December 2012

MEMORANDUM FOR RECORD

FROM: Brian Mork, Ph.D.

SUBJECT: Dual Coverture Value and Simple Military Division Orders, Rev 1.3

> *In Galileo's day, epicycles described an inappropriate complex mathematical description of planetary orbits because society did not accept elliptical sun-centered orbits. Similarly, complexity of military retirement division will remain as long as the legal system is unable to adopt DCV division methods.*

INTRODUCTION

Troyan, Inc. is a Nationally recognized company that prepares QDRO and military division orders for attorneys. A web page[1] written by Mr. William M. Troyan refers to the January 19, 2011 New Jersey Appellate Court decision, Barr v. Barr, and concludes that preparation of orders is now more complicated because the court favored the military member proposal, while denying specifics of the case.[2] Contrary to Troyan's conclusion, I have researched and documented a Dual Coverture Value (DCV) method of dividing military income that is both easier and more versatile than previous methods.

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[1] http://www.troyaninc.com/QDRO/Newsletters/Recent-Case-Law-Coverture-Fraction-Challenged.aspx

[2] Erroneous financial facts were asserted by the Court and used as reasons to deny specific agreement with the military member.

I've written extensively elsewhere[3] about the mathematical and factual errors of the New Jersey appellate decision. In summary, they made a faulty ab-inito assertion about the award of time value of money, failing to identify that both parties would benefit from time-value inflations of dollar amounts while waiting for disbursement of awards. Secondly, they based decisions on a faulty understanding of the Dual Coverture method the military member had asked for. Specifically, they did not distinguish between a fixed dollar amount (which does not change when the base retirement goes up), and a fixed percentage amount (which proportionally does raise the dollar amount every time the base retirement amount changes). These are not judicial errors. They are mathematical errors and factual errors. The embarrassing errors were caused by confusion that could have been eliminated by using simpler DCV methods that yield the same result.

MR. TROYAN'S CLAIMS

Mr. Troyan centers his attention on the division order formulas from the Barr case. He exhibits his understanding of the division method they propose, and states the formula is "acceptable to DFAS and consistent with the known facts of this matter."[4] He then contrasts the Barr court method with his proposed method. By presenting them in complicated ways, he fails to recognize that the two methods produce identical results, which I will demonstrate in this memorandum.

Additionally, Mr. Troyan fails to identify that both methods he exhibits are inequitable because they fail to protect retirement enhancements due to promotions after the marriage—which was the main point of agreement between the New Jersey Court and the military member. I've written extensively on this topic elsewhere.[5] Just like 401(k) contributions after a marriage belong only to the contributor, additional duty and additional actively earned promotion enhancements belong only to the contributor. I am not talking

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[3] http://www.increa.com/articles/division-military-law-and-statute
[4] http://www.troyaninc.com/QDRO/Newsletters/Recent-Case-Law-Coverture-Fraction-Challenged.aspx
[5] http://www.increa.com/articles/division-promotion-enhancement

about passively earned investment-income-like enhancements, which is how some authors such as nationally-recognized attorney Mark Sullivan have confused the situation.

Setting aside value actively earned after marriage is supported by an extensively researched 1998 report by the Department of Defense to Congress. Some states are formalizing this understanding in law, such as Oklahoma's May 2012 law SB1951 Section 3(F). This paradigm makes even more sense when considering ramifications to any future spouse of the military member. If the military member re-marries and is then promoted, which spouse should receive the promotion benefit? Dividing inequitably with the first spouse deprives the spouse who actually sacrificed to earn it.

The defendant in Barr v. Barr asked to not divide promotion enhancements after the divorce, and this is what the DCV methods can do. I have come to believe that Mr. Troyan avoids equitable divisions in situations including promotion after divorce because he is overwhelmed by the (in his opinion) "substantially more complex" variations proposed by the Barr Court. What I will show in this document is that the Barr Court method is identical to his method, BOTH methods are unnecessarily more complex than the DCV methods, BOTH methods are inequitable compared to DCV methods, and the DCV methods are easy!

MR. TROYAN'S DIVISION METHODS

The numbers Mr. Troyan uses from the Barr case in his web page calculations are summarized here for reference:

Points earned before marriage (1968) = 0
Points earned during marriage (D_M) = 4015
Points total for retirement (D_R) = 4779
Rank at divorce (1987) = 9 yr Captain
Rank at retirement (2006) = 20 yr Major
Base pay for retirement (MBP) = $4150/mo

In the section of the Troyan web page titled "Calculation of Reserve Member's Retirement Benefit (Immediate Offset)," Mr. Troyan describes the Barr Court method of calculating the

marital asset using five Roman Numeral steps. He double-labels step III, so I re-labeled the steps here. Notice the steps are simple:

1. Convert marriage points to marriage years
2. Calculate non-military spousal retirement payment using Federal formula

Mr. Troyan's representation of the Barr method can be concisely captured with the formulas:

$$years = \frac{D_M}{360}$$

$$MRPMA = 2.5\% * years * MBP$$

Where
D_M is the duty points during marriage
Years is equivalent years of marriage duty (360 is Federally mandated because the government uses 12 months each of 30 days instead of 365 days per year).
MBP is the monthly base pay
MRPMA is the monthly retirement pay marital asset to be divided

Mr. Troyan acknowledges that the Barr Court then inflated the resultant payment to account for intervening changes in time-value of money, although he does not discuss that part for comparison purposes. He also does not clarify that this method calculates the marital portion, of which only half is paid to the ex-spouse.

Using this formula, let's see how the Barr plaintiff would make out for the first month (later monthly values would go up because the $4150 would go up).

Equivalent married years = 4015/360 = 11.15278
MRPMA = 2.5% * 11.15278 * $4150 = $1157.10
Spousal payment would be half, or $578.55

In order to calculate a coverture fraction (the number needed by DFAS), one has to also calculate the total retirement pay with the Federal formula:

Equivalent retirement years = 4779/360 = 13.275
Total retirement pay = 2.5% * 13.275 * $4150 = $1377.28

The coverture fraction would be the marriage portion divided by the total amount, or $1157.10 / $1377.28 = 0.8401. The formula in the order given to DFAS would be "50% of the disposable retirement income times a coverture fraction of 0.8401." Notice this coverture fraction gives the 42% spousal fraction initially erroneously agreed to by both parties in the Barr case.

In actuality, because the order is written before retirement, DFAS has to calculate the coverture fraction upon retirement, which is acceptable so long as you tell them how to calculate it with numbers you provide or they can get. If you combine all the equations above, you can see the coverture fraction, C, is calculated simply:

$$C = \frac{MRPMA}{TotalRetirement} = \frac{2.5\% * \frac{D_M}{360} * MBP}{2.5\% * \frac{D_R}{360} * MBP} = \frac{D_M}{D_R}$$

$$C = \frac{D_M}{D_R}$$

In the division order, after all the theory and math getting to this point, the formula is simple: give DFAS D_M, and they will look up D_R.

In Troyan's web page section titled, "Data Gleaned from the Barr Decision," Mr. Troyan describes his alternate proposed method with steps and variables A, B, C. Although his written words make it seem complicated (just like word problems in math class), what he describes can be concisely captured with the formula:

$$MRP = MBP * 2.5\% * \frac{D_R}{360}$$

$$MRPMA = \frac{D_M}{D_R} * MRP$$

Where
  MRP is the monthly disposable retirement pay
  MBP is the monthly base pay
  MRPMA is the monthly retirement pay marital asset to be divided
  D_M is the duty points during marriage
  D_R is the duty points at retirement

Using Mr. Troyan's formula, let's see how the Barr plaintiff would make out.

MRP = $4150 * 2.5% * 4779/360 = $1377.28
MRPMA = 4015/4779 * MRP = $1157.10
Spousal payment would be half, or $578.41, the same as before.

The coverture fraction for both methods is identical (0.8401), therefore both methods are the same, and the 42% spousal portion is the same. One can make the process look as complicated as desired, but the coverture fraction in both methods is just D_M divided by D_R.

Remember, for ANY percentage based method, the entire purpose is to determine the coverture fraction. If the coverture fraction is the same then the method is the same. The fraction will be applied to all future retirement payments, which go up each year military pay raises are given.

BOTH methods so far discussed can be simply summarized: Give this formula and the value of D_M to DFAS. Upon retirement, DFAS inserts the values of MRP and D_R. It's really that simple!

$$SpousalPayment = 50\% * MRP * \frac{D_M}{D_R}$$

However…

THE DUAL COVERTURE VALUE DIVISION METHOD

The main argument of the defendant in the Barr case was that this formula is NOT equitable because the defendant was promoted after divorce. At this point, I will introduce the DCV method of doing the division. First, I will duplicate the results above, and then demonstrate what the defendant asked for, and then show how easy it is to also set aside retirement marital assets that pre-existed the marriage. The Barr defendant did not have pre-existing military duty, but I include it here just to show that even more complicated life situations can be easily handled with the DCV methods.

To understand the DCV area diagrams, you may wish to read the background material previously published.[6] DCV area diagrams are presented here assuming you already understand how to make them. Here is what the Barr Court and Mr. Troyan methods look like with a DCV area diagram:
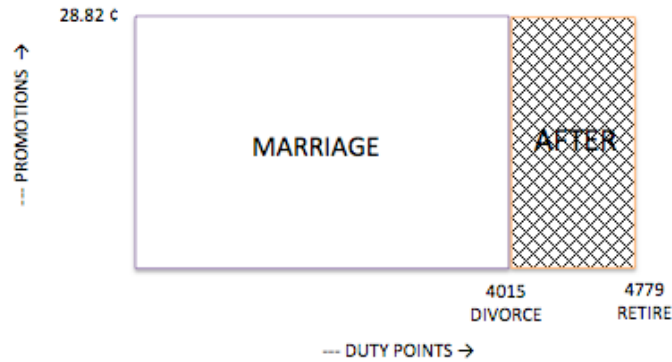

The diagram above incorrectly shows no promotion after the marriage, and is included only to show DCV will match the prior methods. To calculate the coverture fraction, divide the marital area by the total area, remembering area is simply length times width:

$$C = \frac{(4015 * 28.82)}{(4779 * 28.82)} = 0.8401$$

The coverture fraction is identical to the Barr Court and Troyan division methods, therefore the DCV method gives the same spousal award as the two prior methods. Notice after taking half of the marital asset, this perfectly matches the 42% spousal portion the spouse wanted in the Barr case (bottom of appellate decision, page 4).

However, a coverture of 84% (spousal 42%) neglects the fact that the Barr defendant DID get promoted after the marriage, thus earning enhanced retirement value that was not a marital asset and should NOT be divided. Using the proper DCV area looks like this:

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[6] http://www.increa.com/articles/division-military-coverture-value
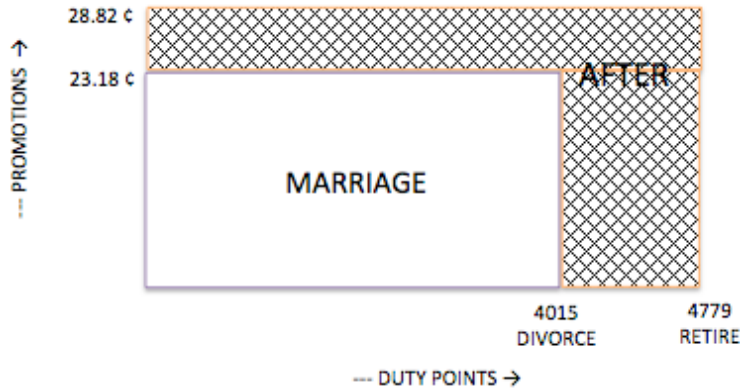
The 23.18 ¢ and 28.82 ¢ amounts in the above diagram are based on Captain and Major pay from the *same* pay chart. The NJ appellate panel also got this wrong. If you don't know how to do this, please see my lengthy documentation of the DCV method.[7] ONLY the white area is marital asset. There is no legitimate reason to divide what is not a marital asset. Calculating the coverture fraction is simply the marital area divided by the total area:

$$C = \frac{4015 * 23.18}{4779 * 28.82} = 0.6758$$

This is the same as what the Barr defendant was asking for when he asked for a ratio of military pay chart income to be included as a second fraction:

$$C = \left(\frac{4015}{4779}\right) * \left(\frac{\$3338}{\$4150}\right) = 0.6758$$

An equitable division order would provide DFAS with a coverture value of 0.6758. This coverture fraction separates the marital asset, and awarding half the marital asset would give a spousal portion of 33.8% instead of 42%.

The difference is large. Awarding 42% instead of 33.8% is an inequitable 24.2% windfall increase to the ex-spouse. If you count that the money is taken *from* the defendant and given

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[7] http://www.increa.com/articles/division-military-coverture-value

to the spouse, it is a 48.4% windfall relative inequity!   Assuming the defendant will collect retirement for 20 years (age 60 when retirement pay started in 2006, age 80 upon death), and assuming the $4150/mo retirement number provided by Mr. Troyan is correct, that gives a total retirement value of $996,000. This does not consider pay chart increases after 2006.

Assuming a 2.5% annual military pay increase, the total retirement would be $1,272,124. The ex-spouse should receive $430K (33.8%). Instead, the ex-spouse will receive $534K (42%). *In essence, even though the Appellate judges agreed with the defendant's intent, $104,000 was stolen from the military member because they couldn't understand the mathematics.* **The simple diagrams and mathematics of the DCV methods are desperately needed!**

The rank correction the military member asked for could be accomplished with the DFAS Hypothetical method, or the Barr Court's "second fraction" Dual Coverture method, or the Troyan method. If you stipulate that COLA will be done with military base pay raises, these all yield the same coverture fraction, which I demonstrated in other papers[8]. It may be that the Hypothetical Method and the Dual Coverture mathematics are too confusing to attorneys and judges, but the DCV diagrams and resultant formulas are simple. In my opinion, it's better to use a Dual Coverture Value diagram and one simple formula to calculate the coverture fraction, and then use it like any other coverture fraction. The DCV method is simple!

Notice the marital portion is fixed in the DCV diagram no matter how far the diagram extends to the right or upward (more duty or more promotion giving a smaller coverture). In other words, *what the military person does vocationally after the divorce doesn't matter and this is proper and equitable.* The area visualization contrasts the confused words of many authors. Even the attorney for the Barr military defendant wrote, "…the longer the

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[8] Attorney Guide for Dividing Military Reserve and Active Duty Retirement According to Federal Guidance**.**
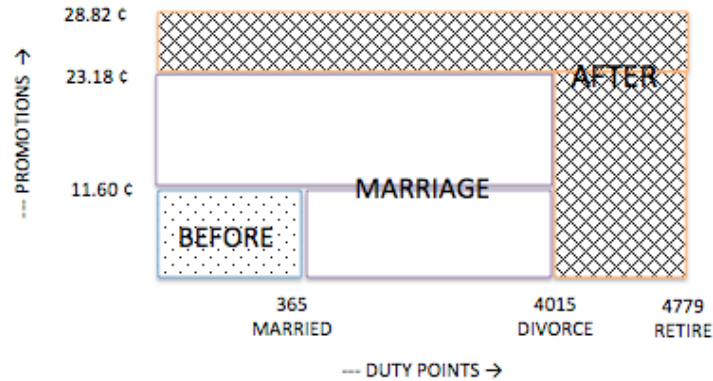
[military member] works after the marriage, the less the former spouse receives...”[9] That statement is hugely misleading and creates court bias against military members who choose to continue duty. In fact, the marital asset does not change. The former spouse does NOT receive a smaller fraction of the marital asset. The former spouse does not receive less dollars. If you don't understand or believe this, please study the DCV diagrams and give me a call. I will run whatever specific numbers apply to your case.

Also, do not overlook that the whole diagram increases in size each year because military base pay, and thus the point values, go up. This is how BOTH parties receive the time-value of money while they wait to get disbursement of retirement pay. I cannot conceive why anybody would claim equity by compensating the parties differently for passively waiting. This is one reason why the DCV methods are better than the DFAS Hypothetical method.

With tremendous simplicity, the DCV method can set aside military duty and promotion enhancements after marriage. In addition, DCV methods are capable of separating apart retirement asset value pre-existing the marriage. Just like a car or apartment brought into a marriage is not considered a marital asset, a retirement asset value brought into the marriage is not a marital asset. Proper separation has not been done before because suitable methods have not been documented before publication of the DCV method. I have written extensively on this topic elsewhere and will demonstrate how the Barr Court could have applied DCV, even if the military member had performed military duty before marriage.

To demonstrate the utility of DCV methods, consider the situation if the military member had already done a year of military duty, attaining the rank of 2nd Lieutenant before marriage. This was not true in the Barr case, and I include it here only to show the simplicity of the DCV method to accommodate such situations. The area diagram would look like this:

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[9] http://www.airforcetimes.com/money/retirement/offduty-retired-be-specific-in-divorce-agreements-to-avoid-future-legal-trouble-032811/

The coverture fraction is again simply the marital portion divided by the total area, giving a coverture fraction of 64.5% and a spousal portion of 32.25%.

$$C = \left(\frac{4015 * 23.18 - 365 * 11.60}{4779 * 28.82} \right) = 0.6450$$

STANDARDS OF PROOF

The New Jersey Court noted that if all military members were treated the same with regard to promotion, then promotion would be nothing special and retirement calculated from promotions should be confounded or comingled with the rest of the career. If this were true, Maj Barr had no right to claim that he had put in special non-marital effort. Therefore, upon remand, they directed Maj Barr to submit evidence showing that promotion enhancements to retirement should not be comingled with all the rest of the military career and divided. Proving that promotion requires special effort can be done by observing the four ways military retirement can be enhanced: promotion events, TSP contributions, COLA raises, longevity raises.

1. Arguing that **promotion enhancements** should be comingled and divided blurs the concepts of <u>time</u> versus <u>event</u>. When an employer does not distinguish between the years, it may be suitable to comingle big increases in later employment years with

smaller increases in early employment years. However, military promotions are not time based, they are event based. The promotion event is not based on chronological accomplishments, and is specifically not awarded by "putting in enough time", but rather from "special and unique" competitive events specifically accomplished by pro-active effort of the military member. The "up or out" mantra of military life specifically accedes to the fact that a person CANNOT simply put in time and continue on the books, let alone be promoted. The quantitative and specific military retirement rules make promotion enhancements separable and divisible in a quantitatively, equitable, and easy way with DCV methods.[10]

2. Military members are now given the opportunity to do a 401(k)-like retirement called **TSP**. After a divorce is finalized, a military member's continued contributions with post-divorce dollars are not divisible as a marriage asset. To do so would be an absurd violation of the concept of divorce, and break civilian legal precedence.

3. Courts are tempted to divide **longevity increases** because they have been told that the military treats all members the same, and gives this to all members, without "special or unique contributions" by an individual member (quotes taken from the Barr v. Barr appellate decision). In fact, given any group of divorcing military couples, longevity raises do NOT apply to all military members the same. I do not intend to be flippant, but they are neglecting the obvious. Longevity increases apply ONLY to military members choosing to continue military service *without* joint effort by the prior spouse! This puts their continued longevity enhancements in a non-marital category. To understand this, consider an analogy. If a military member quit and got a job elsewhere, there would be no marital connection and no retirement asset of the new job would be obligated, even if it were somehow "based on" military experience, such as a pilot getting an airline job based on military flight training and experience.

Retirement pay may be burdened for spousal support, but *not divided as a USFSPA marital asset*. Unlike many civilian retirements, the military retirement rules and

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[10] http://www.increa.com/articles/division-promotion-enhancement

formulas make longevity pay enhancements after divorce eminently separable and divisible in a quantitative way. How can it be equitable to divide to an ex-spouse an asset they have nothing to do with? If their *presence is* a contribution, then how can anybody argue that their *absence is not* a contribution?

4. **Time-value of retirement money** is given to ex-spouses and military members every year in the form of base pay increases on the military pay charts. This fact is established when any percentage-based division order is sent to DFAS. This fact is true no matter *what* formula or method is used to get the percentage. Statements in the Barr Appellate Court opinion[11] are wrong when they argue against this mathematical fact. *No spouse receiving a DFAS percentage award is deprived of time-value of money*.

   Although all percentage methods give time value of money to both spouses, one method compensates parties differently. The DFAS Hypothetical Method[12] gives COLA to the ex-spouse while giving military pay chart raises to the military member. There is no reason to be unequal, which is one reason why the DCV methods are better. The Dual Coverture Value methods of division give to both parties identical compensation in the form of military pay chart increases.

Within the bounds of the marriage, it is reasonable to comingle accomplishments. The NJ Appellate Court wrote, "includability of promotions in the marital estate does not depend on when, during the marriage, the acquisition took pace."[13] This is a sufficient description of comingling. By stating "..during the marriage..", it's obvious the Court did not intend to capture promotions that took place outside the marriage.

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[11] Barr v. Barr Appellate court opinion, page 23, line 5.

[12] Hypothetical Method, DFAS' 2012 Guide, para IV(D).

[13] Barr v. Barr Appellate court opinion, page 4, line 19.

ESTABLISHING PROMOTION OUTSIDE OF MARRIAGE

The New Jersey Appellate additionally put a burden on the military member to prove that a non-comingled promotion enhancement didn't include spousal effort, writing that the military member "…must show promotion was awarded solely through post-divorce work efforts." By jumping to this assertion, the Court sidestepped the deeper question: Must the military person show increased retirement is solely through post-divorce work efforts, or must the non-military ex-spouse show increased retirement is awarded through pre-divorce work efforts?

If a divorce decree is worded to say that "…military retirement earned during the marriage is divisible…" that would seem to put assertive burden on the one claiming the benefit to prove what is divisible. I did not see the original Barr divorce decree, so I do not know why the New Jersey Appellate Court instead put the burden on the military member.

Due to hyper-analytical military retirement rules and record keeping, military records are available to demonstrate if enhancements are actively earned solely after the marriage. Using these military records, DCV can easily diagram the proper marital portion and mathematically factored out of division the proper amount. Here are the paradigms in which the details can be applied:

1. The presumptive demonstration of promotion enhancement being a marriage asset or not is the date of promotion. If the promotion date is during the marriage, the promotion enhancement is presumed to be a marriage asset. If the promotion date is outside the marriage, it is presumed to not be a marriage asset. This is similar to how a valuation date is used for other marital financial assets, except the Federal government mandates the date instead of the Court.

2. There is strong cause to count the promotion as non-marriage even if the promotion date is prior to the marriage ending. Attorneys often carelessly assume promotion equals retirement increase. This is not true. Promotion is *required* for retirement

promotion enhancement, but is not *sufficient* to cause it. Retirement does not go up calculated from not-yet-recognized activity. It also does not go up if selected for promotion. It is also does not go up upon actually pinning on the new rank. Making promotion manifest into an increased retirement requires a continuum of 3 years of duty *after* pinning on the increased rank. Until 3 years of performed duty in the higher promoted grade is complete, the promotion has no impact on retirement. If the spouse is gone during this time, their contribution is zero.

3. The New Jersey Court asked for evidence that the ex-spouse did *not* contribute to promotion. This is an awkward logical request to prove that something didn't happen. Fortunately, due to military processes, there is often evidence for an even stronger logical assertion: that contribution of an ex-spouse was tested, and was found *not sufficient* for promotion.

    Specifically, a military member is often not promoted on the first or second attempt. If promotion was considered and not awarded in prior years, it is clear demonstration that whatever it took to be promoted was not acquired during prior years. This is prima facie evidence that what the ex-spouse contributed did not earn a promotion, and ONLY by the additional work of the military member was promotion possible. Consider a case where a military member applied for and was denied in 2005. Then, in 2006, the spouse leaves and files for divorce, and at the end of the year, the military member was again not promoted. Neither were they promoted in 2007. Then a divorce is finalized in 2008, after which the military member is promoted. Finally, in 2011, after 3 more years of solo military work, the promotion actually vests an increased retirement. Further promotions may happen in 2012 or later. It would be unreasonable to award the ex-spouse division of the promotion enhancement.

The simplicity of DCV area diagrams is desperately needed. When the NJ Appellate panel was presented with a Dual Coverture fraction proposal by the military member, they saw value and simplicity and equity. However, they were unwilling to apply the method because they

misunderstood the facts of how it works—resulting in $104,000 being inequitably taken from the military member and given to the ex-spouse. They wrote:

> "Essentially, defendant proposes to add an additional fraction to the formula, reflecting his pay as a Captain after eleven years of service, divided by his pay as a Major at the time of retirement. Defendant maintains this additional component, when used with the fraction of points earned during the marriage divided by total points earned during his military service, would satisfactorily exclude his post- divorce work efforts. We reject this proposition as presented *because it limits plaintiff's interest as if the pension were awarded at the time of divorce, rather than deferred for almost twenty years.* [emphasis added]"[14]

The italicized portion of the Appellate opinion is false. As already proved, while the numerical fraction does not increase, the dollar amount does increase and does award time-value of money increases. The Dual Coverture method provides an equitable fraction, and that fraction would be applied to the monthly retirement pay, which rose every year from 1987 (time of divorce) on. Due to egregious and damaging mathematical mistake, the New Jersey Appellate panel should vacate their decision and properly implement the Dual Coverture fraction they agreed with. That is equitable and just for the military members and spouses that serve this nation.

SUMMARY

1. Mr. Troyan does not recognize that the methods he contrasted are the same, and both are not equitable when there are (or may be) promotions after divorce.
2. DCV is easy, removing Mr. Troyan's fear of increasing complexity.
3. DCV equitably handles any sequence of military duty, marriage, and divorce.
4. Because of DCV ease and equity and sufficiency, DCV should replace other methods.

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[14] Barr v. Barr Appellate Court opinion, page 23.