort members who reported working at any point in the past 12 months (including working currently as of the survey date).

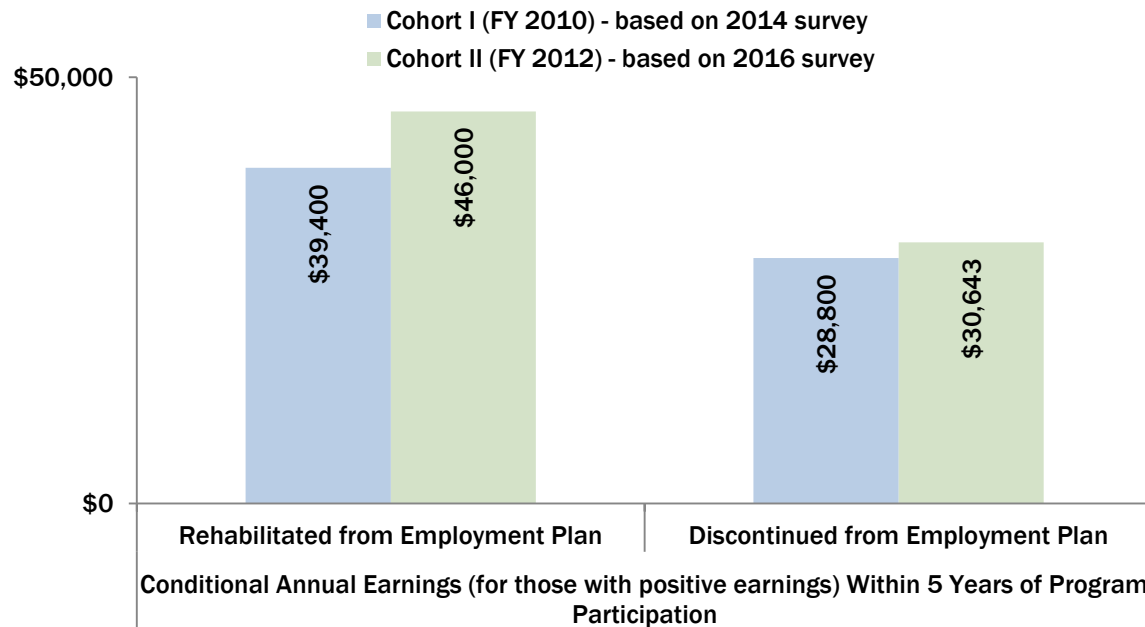
Source: VR&E FY 2016 Survey Data

When comparing the annual earnings amounts for participants who are employed within 5 years of beginning services, the earnings of those who have achieved rehabilitation from an employment plan are higher than those who discontinued, as shown in Figure 3F-6, particularly for Cohort II. Cohort II members who achieved rehabilitation from an employment plan within 5 years of starting services reported higher earnings (\$46,000 in FY 2016) compared to Cohort I within 5 years (\$39,400 in FY 2014). In percentage terms, the median earnings of Cohort II Veterans who rehabilitated from an employment plan are nearly 17 percent higher after 5 years than their Cohort I counterparts, a rate that well outpaces inflation over the period.<sup>21</sup> For Veterans who discontinued from an employment plan, the earnings difference between the two cohorts 5 years after initial enrollment is not as large.

<sup>21</sup> [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm)



Figure 3F-6. Conditional Median Earnings from Employment (for those with positive earnings) **Within 5 Years** of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort



Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Earnings are defined as the amount earned, before taxes and other deductions, in the past 12 months from all jobs or businesses.

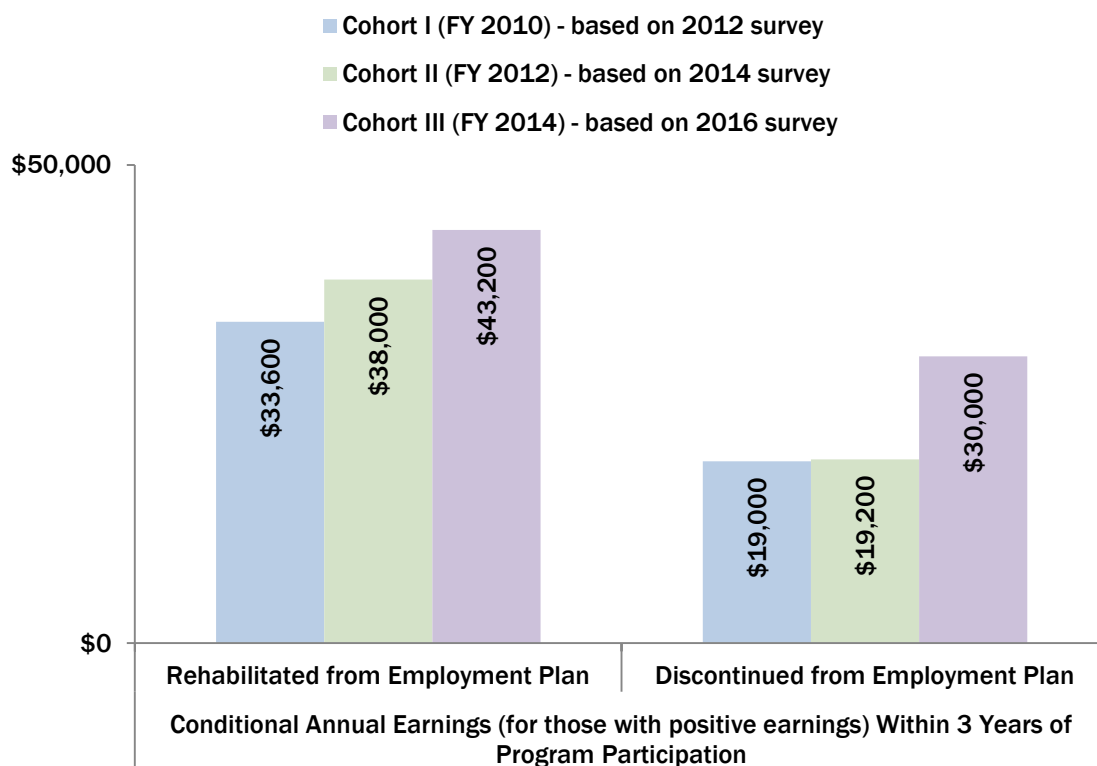
Source: VR&E FY 2016 Survey Data

Because the distribution of some measures is so heavily skewed toward zero (e.g., annual earnings), and thus, the data are not normally distributed, figures report either the unconditional (includes zero values) and conditional (excludes zero values) mean and/or median. Hence, the conditional median provides an estimate of the average amount of annual earnings among Veterans who reported working. Figure 3F-7 compares, for employed Veterans, median annual earnings three years after beginning VR&E services. Earnings are displayed separately for those in each cohort who achieved rehabilitation from an employment plan, and their counterparts who discontinued from an employment plan. As expected, earnings for rehabilitated participants are substantially higher after three years compared to Veterans who discontinued Veterans, and this is true for all three cohorts. It is noteworthy, however, that the earnings of Veterans from Cohort III who discontinued from an

Among employed Veterans, annual earnings 3 years after enrolling in VR&E are substantially higher for members of Cohort III, even after considering inflation. This could reflect both the improved job market Cohort III Veterans faced 3 years after beginning their employment plan, as well as the particular characteristics of the cohort.

employment plan are roughly 60 percent higher than their discontinued counterparts from Cohort I and Cohort II three years after initial enrollment. The higher earnings among members of Cohort III, for both the rehabilitated and discontinued participants, well outpaces the rate of inflation over the period.<sup>22</sup>

**Figure 3F-7. Conditional Median Earnings from Employment (for those with positive earnings) Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**



Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Earnings are defined as the amount earned, before taxes and other deductions, in the past 12 months from all jobs or businesses.

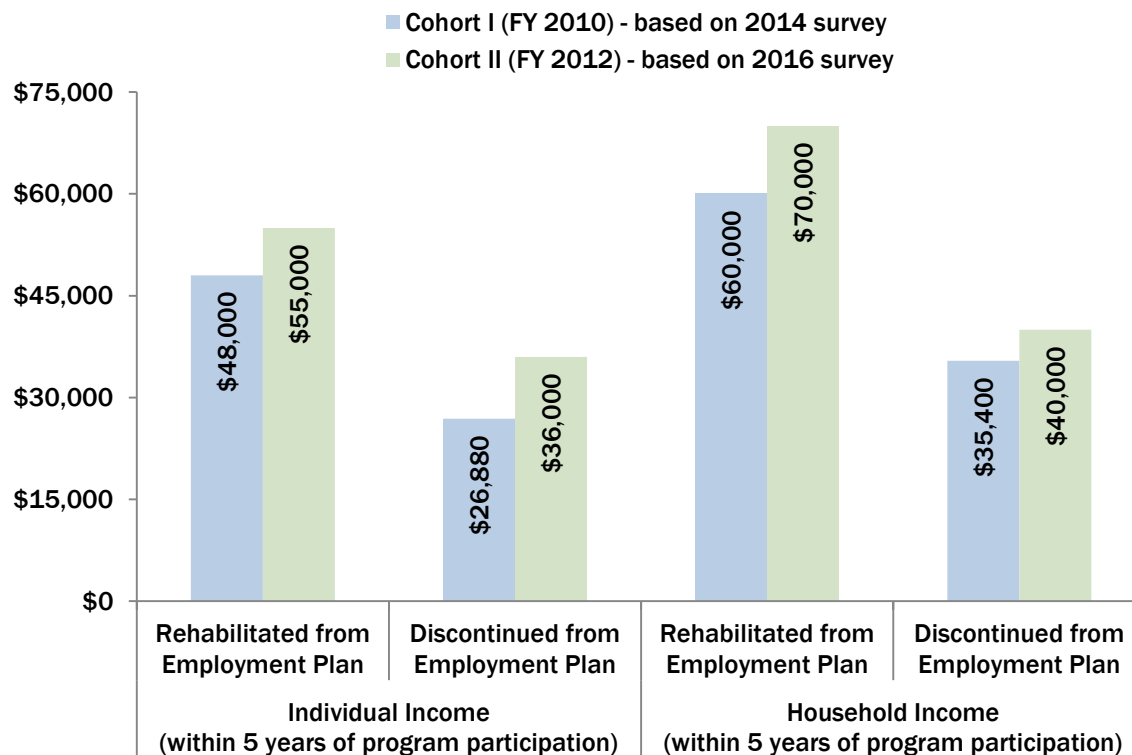
Source: VR&E FY 2016 Survey Data

Figure 3F-8 presents the annual income amounts reported by those who exited from an employment plan within five years of beginning services. As expected, participants who have achieved rehabilitation from an employment plan report annual individual and household income amounts substantially higher than do participants who discontinue from an employment plan. Given that Veterans who have achieved rehabilitation from an employment plan report higher annual earnings from employment, it is not surprising that reported income amounts (which include earnings from employment) are also higher. Figure 3F-8 also reveals that the income of VR&E participants has increased over time. Cohort II

<sup>22</sup> [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm)

members reported higher income amounts in the 2016 survey compared to the income amounts reported by Cohort I members in the 2014 survey. Again, these differences outpace the inflation rate between 2013 and 2015.

**Figure 3F-8. Unconditional Median Annual Income *Within 5 Years* of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**

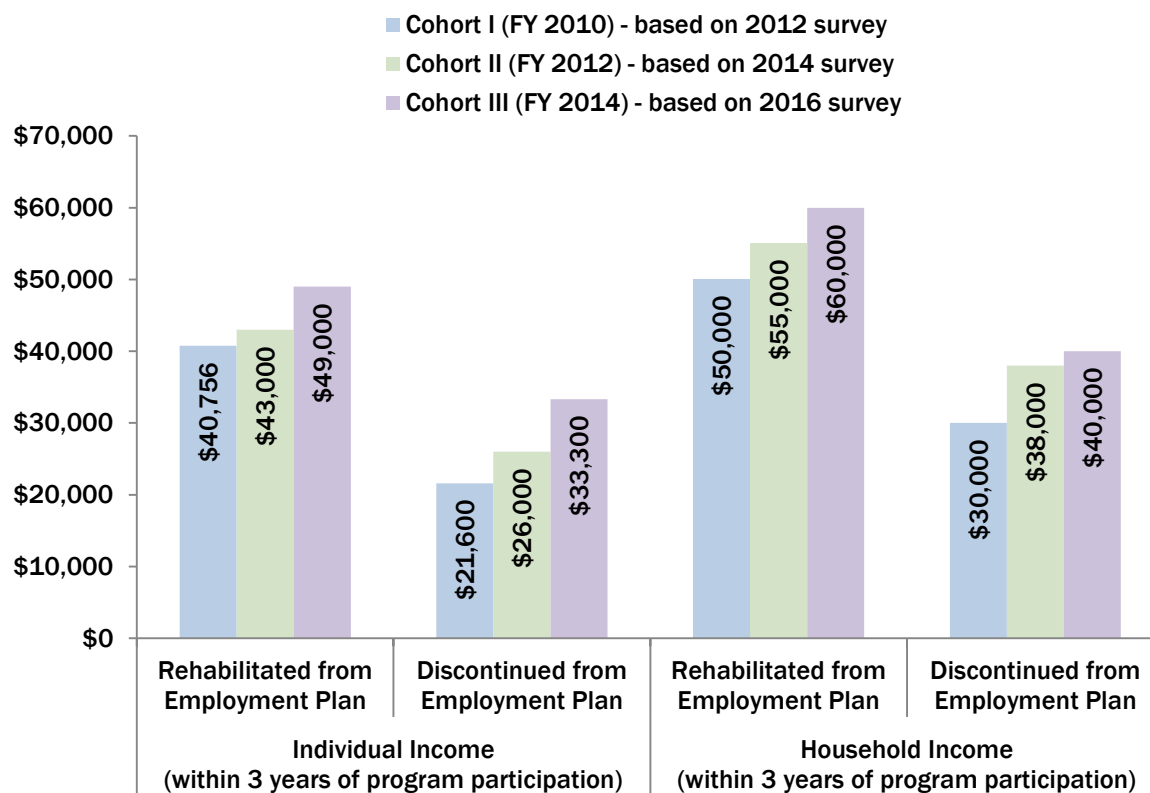


Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Income is defined as income received from all sources, before taxes, in the past 12 months, including earnings from a job, benefits received from government programs, and any retirement, pension, investing, or savings income from which regular payments are received.

Source: VR&E FY 2016 Survey Data

Figure 3F-9 presents, for all three cohorts, the annual income amounts reported by those who exited from an employment plan within three years of beginning services. The data show that each cohort had higher income—at both the individual and household levels—than the preceding cohort. That is, members of Cohort III reported higher income at the three-year mark than members of Cohort II, and members of Cohort II had higher income than Cohort I after the same time span. The successive increases between each cohort shown in the figure (i.e., each “step”) are greater than the corresponding rates of inflation during each two-year reference period. As expected, those who discontinued from an employment plan had lower individual and household income than those who completed their rehabilitation.

**Figure 3F-9. Unconditional Median Annual Income Within 3 Years of Program Participation for VR&E Participants who Achieved Rehabilitation or Discontinued from an Employment Plan, by Cohort**



Note: Amounts reported in the figure are based on survey data that has been weighted to reflect the cohort population. Income is defined as income received from all sources, before taxes, in the past 12 months, including earnings from a job, benefits received from government programs, and any retirement, pension, investing, or savings income from which regular payments are received.

Source: VR&E FY 2016 Survey Data

In general, Cohorts II and III have outcomes similar to those seen in Cohort I at the same time period. The most substantive finding of the Longitudinal Study to date is that Veterans who achieve rehabilitation have substantially better employment and standard of living outcomes than those who discontinued services (regardless of the length of time since they began their VR&E program of services).

Successful rehabilitation remains one of the most dominant variables driving positive financial outcomes (employment rate, months worked, annual earnings, and annual individual and household income) compared to those Veterans who were discontinued.

## 4. SUMMARY OF FINDINGS AND EARLY CONCLUSIONS

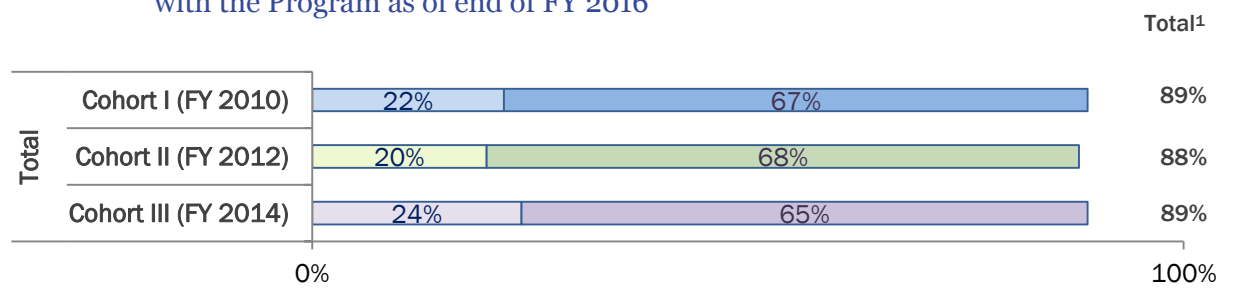
The data analyzed for Cohorts I, II, and III during these early years of the VR&E Longitudinal Study reveal some common patterns across the three cohorts as well as a few differences. The main findings are summarized below.

The majority of all participants for all cohorts reported moderate to high program satisfaction (~90%).

### 4.A. Veteran Satisfaction

For all cohorts, almost 90 percent of Veterans reported moderate to high satisfaction with the VR&E program (see Figure 4-1). Participants who achieved rehabilitation and those still persisting in their plans reported higher program satisfaction relative to those who discontinued, for all cohorts. Multivariate regression analysis reveals that, for all three cohorts, in addition to program participation status, receipt of a subsistence allowance for a college degree program is associated with higher satisfaction.

Figure 4-1. Percentage of VR&E Participants Reporting Moderate or High Overall Satisfaction with the Program as of end of FY 2016

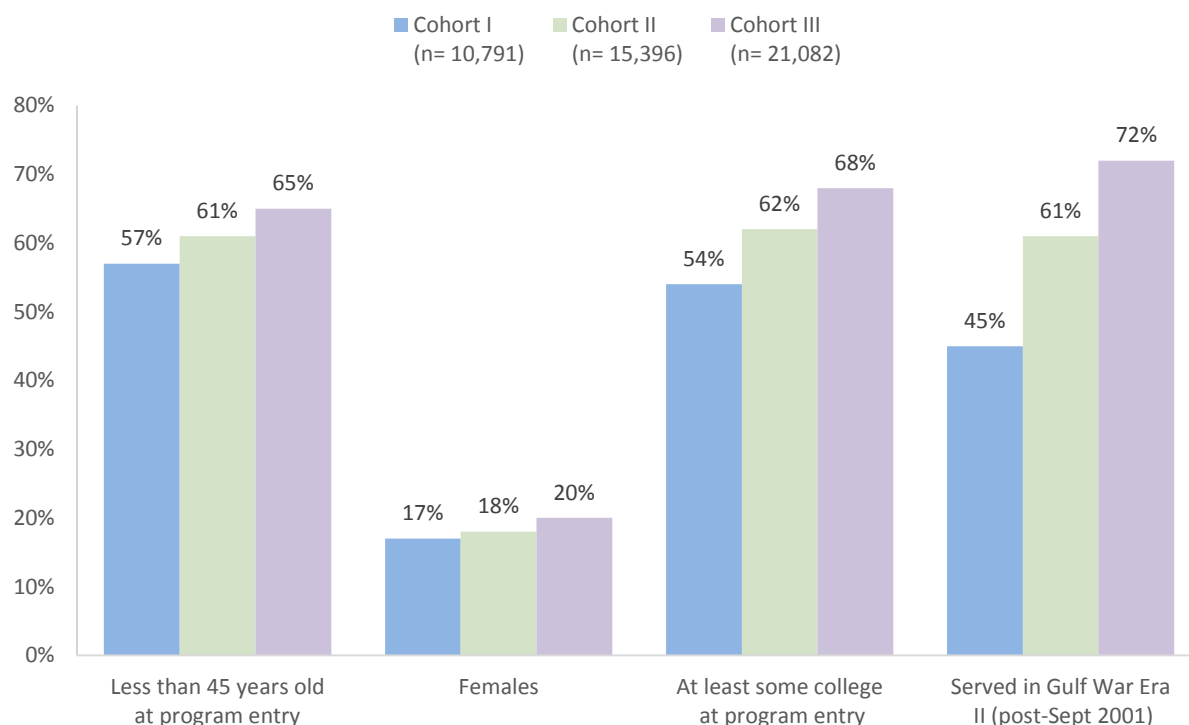


Source: VR&E FY 2016 Survey Data

### 4.B. Demographic Differences at Program Entry

Figure 4-2 reveals that more recent cohorts of VR&E participants are younger, have a slightly larger proportion of female Veterans, are more educated prior to program entry, have served on active duty longer, and have a higher proportion of Veterans that served in the Gulf War era. Females make up a larger percentage of VR&E program participants (17 to 20 percent) than the overall Veteran population (9 percent). However, the distribution of females among the VR&E cohorts is consistent with the proportion of females represented among all Gulf War era Veterans (17 percent).

Figure 4-2. Key Demographic Trends of VR&E Participants at Program Entry



*Note: Percentages (%) reported in figure are based on Administrative Data available for the cohort population.*

*Source: VBA FY 2016 Administrative Data*

The cohorts have grown substantially in size over time as more Veterans were eligible and seeking VR&E services. There are several likely contributing factors to this increase in participation such as increases in the number of recently separated Veterans, increases in the number of Veterans with a service-connected disability, and recent changes in program eligibility and provisions which may have attracted more Veterans rated with service-connected disabilities to the program. Comparisons over time of the proportion of cohort members receiving a subsistence allowance indicate that a larger proportion of VR&E participants received a subsistence allowance in FY 2012 and thereafter (relative to the proportion in years prior to FY 2012), which likely stems from the FY 2011 change in legislation that allowed VR&E to pay similar monthly allowances as those paid under the Post-9/11 GI Bill.

#### Characteristics of More Recent VR&E Participants:

- Younger
- More female Veterans
- More educated prior to program entry
- Longer period of active duty military service
- More Veterans that served in the Gulf War era II.

## 4.C. Program Outcomes (Rehabilitation and Discontinuation)

Cohort I Veterans have had more time to complete their rehabilitation plans, they have experienced larger increases in the number and proportion of Veterans who have successfully completed their program or who have discontinued program services. Comparisons of cohorts for the same period of program tenure reveal that participants exit the program at similar rates. Only about three percent of cohort members exit the program within the first year of receiving services.

Comparisons of cohorts for the same period of program tenure reveal that participants exit the program at similar rates.

The majority of Cohort members pursuing an Independent Living plan achieve rehabilitation within 30 months of entering an Independent Living plan.

Examination of program outcomes by track selection reveals different patterns. The varying program outcomes are primarily dependent upon the duration of service delivery in the various tracks. The largest increase in the cumulative proportion of cohort members who achieve rehabilitation from an Independent Living plan occurs within 30 months of entering the Independent Living plan.

Among cohort members pursuing an Independent Living plan, slightly more than half achieve rehabilitation within 24 months. This is expected, given that total plans of Independent Living services must be completed within 24 months. A six month extension may be approved for Veterans who incurred a service-connected disability before 9/11. Specific criteria for extensions beyond 30 months are possible, but rare, for Veterans who incurred a severe service-connected disability after 9/11.

Less than one-quarter of participants pursuing an employment plan achieve rehabilitation within four years of program start. Nevertheless, this finding is not surprising, as the majority of cohort members are in Employment through Long-Term Services track pursuing additional training or education, which may take years to complete. In fact, a recent study conducted by GAO reveals it often takes Veterans six years or more to successfully achieve rehabilitation.<sup>23</sup>

Successful completion of an employment plan takes time.

- Only less than **one-quarter** of Veterans pursuing employment goals rehabilitate in the **first four years**. *(This is largely due to the fact that the vast majority of VR&E participants are in **Employment through Long-Term Services** track to pursue additional training or education that may take several years to complete.)*

Similarly, for all cohorts, multivariate regression analyses reveal that the most dominant variable driving rehabilitation, as well as the amount of time it takes to rehabilitate, is program track selection. Veterans in any of the Employment Services tracks are less likely to successfully achieve rehabilitation by the end of FY 2016, and generally take longer to

<sup>23</sup> <http://www.go.gov/assets/670/660160.pdf>



Having a serious employment handicap and a higher disability rating lessens the likelihood of achieving rehabilitation.

rehabilitate due to the nature of these programs. In addition, having a serious employment handicap and a higher disability rating decreases the probability of successful rehabilitation (and increases the time it takes to rehabilitate), which indicates that Veterans with more complex disabilities, multiple disabilities, or more significant barriers to employment are not reaching

rehabilitation as quickly as those Veterans with fewer barriers. Conversely, having at least some college education at program entry, a higher pre-rehabilitation salary, serving a greater number of months on active duty, and having served in the Gulf War II era are associated with an increased likelihood of achieving rehabilitation (and rehabilitating sooner) by the end of FY 2016.

As of FY 2016, factors found to lead to discontinuation include employment track selection and high combined disability rating. Whereas, factors that mitigate Veterans from discontinuation include subsistence allowance for a degree program, at least some college education at program entry, greater number of months served in active duty, and service in the Gulf War I or II era.

#### **4.D. Employment and Standard of Living Outcomes**

Table 4-1 describes the long-term post-program outcomes measured by the VR&E Longitudinal Study. Because the main focus of the study is on long-term outcomes experienced by VR&E participants after exiting the program, the findings focus on the outcomes experienced thus far (i.e., as of FY 2016) by cohort members who have achieved rehabilitation or discontinued services.

The FY 2016 VR&E Longitudinal Study findings reveal that regardless of program tenure, Veterans who have achieved rehabilitation have substantially better employment and standard of living circumstances than those who discontinued. In fact, successful completion of the program (i.e., rehabilitation) was one of the most dominant factors driving positive financial outcomes compared to those who discontinued program services. Participants who have achieved rehabilitation experience higher rates of employment, and consequently higher earnings from employment. When comparing earnings for only those cohort members who report working, those who have achieved rehabilitation report higher earnings amounts than those who discontinued, suggesting that Veterans who achieve rehabilitation both work more, and earn more, than Veterans who have discontinued from the program.

**Table 4-1. Employment and Standard of Living Outcome Measures Analyzed in this Study**

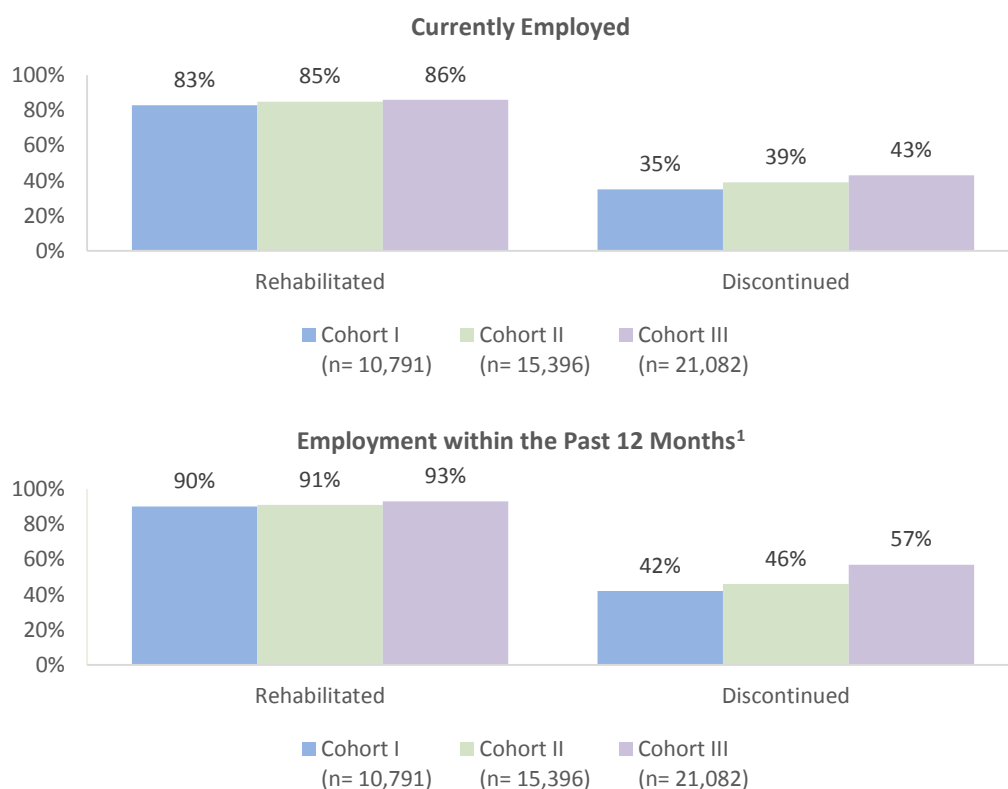
<b>Employment Outcomes</b>	
Current Employment Rate	Survey report on if currently employed at time of survey
Extent Current Job Matches Training	Survey report on how closely current job matches VR&E training
Past Year Employment Rate	Survey report on if worked in the 12 months prior to the survey
Number of Months Employed During Past Year	Survey report on how many months worked in the 12 months prior to the survey
<b>Earnings</b>	
Annual Earnings	Survey report on how much earned in the 12 months prior to the survey
Pre-Rehabilitation and Post-Rehabilitation Salaries	VA administrative data collected at the beginning of the program and at the point of rehabilitation
<b>Income</b>	
Individual Income	Survey report of annual individual income from all sources including salary/wage income and income from other sources such as VA disability benefits
Household Income	Survey report of annual household income
Unemployment Compensation Rate	Survey report of receipt of unemployment benefits in the 12 months prior to the survey
<b>Home Ownership</b>	
Home Ownership Rate	Survey report of home ownership

Source: EconSys Study Team

The FY 2016 VR&E Longitudinal Study findings reveal that regardless of program tenure, Veterans who have achieved rehabilitation have substantially better employment and standard of living circumstances than those who discontinued. In fact, successful completion of the program (i.e., rehabilitation) was one of the most dominant factors driving positive financial outcomes compared to those who discontinued program services. Participants who have achieved rehabilitation experience higher rates of employment, and consequently higher earnings from employment. However, when comparing earnings for only those cohort members who report working, those who have achieved rehabilitation report higher earnings amounts than those who discontinued, suggesting that Veterans who achieve rehabilitation both work more, and earn more, than Veterans who have discontinued from the program.

**Employment Outcomes.** For Veterans who have achieved rehabilitation from an employment plan, more than 90 percent reported employment in the past 12 months (see Figure 4-3). On average, employment rates for Veterans who achieve rehabilitation are 40 to 50 percentage points higher than those of discontinued Veterans.

**Figure 4-3. Past Year Employment Rate for VR&E Participants Who Achieved Rehabilitation or Discontinued from an Employment Plan as of end of FY 2016**



Source: FY 2016 VBA Administrative and VR&E Survey Data

Approximately three-quarters of participants who achieved rehabilitation were employed in a job that matches or nearly matches their training provided by VR&E, compared to only one-third (or slightly more) of participants who did not complete their rehabilitation plans.

**Earnings.** Participants who have achieved rehabilitation also have substantially higher earnings over the past 12 months, relative to discontinued participants, which is largely due to more participants that have completed the program and are working. However, when comparing the median annual earnings of only those cohort members who reported working, rehabilitated participants earned, on average, 35 to 45 percent more than discontinued participants. Furthermore, over time, each cohort has experienced increases in annual earnings that have substantially outpaced the annual inflation rate. These increases are heavily influenced by Veterans having completed the program, being employed longer, and earning promotions and raises. Veterans who did not reach their rehabilitation goals are seeing increases in

incomes over time as well, but still make substantially less than those who successfully completed the program.

**Income.** In addition to higher earnings levels, participants who have achieved rehabilitation reported substantially higher income levels relative to discontinued participants. Specifically, for Cohort I, the median annual income for Veterans who achieved rehabilitation was 53 percent larger than that of Veterans who did not complete the program (\$52K versus \$34K), as of FY 2016. For the median annual household income, the amount was 62 percent higher for Cohort I members who achieved rehabilitation compared to those who discontinued (\$68K versus \$42K).

For Cohort I, the median annual individual income of participants who achieved rehabilitation is 53% greater than that of discontinued participants.

The median annual household income of Cohort I participants who achieved rehabilitation is 62% greater than that of discontinued participants.

Cohort II has similar income and earnings as Cohort I. median annual income for Veterans who achieved rehabilitation was 50 percent larger than that of Veterans who did not complete the program (\$54K versus \$36K), as of FY 2016. For the median annual household income, the amount was 65 percent higher for Cohort I members who achieved rehabilitation compared to those who discontinued (\$66K versus \$40K).

Over time, fewer Veterans reported receiving unemployment benefits. Although the exact reason for this trend cannot be determined, the decline in the unemployment compensation rate may be partially explained by the fact that some participants may not need unemployment benefits or may have exhausted unemployment benefits at the time of the survey.

**Home Ownership.** A larger percentage of those who have achieved rehabilitation reported owning their principal residence, relative to that of those who discontinued (Cohort I – 69 percent versus 56 percent; Cohort II – 65 percent versus 54 percent; Cohort III – 60 percent versus 48 percent).

## 4.E. Future Reports

As these three cohorts are followed over time and as more VR&E participants exit the program, more data will be available on the long-term outcomes of Veterans and the key programmatic and demographic factors influencing these outcomes. Moreover, as multiple years of data are collected, it will be possible to examine more salient trends in outcomes. In addition, over time, more robust comparisons can be made across all three cohorts using the same time benchmark. Finally, as the cohorts mature and more participants re-enter the program after discontinuation or after having achieved rehabilitation, analyses can assess how entering the program more than once may influence long-term outcomes.