# Analysis of Differences in Disability Compensation in the Department of Veterans Affairs 

Volume 1: Final Report

David E. Hunter, Project Leader
Raymond Boland
Kristen M. Guerrera
Brian Q. Rieksts
David M. Tate

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# INSTITUTE FOR DEFENSE ANALYSES 

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## PREFACE

The Institute for Defense Analyses (IDA) prepared this two-volume paper for the Department of Veterans Affairs under a task titled "Support to the Department of Veterans Affairs (VA)." The paper fulfills the task objective of providing analytical support to the VA by reporting on IDA's detailed scientific study of the state-by-state and VA regional office variation in disability compensation claims, ratings, and monetary benefits. This volume presents the study methods, analyses, findings, and recommendations, while the second volume contains supporting documentation.

Stephen J. Balut, David R. Graham, and Stanley A. Horowitz of IDA were the technical reviewers for this paper. The authors acknowledge the contributions of the following individuals who were also part of the study team: Christina H. Bittle, Lark L. Lewis, Neang I. Om, Karen W. Tyson, Molly J. Whipple, Claire C. Willis, and James P. Woolsey.

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## EXECUTIVE SUMMARY

## BACKGROUND

The Department of Veterans Affairs (VA) disability compensation program provides monthly payments to veterans with injuries incurred or aggravated during military service. The VA operates 57 VA Regional Offices (VAROs) to process disability compensation claims.

Veterans receive awards based on the combined degree of disability of their service-related injuries. Injuries are rated from $0 \%$ to $100 \%$ in increments of $10 \%$. In addition, veterans unable to work due to a service-related disability may qualify for Individual Unemployability (IU), which entitles them to receive payments at $100 \%$ even though they have a lower combined degree of disability.

In December 2004, the VA requested that its Office of the Inspector General (OIG) investigate variation across states in disability compensation. The OIG concluded that the factors influencing the variation are complex and intertwined and recommended a scientifically sound study of the major factors be conducted. The VA contracted the Institute for Defense Analyses (IDA) to conduct this study. The objective was to identify the main sources of observed variation across states and VAROs in the following areas:

- Average payments to veterans receiving disability compensation; and
- Percentage of veterans receiving disability compensation.


## METHODOLOGY

It would be unreasonable to expect states to have exactly the same average compensation or percentage of veterans receiving compensation. Many factors distinguish one state from another. Among these are differences in the size and composition of the veteran population. For instance, veterans in some areas may have different types of disabilities than veterans in another area. No one would be surprised if a claim for moderate hearing loss were adjudicated differently than a claim for a mental disability.

To achieve our objective, we first formed hypotheses regarding the possible causes of variation across states. We collected hypotheses through extensive discussions with VA personnel, review of the Office of the Inspector General's report, and our own evaluation of the claims process. We also used data mining software to discover relationships in the data.

After formulating our hypotheses, we collected data from VA databases and other open sources for use in statistical tests to quantify the amount of variation explained by each hypothesis in average compensation dollars or percentage of veterans receiving compensation. We first examined and quantified variation explained for each factor individually. When possible, we then combined various factors to quantify their total effect.

## FINDINGS

## Variation in Average Disability Compensation

Concerning our first area of study, sources of variation in average payments to veterans receiving disability compensation, we found that veterans receiving maximum awards ( $100 \%$ or IU rated) significantly influence variation in average awards across states. Of the two ratings, IU is the most significant single factor affecting variation in average awards across states. Although veterans rated IU or receiving $100 \%$ awards are only $17 \%$ of compensation recipients, they represent $58 \%$ of the total payments for disability compensation. We found that differences across states in the percentage of recipients receiving maximum awards explain the vast majority of the variation in average awards across states.

We tested a wide variety of demographic and claim-specific factors to identify those that influence these outcomes. Our findings are as follows:

- Together, differences across states in the mix of claims involving post-traumatic stress disorder (PTSD), power of attorney representation, and period of service (POS) account for half of the observed variation in average awards across states.
- We found significant differences across states in the percentage of recipients receiving a PTSD award. Differences across states in the percentage of recipients with PTSD account for $39.8 \%$ of the variation of average awards across states.
- County median family income, percentage of the general population with a mental disability, and population density are significant demographic factors we found to be correlated to the average awards.

Note that differences in the percentage of recipients with PTSD could be due to several factors. For instance, there could be differences across states in application rates for PTSD claims, in the grant rates at the VAROs, or in the prevalence in the state of veterans with PTSD. Thus, the observed percentage of recipients with a PTSD award may be in part due to differences in adjudication results, specifically differences in denied claims.

## Variation in Percentage of Veterans Receiving Compensation

Our second area of study was sources of differences in the percentage of veterans receiving compensation. The number of veterans receiving compensation is a function of the number of veterans who have applied and the grant rate. VA does not explicitly track these data; however, we were able to create a proxy for these factors. Our findings indicate that application rates are the primary driver of the variation in the percentage of veterans receiving compensation.

Differences across states inherent to the veteran population itself can influence both application and grant rates and thus the percentage of veterans receiving compensation. We found that:

- Military retirees are over four times as likely to receive compensation as nonretirees. Differences across states in the percentage of military retirees alone accounts for over $40 \%$ of the variation in the percentage of veterans receiving compensation.
- Other factors such as POS and county veteran density were also associated with the variation in the percentage of veterans receiving compensation. However, there was not sufficient data on the veteran population or applicants to compute the combined effect of these factors.


## Observations on Adjudication Process

We found that the process by which VA adjudicates claims has potential for producing persistent regional differences in rating results. We examined the process and found that rating decisions often call for subjective judgments. Most of the VA personnel we interviewed agreed that for certain claims different raters could reasonably arrive at different results.

We also examined the training provided to raters and found that training varies from VARO to VARO and over time. We identified efforts by management to promote consistency in ratings within individual offices. However, we find that there have been insufficient efforts at the national level to promote consistency across VAROs.

## SUMMARY

In this study, we found that the average award in a state is almost entirely driven by the proportion of recipients who are receiving maximum awards. Specifically, differences across states in the percentage of recipients receiving IU awards are the largest single driver of the observed variation in average awards.

We determined that much and possibly most of the observed variation across states is associated with differences in the mix of compensation recipients in each state. We note that these different mixes across states may be due to differences in the mix of eligible veterans, differences in application rates, or differences in grant rates across VAROs.

We examined the process by which VA adjudicates claims and found that the process has potential for producing persistent regional differences in rating results. We offer recommendations to improve the consistency of adjudication results and to identify areas of likely inconsistencies.

## I. INTRODUCTION

## A. BACKGROUND

In December 2004, the Chicago Sun-Times printed a series of articles that made two major claims regarding disability compensation to disabled veterans. ${ }^{1}$ The first claim was that veterans in Illinois have consistently received lower average disability compensation than other states in the nation. The second claim was that a lower percentage of Illinois veterans receive compensation than the national average. In response, the Department of Veterans Affairs (VA) directed their Office of the Inspector General (OIG) to investigate the validity of the claims and the causes of variation in average monthly disability compensation payments to veterans in different states. The OIG released its study results in May 2005, and one of its recommendations was to conduct a scientifically sound study of the major influences on compensation payments using statistical models. ${ }^{2}$ The VA contracted the Institute for Defense Analyses (IDA) to conduct such a study.

## B. OBJECTIVE

The objective of this study was to identify the main causes of the observed variation across states and VA Regional Offices (VAROs) in the following areas:

- Average payments to veterans receiving disability compensation; and
- Percentage of veterans receiving disability compensation.


## C. OVERVIEW OF THE VA DISABILITY COMPENSATION PROCESS

The VA disability compensation program provides monthly payments to veterans with injuries incurred or aggravated during military service. To receive disability

[^0]compensation, a veteran must submit an application for processing by a VARO. Figure 1 illustrates the disability claims process.


Figure 1. Overview of the VA Disability Compensation Process

After submitting a claim, either directly or through a Veteran Service Officer, the veteran would likely be examined by a VA-specified doctor. The claim typically begins at triage, proceeds through claim development, and then is evaluated by a rating specialist. Applications are processed at one of 57 VAROs. Every state except Wyoming has at least one VARO. There are two VAROs each in Pennsylvania, New York, and Texas and three in California. In addition, there are VAROs in the Philippines, Puerto Rico, and Washington, D.C.

A veteran's VARO of jurisdiction is determined by the veteran's location. For instance, the Chicago office is the VARO of jurisdiction for all veterans in Illinois. Once a claim arrives at a VARO, it proceeds through various stages and eventually reaches a VA rating specialist.

For each injury a veteran claims, the rating specialist determines if the injury is service connected and then assigns a degree of disability by applying the criteria in the VA rating schedule. Veterans may appeal any decision, and there is no limit on how many times a veteran can apply for an increase in compensation.

## D. METHODOLOGY

## 1. Identifying Predictive Factors

The IDA study team devoted extensive effort during the course of the study to identifying potentially important factors that could influence average disability compensation awards or the percentage of veterans receiving compensation. Not only did we consider the factors identified in the Inspector General's report, but we also consulted other relevant studies and evaluations, including several Government Accountability Office (GAO) reports (see bibliography). We also interviewed VA personnel, including management, senior and junior rating specialists, and trainers, at 11 VAROs. We surveyed and interviewed members of the National Association of State Directors of Veterans Affairs and various members of Veteran Service Organizations.

During our study, we formulated our own hypotheses based on the understanding we gained about VA systems, the rating process, and sources of variation in comparable systems. Finally, we employed data mining and exploratory data analysis techniques to find additional factors and interactions implicit in the data.

## 2. Data Sources

We worked with the VA to identify and collect relevant data on disability compensation recipients and the veteran population. We used the September 2005 snapshot of the Compensation and Pension Master Record (CPMR) as the baseline for our analysis. Note that we excluded a relatively small number of veterans from our analysis who are in VETSNET, but not in the CPMR. To identify historical trends, we also examined previous snapshots of the Master Record, dating back to 1985, as well as VA annual report data, dating back to 1935. We used data from other VA sources such as Beneficiary Information Record Locator System (BIRLS), Rating Board Automation 2000 (RBA 2000), the Systematic Technical Accuracy Review (STAR), appeals data, and the veteran population model (called VetPop). For demographic information, we used data from the VA, the Bureau of the Census, and a variety of other sources.

## 3. Attributing Variation to Factors

From the hypotheses and data, we attempted to isolate and quantify the amount of variation across states attributable to states having a different mixture of veterans and compensation recipients. To do this, we identified key demographic factors at the
national level and grouped veterans according to those factors. We then used statistical techniques to quantify how much of the observed variation among states is accounted for by these factors.

Finally, we examined the adjudication process for evidence that could have resulted in persistent regional differences in rating behavior.

## E. SUMMARY OF FINDINGS

Many factors distinguish one state from another. Among these are differences in the compositions of the veteran and general populations. It would be unreasonable to expect states to have exactly the same average compensation or percentage of veterans receiving compensation.

We found that the average award in a state is almost entirely driven by the proportion of recipients who are receiving maximum awards. Specifically, the proportion of recipients in a state receiving Individual Unemployability (IU) is the single most significant explanatory variable.

We found that, nationwide, from $50 \%$ to $70 \%$ of the observed variation across states is associated with the mix of claim recipients in each state. Differences across states in the mix of claims involving post-traumatic stress disorder (PTSD), power of attorney (POA) representation, and period of service (POS) account for half of the observed variation in average awards across states. We note that these different mixes across states may be due to differences in the mix of eligible veterans, differences in application rates, or differences in grant rates across VAROs.

We found that the percentage of veterans receiving compensation is primarily driven by state-to-state differences in application rates. Much of the observed variation can be attributed to differences in veteran population demographics across states, particularly the number of retirees.

We analyzed the VA adjudication process, including training and rating, and found reasons to expect persistent regional differences in adjudication results.

## II. VARIABILITY IN AVERAGE DISABILITY COMPENSATION

## A. SUMMARY DATA

Our first area of study concerns differences across states in the average disability compensation to veterans. To understand the question under investigation, we consider a few different representations of average compensation data across states.

As of 2005 , the average compensation to all veterans was $\$ 8,890$. However, the average compensation for individual states varies widely. As Figure 2 shows, the state average compensation ranges from more than $\$ 12,000$ in New Mexico to less than $\$ 8,000$ in Ohio. We identify reasons for this variability in our study.


Figure 2. State Average Compensation in FY 2005

Figure 3 shows the distribution of state average compensation. We grouped states according to their average compensation in 2005. The horizontal axis shows the groups. The first group is $\$ 7,500-\$ 8,000$. The groups increase in $\$ 500$ increments up to the last group, which is $\$ 12,000-\$ 12,500$. The height of the bar indicates the number of states in each group. From this distribution, we can see that average compensation is skewed toward having high average compensation with a cluster of seven states above \$10,500.


Figure 3. Distribution of Average Compensation

Figure 4-a map that groups states by average award-shows yet another perspective. The map reflects geographical patterns in average compensation that suggest demographic characteristics or cultures in different regions could be influencing average compensation.

## B. HISTORICAL ANALYSIS

Is variation across states a new phenomenon? Has this level of variation existed for several years? To answer these questions, we analyzed state average compensation back to 1935 . Figure 5 shows that average compensation in constant dollars has generally increased since World War II.


Source: Compensation and Pension Master Record, 2005, Average Compensation.
Figure 4. Average Compensation in 2005


Figure 5. Historical Average Compensation

Although average compensation is at an all-time high, the variation across states has not mirrored this trend. Figure 6 plots the coefficient of variation, a relative measure of variability, in average compensation across states over 70 years. ${ }^{3}$ These data indicate that the observed variation across states has existed at or near current levels for at least the past 35 years.


Figure 6. Coefficient of Variation for Average Disability Compensation across States

[^1]
## C. NATIONWIDE GROUPINGS OF COMPENSATION RECIPIENTS

Several factors may affect a disability compensation award. The most obvious factor is the nature and severity of the service-related condition. For example, one would not expect a veteran paralyzed by a spinal injury to receive the same award as a veteran with moderate hearing loss.

To illustrate, suppose we divide compensation recipients into groups. We put all paralyzed veterans in one group, all veterans with hearing loss claims in another group, and the remaining compensation recipients in a third group. If we compute the average compensation for veterans in each group, we'd likely find that the average compensation is different for each of the groups.

In our analysis we frequently used the technique of arranging compensation recipients into groups and examining:

- The extent to which there is variation across states in the percentage of recipients in a particular group; and
- The extent to which there is variation across states in the average compensation awards to recipients within a group.

To illustrate this, consider an example where we divide compensation recipients nationwide into three groups and calculate the nationwide average compensation awards for all recipients in each group. Figure 7 illustrates.


Figure 7. Nationwide Average Compensation Awards for All Recipients

Now suppose that we find differences across states in the percentage of compensation recipients from each of the groups, as follows:

State A
$80 \%$ of recipients are from Group 1 $10 \%$ of recipients are from Group 2 $10 \%$ of recipients are from Group 3

## State B

$10 \%$ of recipients are from Group 1 $10 \%$ of recipients are from Group 2 $80 \%$ of recipients are from Group 3

Assume that each state's veterans receive the nationwide average compensation for their group. That is, in each state, veterans in Group 1 average $\$ 20,000$, veterans in Group 2 average $\$ 10,000$, and veterans in Group 3 average $\$ 5,000$. This assumption implies that for veterans within any particular group, their average award does not depend on which state they live in.

In our example, $80 \%$ of the recipients in State A are from Group 1 (average of $\$ 20,000$ ). Conversely, $80 \%$ of the recipients in State B are from Group 3 (average of $\$ 5,000)$.

From this information, we can calculate for both states the average awards to all recipients:

$$
\begin{aligned}
& \text { State } A=.80 \times(\$ 20,000)+.10 \times(\$ 10,000)+.10 \times(\$ 5,000)=\$ 17,500 \\
& \text { State } B=.10 \times(\$ 20,000)+.10 \times(\$ 10,000)+.80 \times(\$ 5,000)=\$ 7,000
\end{aligned}
$$

The large difference in average awards for State A and State B exists, even after assuming that veterans within a group are treated the same in State A and State B. The reason for the difference between is that each state had a different mix of compensation recipients among the three groups in this example.

In our analysis, we attempted to quantify the impact of various factors on the observed variation across states. For many of the factors we examined (e.g., POS), we identified a nationwide difference in average compensation awards. For instance, we found an observed difference between average awards for Vietnam veterans and World War II veterans. For these factors, we show different mixes of veterans across states would affect the total state averages. Specifically, we attempted to quantify the amount of the variation that is accounted for by different mixes of compensation recipients in each of the states.

We used the following methodology to quantify the variation explained by different proportions of compensation recipients:

1. Group veterans based on the identified factors, such as POS or type of disability.
2. For each state, assign to each group the nationwide predicted average award for their group.
3. Calculate predicted state averages based on the proportion of recipients in each group in the state.
4. For each state, compute the variation (squared difference) between the predicted state average and the actual state average and then sum the variation for all states to get the total remaining variation.
5. Take the total remaining variation and divide it by the total variation across states in the actual data. This yields the percentage of variation remaining.
6. The percentage of variation explained $=1$ - the percentage of variation remaining.

There are a few points worth noting before we proceed. The differences across states in the proportion of recipients in a group may be due to differences in the number of eligible veterans, the application rates, or the grant rates. These differences are thus not simply inherent in the system.

Also, we identify factors in which there are observed nationwide differences across groups. We do not make any judgment as to whether any observed nationwide difference within a factor is correct, desired, or justified. We simply note that the difference exists, and we quantify how much of the total observed variation across states is explained by different mixes of recipients in each of the states.

Finally, we note that a strong correlation between a factor and the average award amount may not reflect cause and effect. For example, veterans represented by Paralyzed Veterans of America (PVA) receive higher average awards than veterans represented by other service organizations, but this is because PVA primarily serves veterans with a particular class of severe disabilities.

## D. PRIMARY OUTCOME GROUPS

Payments to veterans are based on overall disability level, from $0 \%$ to $100 \%$ in increments of $10 \%$. Figure 8 shows the payment rate associated with each combined degree of disability. Note that the payments have a non-linear increase (e.g., payments for a combined degree of disability of $100 \%$ are more than twice that for a $70 \%$ rating). In addition, veterans may qualify for additional payments for such things as IU, special monthly compensation (SMC), and dependents. As it turns out, the variability in state averages is almost entirely captured by the following three simple, mutually exclusive outcome groups: (1) IU, (2) 100\% no IU awards, and (3) 0 to $90 \%$ no IU awards.


Figure 8. Payment Rate by Combined Degree of Disability in 2005

Figure 9 shows the distribution of recipients and compensation dollars for each primary outcome group. Veterans receiving IU (221,676 recipients) or $100 \%$ awards (228,364 recipients) make up a small percentage (17\%) of all compensation recipients, yet they receive the majority (58\%) of the total compensation dollars.

For the three primary outcome groups, we found:

- The dollar difference between the average award for 0-90\% awards and that for $100 \%$ or IU is substantial. The average IU award $(\$ 29,025)$ and the average $100 \%$ award $(\$ 31,615)$ are both substantially larger than the average $0-90 \%$ award $(\$ 4,476)$.
- Within each of the three primary outcome groups, the average awards across states are relatively consistent, as Figure 10 shows. This indicates that the majority of the observed variation across states in average disability compensation awards is not due to inconsistent treatment of veterans within any of the primary outcome groups, but rather to variations in the proportion of veterans in each group.
- The percentage of compensation recipients in each primary outcome group varies substantially across states, as Table 1 indicates. In particular, there is large variability across states in the percentage of compensation recipients with IU.


Figure 9. Percentage of Compensation Recipients and Percentage of Total Dollars for Compensation Claims in Each Primary Outcome Group


Note: The states are arranged left to right in decreasing order of average compensation dollars for all recipients.

Figure 10. Average Dollars by Primary Outcome Group

Table 1. Differences in Percentages of Recipients in Primary Outcome Groups

|  | Percentage of Recipients | Standard Deviation | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: |
| 0-90\% no IU | 82.9\% | 4.2\% | 69.9\% | 89.2\% |
| 100\% no IU | 8.7\% | 1.5\% | 5.2\% | 12.2\% |
| IU | 8.4\% | 3.1\% | 3.2\% | 19.9\% |

We measured the percentage of the variation across states explained solely by differences in the percentage of compensation recipients in each primary outcome group. We found that the three primary outcome groups explained $93.7 \%$ of the observed variation.

In the following sections we explore in greater detail IU awards and 100\% awards.

## 1. Individual Unemployability

The data show large variation across states in the percentage of compensation recipients receiving IU. The range for IU goes from a low of 3.2\% of compensation recipients in Maryland to a high of $19.9 \%$ of compensation recipients in New Mexico. (Figure 11 shows the percentage of compensation recipients with IU for each state.) The difference across states in the percentage of compensation recipients receiving IU accounts for $73.9 \%$ of the observed variation in average compensation dollars.

Many raters we interviewed identified the decision to award IU as one of their more subjective decisions. Further analysis was necessary to determine what drives the number of IU recipients in a state. To be eligible to receive IU, veterans must, in almost all cases, meet the schedular requirement of having either a single disability issue rated at least $60 \%$ or a combination of issues rated at least $70 \%$ with at least one issue rated at least $40 \%$. In addition, the rater must determine that the veteran is "unable to secure and follow a substantially gainful occupation by reason of service-connected disabilities."4

We investigated the relative importance of these two elements in explaining variation across states in the percentage of veterans receiving IU. We found:

- The main source of variation is differences across states in the percentage of the compensation recipients meeting the schedular requirements for IU.
- Less important, but still significant, is the difference across states in the ratio of IU recipients to veterans meeting the schedular requirement.

Figure 11 shows these two components by state. Each bar represents the percentage of compensation recipients who meet scheduler requirements, and is broken down by those receiving IU and those not receiving IU.

We note from Figure 11 that the range of compensation recipients meeting the schedular requirement for IU varies from a high of $23 \%$ in New Mexico to a low of $8 \%$

[^2]in Delaware. We also note that the ratio of IU recipients to veterans meeting the schedular requirement varies from a high of $88 \%$ in Missouri to a low of $38 \%$ in Maryland.


Figure 11. Percentage of Veterans Meeting Schedular Requirement for IU by State

## 2. Awards for $\mathbf{1 0 0 \%}$ Disability

In addition to looking at IU, we examined the effect of $100 \%$ awards. Table 2 shows the summary data for $100 \%$ awards.

Table 2. Average Compensation Statistics for 100\% Awards

|  | Number of Recipients | Average Dollars | Standard Deviation | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 100\% (no IU) | 228,364 | \$31,615 | \$427 | \$30,329 | \$32,492 |
| All Others | 2,408,615 | \$6,736 | \$1,014 | \$5,511 | \$10,201 |
| All Veterans | 2,636,979 | \$8,890 | \$1,169 | \$7,556 | \$12,395 |

We found little relative variability across states in average compensation paid to $100 \%$ awards. This is not surprising, because the dollar award for $100 \%$ is specified by statute. The only notable differences among $100 \%$ awards are adjustments for dependents and additional SMC awards. We also found less variability across states in the percentage of recipients rated $100 \%$ than for the percentage of recipients with IU. The percentage of recipients rated $100 \%$ ranges from a low of $5.2 \%$ to a high of $12.2 \%$.

We found that the differences across states in the percentage of recipients receiving $100 \%$ awards account for $40 \%$ of the observed variation across states.

## E. NATIONWIDE FACTORS AFFECTING AVERAGE AWARDS

In the previous section, we looked at outcomes such as whether a veteran is rated at $10 \%$ or $100 \%$. We partitioned those outcomes into three primary groups that account for over $93 \%$ of the observed variation. Outcome groups track closely with average dollars because they relate almost directly to award amounts as specified by law.

In this section, we delve deeper and examine nationwide factors that implicitly affect outcomes and, in turn, average dollars. These factors relate to various population and claim characteristics. For example, the type of injury is a factor that is not an outcome, but affects the outcome and award.

Examples of the factors we identified that could affect average compensation awards follow:

- Type of disability (diagnosis code, primary body system),
- Number of disabilities (distinct diagnosis codes),
- POS,
- Age,
- Gender,
- Officer versus enlisted,
- Years of service,
- Retiree status,
- POA representation,
- Time since original disability award, and
- General public health attributes of the veteran's county of residence.


## 1. Factors Affecting Variation across States

The factors we identified that had the most explanatory power for differences across states in average compensation awards were:

- Veteran demographic or claim characteristics:
- PTSD (yes or no);
- POA (yes or no); and
- POS.
- General population characteristics:
- Median family income in the veteran's county of residence;
- Percentage of the population with a physical or mental disability in the veteran's county of residence; and
- Population density of the veteran's county of residence.

We examined the effect of numerous other factors that turned out to have little or no explanatory power on differences across states in average disability compensation awards. Examples of these other factors are:

- Retiree status,
- Time on the disability rolls,
- Gender,
- Branch of service,
- Number of dependents,
- SMC,
- Amount of outreach in the veteran's state (as measured by several different metrics), and
- Other general demographic characteristics of the veteran's county of residence.

Some of these factors may influence individual veterans’ awards or even have a strong nationwide trend. However, they do not explain a significant portion of observed variation across states in average compensation awards.

## 2. Veteran Demographic- and Claim-Related Factors

## a. Post-Traumatic Stress Disorder

Over 200,000 veterans currently receive compensation for claims related to PTSD. These claims average over $\$ 20,000$ per year, which is nearly three times the national average for other claims. As a result, PTSD awards have a disproportionate effect on state and national average award amounts.

The rating system characterizes claims by primary body systems. For our analysis, we separated PTSD claims from other mental disabilities. Most VA personnel we interviewed suspected that PTSD awards are highly variable because of the perceived subjectivity in those decisions. Surprisingly, average PTSD awards by state showed significantly less relative variability across states than awards for other body systems.

However, because of the large average dollar amounts involved, even a small relative variability can cause significant absolute differences, as measured in dollars. The difference between the highest state average PTSD award and the lowest is about $\$ 7,000$. This range is similar to the range for cardiovascular awards, even though cardiovascular awards show more than twice as much relative variability as PTSD awards do.

While these differences do contribute slightly to the observed variation across states, we found this is not the main impact of PTSD on observed variation. All states average high awards for veterans with PTSD. The main impact of PTSD is in differences across states in the proportion of compensation recipients with a PTSD award. Figure 12 shows the proportion of compensation recipients with a primary award for PTSD. We found that $39.8 \%$ of the observed variation in average award across states is accounted for by differences in the proportion of award recipients with PTSD.


Figure 12. Proportion of Compensation Recipients with a Primary Award for PTSD

## b. Power of Attorney

POA representation is extremely significant in individual veteran awards. Nationwide, veterans with POA representation receive an average annual award of $\$ 11,162$, while veterans with no POA receive an average of $\$ 4,728$.

We examined reasons for the large differences between awards with and without a POA. We found that the claims with a POA averaged a higher number of issues per claim. In addition, the average degree of disability awarded was higher with a POA. However, the main impact of POA representation was that the veteran was much more likely to receive IU.

Nationwide, $64.7 \%$ of claims have POA representation. Across states, the percentage ranges from a low of $44.8 \%$ of claims in Maryland to a high of $81.9 \%$ of claims in North Dakota.

While POA is an important predictive factor at the individual veteran level, we were interested in quantifying the impact of POA representation on the observed variation across states in average disability compensation awards.

We found that differences across states in the percentage of claims with POA account for $15.5 \%$ of the variation in average award across states.

## c. Period of Service

POS is also a significant predictive factor nationwide. Vietnam veterans are the distinctive group, receiving an average annual award of $\$ 11,670$. In contrast, the average award for non-Vietnam veterans is $\$ 7,410$. Average award for a Gulf War veteran is $\$ 6,506$, the lowest for any POS. As a result, states with a disproportionate number of Vietnam or Gulf War veterans will show higher or lower overall average awards, other things being equal.

We examined the variation across states of award amounts within each POS. We found that the relative variability in awards was similar for all periods of service, and similar to the relative variability of all awards.

As a single predictive factor, differences across states in the POS of recipients accounts for $8.2 \%$ of the observed variation in average awards.

## d. Combined Effect

We grouped veterans by the three main factors we identified, PTSD, POA, and POS. We then computed the variation in average disability compensation awards due to differences across states in the percentage of recipients in each group. We found that half of the variation across states is explained by these three factors. That is, assuming
veterans in each group are treated uniformly across all states, $50 \%$ of the observed variation is due to states having different mixtures of compensation recipients.

Note that we cannot simply add the percentage of variation explained by each single factor to calculate their combined explanatory power. These factors are correlated and it would not be meaningful to sum their individual percentages of variation explained.

## 3. Population Demographic Factors

Several demographic factors related to the veteran's county of residence proved to have significant predictive power. While these observed correlations may be of interest, it is important to be careful in interpreting them; they almost certainly do not reflect direct causal relationships. In particular, they may be correlated with each other and with more direct factors already accounted for elsewhere in the model.

Demographic factors accounting for significant variability across states include:

- County median family income (30.1\% variation explained);
- County percentage population with mental disability (28.4\% variation explained);
- County percentage population with physical disability ( $20.6 \%$ variation explained); and
- Population density (18.1\% variation explained).

When combined, these factors did not account for significantly more variation across states than the best of them singly, which implies that they are strongly correlated.

## 4. Multiple Factor Analysis

We combined the most significant county demographic variables with the previously identified major direct external factors (PTSD, POA, and POS) in a series of predictive models. The combined predictive model based on group average awards for combinations of the six factors accounts for $61.1 \%$ of the variation across states.

The most complex model we investigated was a full Analysis of Covariance (ANCOVA) model. We incorporated categorical factors, such as all primary body system categories, POA, and POS, and continuous factors, such as median family income, population density, and county disability rate. This model considers all main effects and two-way interactions, and it accounts for $68.7 \%$ of the observed variation across states.

This suggests that as much as $70 \%$ of the observed variation across states may be attributable to differences in the recipient populations in the various states.

## 5. Factors with a Minor Effect on Observed Variability

As previously mentioned, we examined numerous other factors that turned out not to explain much of the observed variation in disability compensation awards across states. We comment briefly on two of these factors, military retiree status and time on the rolls, because they were frequently mentioned during our interviews as likely to be major factors.

## a. Military Retirees

Our analysis revealed that military retirees with greater than 20 years of service received lower average compensation than non-military retirees. Top-level data seemed to show that military retirees receive higher average awards than non-retirees. The over 800,000 compensation recipients identified in VA databases as military retirees average awards of $\$ 9,807$, approximately $\$ 1,300$ more than that for the 1.8 million non-retiree compensation recipients.

Also, we found significant variation across states in the percentage of recipients that are military retirees, from a low of $12.3 \%$ to a high of $51.4 \%$. Based on these data, we tested the following hypothesis: states with a high percentage of compensation recipients that are military retirees should have higher state average awards.

Our analysis indicated that there is almost no relationship between average dollars and percentage of compensation recipients that are military retirees. In looking further into the data, we found the reason for this lack of correlation. According to the VA data, about $20 \%$ of the veterans identified as military retirees have less than 15 years of service. These veterans receive on average $\$ 16,771$, which is almost $\$ 8,000$ more than the average for all recipients. These veterans are likely to be disability retirees. Retirees with more than 20 years of military service actually average $\$ 7,721$, about $\$ 1,100$ under the national average awards for all veterans. This is shown in Figure 13.

The majority (over 70\%) of military retiree compensation recipients have over 20 years of service. States with high percentages of military retirees likely have more retirees in this group, and they receive on average less money than non-retirees. This helps explain our finding that states with a high percentage of military retirees do not have higher average compensation.


Figure 13. Average Dollars for Retirees by Years of Service

We note that recent legislation allows certain groups of veterans to receive concurrent retirement and disability pay. The full effect of this legislation may not appear in 2005 data.

## b. Time on Rolls

Most veterans that receive a compensation award in a given year stay on the rolls in subsequent years. Thus, when examining the average compensation dollars in a year, we found that the majority of the compensation recipients actually received their initial award in prior years. As of 2005, approximately $60 \%$ of the compensation recipients had been on the rolls for more than 10 years and $40 \%$ had been on the rolls for more than 20 years.

Figure 14 shows (for 5-year increments between 1985 and 2005) the number of compensation recipients, broken down by the year they first entered the rolls. We see that even over a 5 -year time frame, the veterans receiving an initial compensation award constitute a small percentage of all recipients.

If the only change in a state from year to year were the addition of new compensation recipients, it would not be surprising that the overall total averages by state do not change much from year to year. However, our analysis indicated that the compensation recipients that have stayed on the rolls have seen a sizeable increase in their average compensation awards. This increase, shown in Figure 15 in constant dollars, shows that average compensation awards to existing recipients have grown significantly, even after accounting for cost-of-living adjustments.


Figure 14. Number of Compensation Recipients by Time on Rolls


Figure 15. Average Compensation by Time on Rolls

We found that differences across states in the time on the rolls for the compensation recipients did not explain any of the observed variation in average disability compensation awards.

## F. SUMMARY OF FINDINGS

The following summarizes our findings for variation in average award.

1. Variability in average dollars across states is primarily driven by differences in the percentage of recipients with maximum awards. As of September 2005, approximately $17 \%$ of the roughly 2.6 million compensation recipients
nationwide were receiving either $100 \%$ awards or IU ratings. However, this group of recipients accounted for $58 \%$ of all compensation dollars. We found that over $90 \%$ of the variation across states in average disability compensation is explained by differences in the percentage of compensation recipients in a state receiving either $100 \%$ or IU.
2. From $50 \%$ to $70 \%$ of the variation across states is associated with the mix of identified characteristics among claims by recipients in each state. In our analysis, we grouped compensation recipients with similar characteristics. We then determined if there were nationwide differences in average compensation awards among the various groups. We calculated that from $50 \%$ to $70 \%$ of the observed variation across states is due to states having different proportions of compensation recipients in the identified groups. We note that these different mixes across states may be due to differences in the mix of eligible veterans, differences in application rates, or differences in grant rates at the VAROs.
3. Variability across states exists that is not associated with differences in the mix of claim recipients. Considerable variation exists that is unexplained by the different factors we identified. Some or all of this remaining variation may be due to regional differences in adjudication. In addition, regional differences in application rates and grant rates could affect the proportions of awards for different claim types.

## III. VARIABILITY IN THE PERCENTAGE OF VETERANS RECEIVING COMPENSATION

## A. SUMMARY DATA

For the second area of study, we investigated variation across states in the percentage of veterans receiving compensation. Figure 16 illustrates the magnitude across states of the percentage of veterans receiving compensation, ranging from Alaska at nearly $18 \%$ to Illinois at $7 \%$. The relative variation across states is approximately $50 \%$ greater than the relative variation for average compensation. Average compensation and the percentage of veterans receiving compensation across states shows a weak positive correlation.


Figure 16. Percentage of Veterans Receiving Compensation across States

In a different view of the variation, Figure 17 shows the distribution of the percentage of veterans receiving compensation across states. With the exception of Alaska at almost $18 \%$, states are clustered in the range of $7 \%$ to $15 \%$. Their distribution appears to be closer to a standard bell curve than the distribution for average dollars.


Figure 17. Histogram for Percentage of Veterans Receiving Compensation

In Figure 18, we display a map that partitions states into four groups according to percentage of veterans receiving compensation. The map shows regional clusters of states with similar percentages. This geographical trend led us to investigate possible links between demographic factors and the percentage of veterans receiving compensation.

## B. HISTORICAL ANALYSIS

As with average compensation, we were able to analyze historical trends in the variation of the percentage of veterans receiving compensation. Figure 19 shows the population of compensation recipients over time, by POS, over a 70-year span. An abrupt increase in the number of compensation recipients occurred shortly after World War II. Otherwise, changes in the total number of recipients have generally been gradual.

In Figure 20, we see the relative variation in the percentage of veterans receiving compensation across states over time. The current level of relative variation is the same as it was 45 years ago. Note that in 1960 the majority of compensation recipients were World War II veterans (76\%), but only $14 \%$ of the 2005 recipients are World War II veterans. The relative variability in 2005 is almost the same as it was in 1960, despite the turnover in recipients.


Source: Compensation and Pension Master Record, 2005, and VetPop 2004.
Figure 18. Percentage of Veterans Receiving Compensation in 2005


Figure 19. Compensation Recipients by POS


Figure 20. Coefficient of Variation for Percentage of Veterans Receiving Compensation

## C. APPLICATION RATES

Influences on state variation in the percentage of veterans receiving compensation can be separated into two main factors, application rates and adjudication decisions. We were first interested in identifying the impact of differences in application rates on the observed differences in the percentage of veterans receiving compensation.

The Veterans Benefits Administration (VBA) does not track the data necessary to explicitly test for these effects. For example, VBA does not track denied claims. However, we were able to approximate application rates and acceptance rates using available data on initial awards and claims completed over the past 10 years. Figure 21 shows the first-time claims completed at each VARO compared to the estimated percentage of veterans receiving an initial award. We used first-time claims completed at a VARO as a proxy for the number of veterans applying for initial compensation awards.

We found that, over the 10-year window, differences in numbers of claims completed explain more than $70 \%$ of the VARO variation. This indicates that differences in application rates are a key driver of the observed differences in the percentage of veterans receiving compensation.

## D. NATIONWIDE FACTORS

In this section, we explore factors that possibly influence variation across states in the percentage of veterans receiving compensation. We outline significant findings for individual factors.

Data limitations, particularly for the location and composition of the veteran population and the nature of rejected claims, prevented us from computing a combined effect for multiple factors.

## 1. Military Retiree Status

Military retiree status influences the percentage of veterans receiving compensation more than any other demographic or external factor with available data. Even after we removed approximately 169,000 retirees estimated to be disability retirees (and thus nearly certain to be receiving compensation), the percentage of military retirees receiving compensation (35.7\%) was over four times the percentage of non-retirees receiving compensation (8.2\%).

The proportion of state veteran populations with military retiree status accounts for $40.9 \%$ of the variation across states.


Figure 21. Percentage of Population with Initial Completed Claim and First-Time Award

## 2. Period of Service

The percentage of veterans receiving compensation also varies by POS. Veterans from the Gulf War receive compensation at the highest rate (15.2\%) followed by veterans from the Vietnam era (11.9\%). Veterans from the Korean conflict had a percentage of veterans receiving compensation (5.6\%) at nearly half of the national rate (10.8\%). Veterans from World War II (10.1\%) and peacetime (9.5\%) were slightly below the national average.

Differences in state veteran populations by POS account for $12.0 \%$ of the variation across states.

## 3. Veteran Density

To identify areas with a high concentration of veterans, we divided the veteran population by the general population in each county. Counties were separated into two groups, low-density counties and high-density counties. In our study, veteran density is the most significant general population demographic factor related to the percentage of veterans receiving compensation. Of the veterans in high-density counties, $13.4 \%$ receive compensation, compared to $9.5 \%$ in low-density counties.

Veteran density accounts for $27.3 \%$ of the variation across states. We also found a strong positive correlation between veteran density and military retiree status.

## E. GENERAL POPULATION FACTORS

In addition to factors specific to veterans, we investigated demographic characteristics specific to certain counties.

## 1. Population Density

Another hypothesis we investigated is that urban and rural areas have a different percentage of veterans receiving compensation. We used population density as a measure for distinguishing urban from rural counties, dividing the general population by the square miles of land area. We partitioned counties into groups of low, medium, and high population density.

We found that urban areas have a lower percentage of veterans receiving compensation. Of veterans in counties with a high population density, $9.9 \%$ receive
compensation, compared to $11.1 \%$ in low-density counties and $11.5 \%$ in medium-density counties.

Population density accounts for $9.1 \%$ of the observed variation across states.

## 2. Median Family Income

We divided median family income by county into low, medium, and high groups. In areas with high median family income, a lower percentage of the veteran population receives compensation. Of veterans in high-income counties, $9.7 \%$ receive compensation, compared to $11.0 \%$ in medium-income counties and $12.6 \%$ in low-income counties.

Median family income accounts for $8.9 \%$ of the variation across states in the percentage of veterans receiving compensation.

## 3. General Population Health Statistics

For general population health statistics, the most significant general population factors were prevalence of mental and physical disabilities. We divided prevalence of mental and physical disabilities into low, medium, and high groups. Mental and physical disability rates are highly correlated and each accounts for $3.6 \%$ of the variation across states.

## 4. Factors with Limited Data

Sufficient data on the veteran population and denied claims are not available to perform similar analysis for some factors of potential interest. For example, at the national level, $12.4 \%$ of Army veterans receive compensation, while $8.3 \%$ of Navy veterans receive compensation. However, estimates for state veteran populations by branch of service are not available to analyze variation across states. Similarly, data suggests that a higher percentage of officers receive compensation than enlisted personnel, but limited data does not allow a thorough analysis. Also, the relatively small size of the officer population prevents it from being a significant factor influencing variation.

## F. SUMMARY OF FINDINGS

The following summarizes our findings for variation in the percentage of veterans receiving compensation:

1. Application rates appear to be the key driver for variation across states in the percentage of veterans receiving compensation. Two top-level factors influence the percentage of veterans receiving compensation. These factors are application rates and adjudication results. Of these two factors, we found application rates to be more important than adjudication results in explaining variation across states.
2. Differences inherent to state veteran populations account for much of the observed variation. Military retiree status alone accounts for more than $40 \%$ of observed variation across states. Other single demographic and external factors account for some of the variation as well. However, available veteran population data and demographic information on all applicants are insufficient to quantify the total variation accounted for by the combination of these factors.
3. A weak positive correlation exists between average compensation and the percentage of veterans receiving compensation. We examined the relationship between average compensation and percentage of veterans receiving compensation and found only a weak positive relationship between the two.

## IV. ADJUDICATION PROCESS AND CONSISTENCY

We found that differences in the recipient populations across states accounted for much of the observed variation across states in both average disability compensation awards and the percentage of veterans receiving compensation. We noted that differences in the percentage of veterans receiving compensation may be due in part to differing grant rates at the VAROs. In addition, remaining variation exists that may be due to regional differences in rating behavior. We examined the structure of the adjudication process to identify any areas that may have produced persistent regional differences in ratings given to veterans.

## A. ADJUDICATION

Rating specialists make adjudication decisions locally at each of the 57 VAROs. After speaking with over 30 raters from 11 VAROs, we identified several areas where decisions call for subjective judgment, including granting service connection, awarding IU, and determining degree of disability for certain ailments.

In awarding service connection, every case is not clear-cut, particularly for older veterans. Also, procedures for granting IU awards do not appear to be uniform across all VAROs. Finally, while the law is specific in guiding degree of disability assignment for many claims, others require subjective judgments (e.g., judging mild, moderate, or severe pain on motion). Several of the raters we spoke with believed that some of the rating guidelines were open to interpretation. In choosing the final appropriate action, raters often consult with their mentors or colleagues within their offices. Naturally, this creates cultural rating norms within each VARO, promoting possible differences across offices.

After veterans are notified of their disability determinations, they have the option to file an appeal, which is initially reviewed by the veteran's VARO. Appeals officers, like raters, are likely to treat similar subjective issues the same way over time, which could potentially lead to regional differences.

Medical examination from a VA or QTC (contracted) doctor is one of the early steps in the disability compensation process. The examinations are conducted locally. The exam location is assigned to the veteran by the VARO, usually according to the zip
code of the veteran's residence. While we were unable to examine the quality and consistency of medical examinations within the scope of this study, we point out that it is a potential source of inconsistency. Many raters we interviewed indicated that the information they received from a medical exam is sometimes insufficient for them to make an accurate rating decision.

## B. CONSISTENCY AT THE LOCAL LEVEL

We identified two main activities that could promote consistency among rating decisions at the local (VARO) level. They are:

- Training (both initial and ongoing), and
- The local quality review process.

We found that the training provided to raters varies by VARO and has changed over time. Some raters received national orientation while others were trained only in their local office. Additionally, the duration and rigor of training for new rating specialists varies by VARO. Currently, training is done using computer modules developed by VA Central Office (VACO). However, many trainers we spoke to indicated that they supplement the material provided by VACO with material developed locally.

In addition, most raters we spoke to indicated that a main source of learning was on-the-job training (often with support of a mentor) that occurs within the VARO in which they begin adjudicating claims.

Another process that promotes intra-office consistency is the local quality review process, which is the method of checking accuracy of raters within the VARO. Typically one reviewer in each VARO, though not every VARO, evaluates about five claims per rater per month at random to verify the accuracy of the claim adjudication.

In VARO interviews, we were told that the review focuses mostly on accuracy of the adjudication other than degree of disability (e.g., Were all the issues addressed? Was the effective award date correct?). These questions are important to the individual claimant and can influence the ultimate payment. However, accuracy of the degree of disability decision has a direct impact. Quality review addresses degree of disability only if the adjudication is egregiously incorrect. We were told that small discrepancies (e.g., $30 \%$ versus $50 \%$ ) between the rater's adjudication and the reviewer's judgment are deemed a "difference of opinion."

VARO management has some ability to promote consistent ratings within the VARO. Typically, this has been accomplished through periodic staff meetings and training sessions.

## C. CONSISTENCY AT THE NATIONAL LEVEL

Several studies have examined consistency across VAROs. These include a study by the National Academy of Public Administration, the VA Claims Processing Task Force Report to the Secretary of Veterans Affairs, the OIG Report on state variances, and at least two GAO studies. Each of these studies indicated that there is the potential for inconsistencies across VAROs.

Our study also found that the process could lead to inconsistencies across VAROs. We found few activities that would promote consistency at the national level. The majority of feedback to raters is at the local level. Raters have little, if any, formal contact with raters in other VAROs. They have no way of knowing how employees in other offices might rate a particular claim. In addition, dissemination of regulation changes, court rulings, and VA directives varies by VARO. Furthermore, for subjective aspects of the rating schedule, there are insufficient processes in place to insure consistency across VAROs. For these reasons, we found that in practice the VAROs are largely independent.

The national STAR review is the main instrument the VA uses to monitor the accuracy of rating decisions. It measures the accuracy of claims for each VARO. However, the OIG Report found that STAR reviewers do not identify or analyze rating inconsistencies among raters or states. We also found that the current STAR program is insufficient as a tool to promote consistency in rating decisions across VAROs. For example, the national STAR review samples a small number of claims adjudicated in each office. We found that there is a large variety of claim types (e.g., PTSD claims, IU decisions, and tinnitus) and levels of rater experience. A statistically significant sample in each subset is needed to be able to identify problems.

Most of the errors reported in the STAR reviews are errors not directly related to degree of disability the rater assigns for an issue. We found that raters received hardly any feedback from STAR on their decisions on degree of disability. In addition, we found no evidence that STAR gave VAROs sufficient feedback on consistency in ratings across states.

VARO management has typically focused primarily on production goals (e.g., average days pending and number of pending claims) and, to some extent, accuracy goals (STAR). Until recently, VARO management made little effort to monitor consistency in rating decisions across VAROs.

## V. RECOMMENDATIONS

We found in this study that much of the observed variation is due to differences across states in the mix of veterans and compensation recipients. However, we identified aspects of the adjudication process that were likely to produce regional differences in adjudication results.

We considered a range of potential corrective actions to improve the consistency of adjudication results. These actions vary in both their obtrusiveness into other VA and VARO priorities and in their effectiveness in promoting consistency in adjudication results.

Based on the results of our study, we make the following recommendations to improve the consistency of the adjudication process:

1. Standardize initial and ongoing training for rating specialists. We found that the methods for providing training to raters have changed over time. Currently, the VACO provides a set of training modules to be used for training. However, many of the VAROs indicated that they supplement the training modules with material developed locally. In addition, most of the raters we interviewed identified on-thejob training, usually from the person assigned as their second signature, as the major influence on their rating style. A stronger mechanism would reduce the potential for persistent regional differences in ratings and ensure that raters nationwide are receiving the same training. For example, we recommend that raters periodically be given standardized test cases chosen from likely areas of variation as part of an ongoing training process. VA identified new initiatives to improve the consistency in training (e.g., challenge classes). We recommend continuing efforts like this to improve consistency in training.
2. Standardize the hospital evaluation reporting process. We found that there may be variability across states in the hospital evaluation reporting process. The current process has the potential to induce regional differences. Many raters identified variations in hospital evaluations as a likely cause of some of the variation in compensation awards. In particular, many raters indicated that the information they receive from a medical exam is sometimes insufficient for them to make an accurate rating decision. However, since they are primarily evaluated on productivity, raters indicated that they are hesitant to request more information or order an additional exam. Variation in medical reporting is probably not limited to differences between VA hospitals and QTC.
3. Increase oversight and review of rating decisions. We recommend that the VA significantly increase the number of claims reviewed nationally. The VA should systematically select claims for review that include many high-leverage cases. These include $100 \%$ awards, awards for IU, and claims meeting the schedular requirement for IU. Denied claims should also be reviewed. In reviewing rating decisions, the VA should evaluate decisions on service connection, degree of disability assigned, and determination of IU status. The VA should develop procedures to provide frequent feedback to VAROs on the results of the review process.
4. Consider consolidating all or selected parts of the rating process into one location. The VA should investigate the feasibility of consolidating the current rating process to a central location. We found that the current adjudication process of using 57 VAROs is apt to produce persistent regional differences in rating results. Consolidating the rating process would remove a large component of potential inconsistencies in rating decisions and make it easier to provide consistent training and evaluation of the rating personnel. Also, raters would be able to specialize in rating particular types of claims.
If consolidation at one location is not feasible, consolidating rating activities to fewer VAROs would help improve consistency in rating decisions. Consolidating the rating activities has been made previously by several groups that have analyzed the VA rating process. In fact, VBA, in its 1995 report on field restructuring, listed several potential benefits of consolidating the rating activities. ${ }^{5}$ One of the benefits identified was improving the consistency of rating decisions.
5. Develop and implement metrics to monitor consistency in adjudication results. We recommend that the VA develop and track a series of metrics measuring adjudication consistency across VAROs. These metrics should not just track VARO performance, but compare adjudication results across VAROs for similar groups of veterans. Specific attention should be given to monitoring the consistency in award types that significantly affect variation across states. For instance, the VA could monthly track the following metrics:

- The percentage of compensation recipients receiving IU;
- The percentage of compensation recipients with a $100 \%$ award;
- The average award for each primary body system;
- The percentage of claims granted service connection broken out by primary body system;
- The percentage of compensation recipients meeting the schedular requirements for IU; and

[^3]- The percentage of compensation recipients with a PTSD award.

Each VARO could be compared to the national average for each metric. If some VAROs are consistently different from the national average, these differences should be further investigated to determine if there are inconsistencies in the adjudication process. However, differences from the national average do not necessarily reflect a problem. These differences could be due to veterans with different levels of disabilities in some states.
6. Improve and expand data capture and retention. The ability to monitor variances in disability compensation is limited by the lack of available data. In some cases, the VA does not track the data. In other cases, data exists, but it is not stored in a readily accessible format. In particular, we note the following areas:

- We identified that differences across states in the percentage of recipients with PTSD is a key factor in explaining the observed variation in compensation awards. These different mixes across states may be due to differences in the mix of eligible veterans, differences in application rates, or differences in grant rates. The VA has not historically kept data on denied claims or application rates. Thus, it was not possible to quantify to what extent the observed differences across states in the percentage of compensation recipients are due to differences in application rates or differences in grant rates. In monitoring the consistency of awards across states, it is important to be able to identify the causes for the identified differences. The policy actions required to address differences in application rates are likely different from the actions required to address differences in grant rates.
- The GAO reported that the recently implemented RBA 2000, which collects disability decision data, could provide a basis for examining inconsistencies in ratings. ${ }^{6}$ We agree with this assessment, particularly since RBA 2000 has data on denied claims. However, our understanding is the RBA 2000 does not currently identify the VA end-product code associated with a claim. Thus, it would be difficult to distinguish denied compensation claims from denied pension claims.
- The VA does not record adjudication results for brokered claims (claims sent from the VARO of record of a veteran to another VARO for rating). Data on the actual VARO that made the rating decision would be beneficial to assessing the consistency of decisions across VAROs.
- Many veterans receiving disability compensation have been on rolls for several years. The VA does not require compensation recipients to notify the VA when

[^4]they move, and many compensation recipients receive their award through direct deposit, calling into question the accuracy of the data on compensation recipients' locations. Inaccuracies in such data will affect the reported statistics for both the average state awards and the percentage of veterans receiving compensation. We recommend that the VA identify ways to improve the accuracy of its recipient location data.

- In addition, we recommend the VA take action to improve the accuracy and availability of data on the size, location, and demographic characteristics of the veteran population. For instance, our analysis of the percentage of veterans receiving compensation was limited by the available data on the existing veteran population. We did not have sufficient veteran population data broken down by state for branch of service and years of service, for example. We also did not have interactions with multiple demographics by state such as retirees by period of service. Some of the few available interactions in VetPop were labeled with the following caution: "Proceed with caution with some cross-tabulations. Specifically, if a variable was determined without reference to another variable, then the cross-tabulation of those variables using the Pivot Table capabilities of VetPop2001Adj should be used with caution."


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## ABBREVIATIONS

| ANCOVA | Analysis of Covariance |
| :--- | :--- |
| BIRLS | Beneficiary Information Record Locator System |
| CPMR | Compensation and Pension Master Record |
| GAO | Government Accountability Office |
| IDA | Institute for Defense Analyses |
| IU | Individual Unemployability |
| OIG | Office of the Inspector General |
| POA | Power of Attorney |
| PVA | Paralyzed Veterans of America |
| POS | Period of Service |
| PTSD | Post-Traumatic Stress Disorder |
| RBA 2000 | Rating Board Automation 2000 |
| SMC | Special Monthly Compensation |
| STAR | Systematic Technical Accuracy Review |
| VA | (Department of) Veterans Affairs |
| VACO | VA Central Office |
| VARO | VA Regional Office |
| VBA | Veterans Benefits Administration |



## 12. DISTRIBUTION AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

## 13. SUPPLEMENTARY NOTES

## 14. ABSTRACT

IDA studied the differences across states in average disability compensation awards and in the percentage of veterans receiving disability compensation. IDA first identified the major national factors that influence disability compensation awards or the percentage of veterans receiving compensation. The study team worked with the Department of Veterans Affairs (VA) to identify and collect available data on compensation recipients and the veteran population. We used various statistical methods to identify the main sources of variation. We found that the prevalence of maximum awards determines state averages, and that $50 \%$ to $70 \%$ of the observed variation in average awards is attributable to differences across states in the veteran population and the nature of the claims submitted. The percentage of veterans in a state that receive compensation is primarily driven by state-to-state differences in application rates. For both average awards and award rates, there are significant state-to-state differences not explained by differences in the makeup of their veteran populations, however. We analyzed the VA rating process, including training and adjudication, and found reasons to expect persistent regional differences in adjudication standards. This first volume of a two-volume report explains IDA's methods, analyses, findings, and recommendations. The second volume contains supporting documentation.

## 15. SUBJECT TERMS

Veterans (Military Personnel); Disability Compensation; Compensation Claims; Department of Veterans Affairs (VA); Claims Process

| 16. SECURITY CLASSIFICATION OF: |  |  |  |
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19a. NAME OF RESPONSIBLE PERSON (Last Name First) Salvaotore, Joe

19b. TELEPONE NUMBER (Include area code) (202) 273-9512


[^0]:    1 Cheryl Reed, "Wounded Warriors" series, Chicago Sun-Times, 2004.
    2 Department of Veteran Affairs, Office of the Inspector General, "Review of State Variances in VA Disability Compensation Payments," Report No. 05-00765-137, May 19, 2005, p. 74.

[^1]:    3 Coefficient of variation is a unitless measure of dispersion calculated as the standard deviation divided by the mean.

[^2]:    4 Title 38 CFR 4.16(a).

[^3]:    5 Veterans Benefits Administration, "Field Restructuring: Progress Report and Transition Year Recommendations," December 1995.

[^4]:    6 Government Accountability Office, "Veterans’ Disability Benefits: Claims Processing Problems Persist and Major Performance Improvements May Be Difficult, Statement of Cynthia Bascetta, Director, Education, Workforce, and Income Security Issues," Testimony Before the Committee on Veterans’ Affairs, U.S. Senate, GAO-05-749T, May 26, 2005.

