

AIR WAR COLLEGE

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The COLA Trap:

Picking the Wrong Retirement Date Could Cost You Thousands

by

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Biography

Colonel Douglas J. Fowler is an Air War College student at Maxwell Air Force Base in Montgomery, Alabama. A career Cyberspace Operator, Colonel Fowler began concurrently serving as a Foreign Area Officer after completing the Olmsted Scholar program in Montevideo, Uruguay. He has experience in network operations, electronics maintenance, and cyber training but is best known for programming the vMPF ribbons display used daily by over 500,000 total force personnel.

Prior to his current assignment he served as Deputy Chief of United States European Command's North & East Europe Division where he provided advice to the EUCOM commander on political-military affairs in central & eastern Europe, the Nordic region, and Eurasia. Colonel Fowler previously served as Deputy Commander of Keesler Air Force Base's 81st Training Group and commanded Keesler's 338th Training Squadron to provide Cyber Transport and Radio Frequency Transmissions initial skills training for units worldwide.

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Abstract

The 2014 National Defense Authorization Act legalized the Defense Finance and Accounting Service's failure to apply certain mechanisms to prevent pay inversions in the pensions of uniformed services retirees. These pay inversions, which can cost individual retirees tens of thousands of dollars over the course of their retirement, stem from the formula for determining a retiree's first Cost of Living Adjustment for inflation. In particular, the formula's use of retirement quarter as a variable creates a system which financially punishes members who retire in the first month of a fiscal quarter. Current active duty members can avoid the pay inversion 1) by retiring at the end of a fiscal quarter, 2) by avoiding a September retirement, and 3) by retiring specifically in March.

Introduction

Lt Cols Johnny Late and Jane Early joined the United States Air Force on the same day, promoted to the same ranks on the same days, and completed 20 years of active duty service on the same day. Lt Col Late retired one month later than Lt Col Early, but unexpectedly began to receive a pension \$1,000 a year less than Lt Col Early upon receipt of their first Cost of Living Adjustment (COLA) the January after they retired. Despite all being equal except for serving one month longer than Lt Col Early, Lt Col Late will continue to receive a smaller pension for the rest of his life. From 2000 through 2023, the aggregate of service member pension payments will be \$272 million less than expected.¹ The 2014 National Defense Authorization Act codifies this paradox in the uniformed services pension system, but service members can prevent the resulting lifelong pay inversion by retiring in one of a few select months.

The High-3 Pension System

This paper deals exclusively with the legacy High-3 pension system (also known as the High-36 system) because there will continue to be new retirees under this system at least until January 2048, because so few members have opted for the Career Status Bonus/REDUX system, and because the first Blended Retirement System members will not retire until January 1, 2026. For uniformed service members (including the Public Health Service Commissioned Corps and National Oceanic and Atmospheric Administration Commissioned Officer Corps) who entered active duty on or after September 8, 1980, the pension is calculated using the average of their highest 36 months of base pay.² For most members this is the final 36 months of pay. These highest 36 months of base pay will likely include a spread of values because a member's base pay can change multiple times a year due to promotion, receipt of a longevity pay raise, or receipt of an across-the-board military pay raise.

Upon reaching 20 years of service, a member's monthly pension will be 2.5% of the average of their highest 36 months of base pay for each year they have served.³ Serving exactly 20 years results in 50% of the average of their highest 36 months of base pay (20 years x 2.5% = 50%). Each additional year served adds 2.5% to the formula, so serving 25 years results in 62.5% of the average of their highest 36 months of base pay (25 years x 2.5% = 62.5%).⁴ Members do not have to complete whole years of service and will receive a prorated portion of 2.5% for each full month of service completed past 20 years, or about an extra 0.21% for each additional month served on active duty.⁵

Unless medically retired, members must retire on the first day of the month.⁶ This means there are only 12 possible retirement dates in any given year, which helps to simplify retirement math.

Most importantly for this study, military pensions are not static. Just as active duty members may receive an across-the-board percent increase in pay via each year's National Defense Authorization Act, retirees may also receive an across-the-board percent increase in pay on December 1 of each year (payable in arrears on December 31) called the Cost of Living Adjustment (COLA). Unlike the active duty pay raise, the retiree COLA is determined by an automated formula tied to inflation and is not determined by the National Defense Authorization Act.

History of Pay Inversions

Because the active duty annual pay raise is governed by the National Defense Authorization Act and the retiree annual pay raise is an automated formula tied to inflation, we can imagine scenarios where the retiree pay raise outpaces the active duty pay raise. In fact, in years with a very low or no active duty pay raise and very high inflation, it is possible for some

retirement-eligible active duty members to look back and see that they would have received a higher pension if they had retired a few months earlier rather than retire today. This concept that a retirement-eligible member could have earned a larger pension by retiring earlier is called a pay inversion.

Final Pay, the military retirement system prior to High-3, was especially prone to pay inversions because it based all calculations on a member's final month of pay instead of a spread of 4 or 5 different monthly pays averaged over 36 months. To fight this during the period of the Final Pay system, Congress implemented several measures. For example, in 1967 Congress added subsection (e) to 10 U.S.C. § 1401a.⁷ This subsection, which has since been replaced, basically stated that retirees should receive the higher of either their current retirement pay or any retirement pay they would have earned if they had retired earlier that year or the previous year.⁸ This essentially amounted to a 1-year look back.

Upon retiring in 1973, former Deputy Commander of United States European Command, USAF General David A. Burchinal, discovered that his pension would have been higher if he had retired in 1971.⁹ He petitioned the Comptroller General of the U.S. Government Accountability Office to apply 10 U.S.C. § 1401a subsection (e) to his retired pay using a 2-year look back instead of the 1-year look back it prescribed.¹⁰ Although he was denied, the 1976 Department of Defense Appropriation Authorization Act amended 10 U.S.C. § 1401a to do exactly what he wanted.¹¹ This act replaced subsection (e) with subsection (f), now known as the Tower Amendment, which eliminated the 1-year look back and granted retirees the higher of either their retirement pay on the day they retired or the retirement pay from any previous day on which they were retirement-eligible.¹²

Cost of Living Adjustment Formula

For a better understanding of what causes pay inversions, we need to look closely at 10 U.S.C §1401a which details the formula for annual retiree pay COLAs:

(1) INCREASE REQUIRED.—

Effective on December 1 of each year, the Secretary of Defense shall increase the retired pay of members and former members entitled to that pay in accordance with paragraphs (2) and (3).

(2) PERCENTAGE INCREASE.—Except as otherwise provided in this subsection, the Secretary shall increase the retired pay of each member and former member by the percent (adjusted to the nearest one-tenth of 1 percent) by which—

(A) the price index for the base quarter of that year, exceeds

(B) the base index.¹³

For clarity, we need to look again to 10 U.S.C §1401a to define price index, base quarter, and base index:

(1) The term “price index” means the Consumer Price Index (all items, United States city average) published by the Bureau of Labor Statistics.

(2) The term “base quarter” means the calendar quarter ending on September 30 of each year.

(3) The term “base index” means the price index for the base quarter for the most recent adjustment under subsection (b).¹⁴

Despite the definitions, these terms need clarification. The Consumer Price Index is basically a monthly measure of inflation. A price index for an entire quarter is the average of the Consumer Price Index measurements for all 3 months in the quarter. Base quarter is the 3-month period from July 1 through September 30, normally for the current year. Each year has a base quarter. Base index is the average of the monthly measures of inflation for July, August, and September from either the most current July, August, and September or from the last year there was an adjustment in retired pay.

A simplified explanation of the formula would be that on December 1, 2018 retirees will receive a COLA based on the rise in inflation between A) July - September 2017 and B) July - September 2018. If there had been no retiree COLA on December 1, 2017, then the COLA on

December 1, 2018 would be based on the difference in inflation between A) July - September of the most-recent year with a pay raise and B) July - September 2018.

Note that the formula never takes into account the spikes or dips in inflation that occur in months outside of July, August, and September. Imagine some sort of financial crisis that leads to a massive spike in inflation in April 2018, but is then resolved in May 2018, leading to a return to the inflation of March 2018. Retirees lived through a month of higher costs in April 2018 and paid more as a result. However, the annual COLA formula which compares the inflation of July - September 2017 to the inflation of July - September 2018 does not take into account the massive inflation of April 2018. While unfair, at least the formula treats all retirees equally unfairly as long as they have been retired for more than a year. As we will see, this is not the case for retirees who have been retired for less than a year.

High-3 System Pay Inversion

There is a known pay inversion in the High-3 system's COLA for retirees who have been retired for less than a year.¹⁵ The High-3 system went into effect on September 8, 1980 and the first non-medically retired members under the High-3 system began earning their pension on October 1, 2000.¹⁶ On November 12, 2012, Acuity Consulting, Inc. released their independent audit of the Defense Finance and Accounting Service's (DFAS) methodology for calculating retired pay which highlighted the following significant deficiency:

DFAS controls do not verify that retiree payments are correctly computed. Specifically, some retiree accounts were incorrectly calculated by not applying the Tower Amendment considerations to their High-3 benefit payments.¹⁷

Soon thereafter, Congress passed the National Defense Authorization Act for Fiscal Year 2014 which included Section 631.¹⁸ That section clarified that the Tower Amendment (the multi-year look back for pay inversions) can be applied to High-3 retirees only on the day they retired, not

on the day of their first COLA. Retirees get one bite at the "look back apple" and that is on the day they retire. On June 11, 2013, prior to the passage of the FY14 NDAA, the Congressional Budget Office's (CBO) Cost Estimate noted that a

recent audit concluded that the Tower Amendment does apply to those who retire using the High-36 Average method of computation and that a number of those retirees stand to benefit from its application. DoD believes they are now required to make retroactive retirement payments back to the year 2000 (the year in which retirees started receiving annuities under the High-36 plan), and that they will also have to recalculate payments to future retirees to determine if those payments should be increased. Section 622 would prevent most of those higher payments from taking place, by specifying that the Tower Amendment applies to High-36 retirees only in very limited circumstances.¹⁹

CBO went on to detail that about 15% of all High-3 retirees were affected by the DFAS failure to apply the Tower Amendment and the retirees should "receive retroactive payment...almost \$60 million in total."²⁰ The CBO also explained that the FY14 NDAA would result in a further reduction in "future payments by more than \$10 million annually over the next 10 years" and a total reduction in "spending from the Military Retirement Fund by \$212 million over the 2014-2023 period."²¹

In other words, High-3 system military retirees will be shortchanged \$272 million between 2000 and 2023 via pay inversions. Current retirees have no redress, but current active duty members can make choices to prevent the pay inversion and keep their share of that \$272 million in government cost avoidance.

First Cost of Living Adjustment Formula for New High-3 Retirees

The formula for determining the first COLA for High-3 retirees is different than the COLA formula for retirees who have been retired for more than a year.²² This makes sense because it prevents a member from retiring on November 1, 2018 and then receiving a full year's COLA just 30 days later on December 1, 2018. What about the October 1, 2018 retiree? It

seems logical that this retiree would receive a partial COLA. After all, she felt the effects of inflation from the 1/6 of a year between October 1, 2018 and December 1, 2018. In fact, October 1 retirees of any year are guaranteed to receive no COLA for 14 months. We need to return to 10 U.S.C §1401a to understand the formula which determines the first COLA for new retirees:

(d) FIRST COLA ADJUSTMENT FOR MEMBERS WITH COMPUTED USING HIGH-THREE.—Notwithstanding subsection (b) but subject to subsection (f)(3), the retired pay of a member or former member of an armed force who first became a member of a uniformed service before August 1, 1986, or on or after August 1, 1986, if the member or former member did not elect to receive a bonus under section 322 (as in effect before January 28, 2008) or section 354 of title 37 and whose retired pay base is determined under section 1407 of this title shall be increased on the effective date of the first adjustment of retired pay under subsection (b) after the member or former member becomes entitled to retired pay by the percent (adjusted to the nearest one-tenth of 1 percent) equal to the difference between the percent by which—

- (1) the price index for the base quarter of that year, exceeds
- (2) the price index for the calendar quarter immediately before the calendar quarter during which the member became entitled to retired pay.²³

The concept of basing the first COLA on a member's retirement quarter leads to unexpected outcomes. Just like the formula for retirees who have been retired for more than a year, the formula for retirees who have been retired for less than a year looks at the average monthly inflation from the most-recent July through September. It then compares that 3-month measure of inflation to the 3-month inflation of the fiscal quarter immediately before the quarter in which the member retired. Using the example of a September 1, 2018 retiree we see that the formula for this member's first COLA on December 1, 2018 will be the difference between the 3-month inflation of A) July - September 2018 (the price index for the base quarter) and B) April - June 2018 (the 3-month inflation of the quarter immediately before the member's retirement quarter).

If we shift that member's retirement one month earlier to August 1, 2018, there will be no change to the variables in the formula. It will remain the difference in inflation between A) July

- September 2018 and B) April - June 2018. In fact, if we move the member's retirement an additional month earlier to July 1, 2018, we see no changes to the variables. It will remain the difference in inflation between A) July - September 2018 and B) April - June 2018. However, if we were to make the member retire just 30 days later on October 1, 2018, we would see a significant shift in the variables because October is in the 4th quarter of the year while September is in the 3rd quarter. Taking this into account we see that the member's COLA for retiring on October 1, 2018 is the difference in inflation between A) July - September 2018 and B) July - September 2018. Anything minus itself is zero, so the member retiring on October 1, 2018 will receive no COLA on December 1, 2018. The result will be the same for all members who retire in October, November, or December of any year.

Root Causes of High-3 System Pay Inversion

The quarterly COLA formula forms the basis of the High-3 pay inversion. Depending on the month of retirement, a member's first COLA will take into account the inflation from either A) between five months to three months previous, or B) between four months to two months previous, or C) between three months to one month previous. For example, the first COLA for members who retire on June 1 is affected by inflation from the previous January, but not from June. The first COLA for members who retire on July 1 is affected by inflation from June, but not from July, August, or September. These arbitrary quarterly break points contribute to pay inversions for High-3 retirees.

TABLE 1. Base Quarter vs Retirement Quarters--2018 Retirees

Retirement Month and Date	Base Quarter	Quarter Before Retirement
January 1, 2018	July - September 2018	October - December 2017
February 1, 2018	July - September 2018	October - December 2017
March 1, 2018	July - September 2018	October - December 2017
April 1, 2018	July - September 2018	January - March 2018
May 1, 2018	July - September 2018	January - March 2018
June 1, 2018	July - September 2018	January - March 2018

July 1, 2018	July - September 2018	April - June 2018
August 1, 2018	July - September 2018	April - June 2018
September 1, 2018	July - September 2018	April - June 2018
October 1, 2018	July - September 2018	July - September 2018
November 1, 2018	July - September 2018	July - September 2018
December 1, 2018	July - September 2018	July - September 2018

The other cause of pay inversions under the High-3 system is that the formula does not take into account any inflation spikes or dips that occur between the member's retirement quarter and the base quarter. Think back to the earlier example about a spike in inflation in April 2018 followed by a return to the inflation of March 2018. The first year COLA formula for a member who retires on April 1, 2018 does not take into account the measure of inflation for April 2018 even though he lived through it during his retirement days. Likewise, the first year COLA formula for a member who retires in January, February, or March 2018 does not take into account the spike in inflation in April 2018 even though she lived through it during her retirement days. However, the first year COLA for a member who retires on July 1, 2018 will take into account the spike in inflation from April 2018 even though he was still on active duty in April, May, and June 2018.

Significance of the Pay Inversion

Even if there exists a pay inversion due to the formula for calculating a retiree's first COLA, is it significant enough to matter? After all, the CBO noted that for members affected by the pay inversion who retired between 2000 and 2013, the average back pay would be only about \$1,000 per person.²⁴ However, averages do a horrible job of demonstrating the issue. A 2000 retiree shorted a total of \$1,000 (about \$6.94 a month) and a 2012 retiree shorted a total of \$1,000 (about \$83.33 a month) would see the pay inversion in a different light.

We need to look at the quarterly COLAs for every first year retiree since October 1, 2000 to get an idea of the significance of the pay inversion.

TABLE 2. Quarterly COLAs of the High-3 Pension System

Annual COLA, December of:		First COLA Based on Retirement Quarter				Active Duty Pay Raise, January of:	
		Jan - Mar	Apr - Jun	Jul - Sep	Oct - Dec		
2000	3.50%	2.80%	1.80%	0.07%	0%	2001	3.70%
2001	2.60%	2.00%	1.10%	0.00%	0%	2002	6.90%
2002	1.40%	1.40%	1.40%	0.50%	0%	2003	4.70%
2003	2.10%	1.70%	0.70%	0.40%	0%	2004	4.20%
2004	2.70%	2.70%	1.80%	0.30%	0%	2005	3.50%
2005	4.10%	3.40%	2.80%	1.40%	0%	2006	3.10%
2006	3.30%	2.80%	2.40%	0.60%	0%	2007	2.70%
2007	2.30%	2.30%	2.30%	0.20%	0%	2008	3.50%
2008	5.80%	5.00%	3.80%	1.20%	0%	2009	3.90%
2009	0.00%	0.00%	0.00%	0.00%	0%	2010	3.40%
2010	0.00%	0.00%	0.00%	0.00%	0%	2011	1.40%
2011	3.60%	3.60%	2.40%	0.40%	0%	2012	1.60%
2012	1.70%	1.70%	1.00%	0.20%	0%	2013	1.70%
2013	1.50%	1.50%	0.90%	0.40%	0%	2014	1.00%
2014	1.70%	1.70%	0.90%	0.40%	0%	2015	1.00%
2015	0.00%	0.00%	0.00%	0.00%	0%	2016	1.30%
2016	0.30%	0.00%	0.00%	0.00%	0%	2017	2.10%
2017	2.00%	1.80%	1.00%	0.40%	0%	2018	2.40%
2018	2.80%	2.40%	1.50%	0.30%	0%	2019	2.60%

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Focus on the change in the measure of inflation between quarters within a single year. For example, the first COLA on December 1, 2011 for a member who retired on June 1, 2011 was 2.4% while a member who retired 30 days later on July 1, 2011 received a 0.4% COLA on December 1, 2011. Yes, working an extra 30 days cost those July 2011 retirees 2% in COLA.

We must keep in mind a few other variables to keep this an even comparison. By working an extra month the July 2011 retiree increased his pension by 1/12 of 2.5%, or about 0.21%. He also made a change in his highest 36 months of pay by likely adding his June 2011 pay to the formula and subtracting his June 2008 pay from the formula. The effect on the 36-month average of adding a high earning month and subtracting a low earning month varies by

pay grade and years of service. We can create some examples by referencing active duty pay charts from previous years.

For example, imagine two colonels (O-6s) who earned their commissions on June 1, 1986 and went on active duty the very same day. They both promoted to colonel 21 years later on June 1, 2007. They both retired in 2011 after 25 years of service, one in June 2011 and the other in July 2011. Here is what their highest 36 months of pay looked like:

TABLE 3. Average of Highest 36 Months of Pay--June 2011 vs July 2011 O-6 retirees

	Pay Years	Monthly Pay, June 2011 retiree	Monthly Pay, July 2011 retiree	
Jun-08	22	\$8,689		
Jul-08	22	\$8,689	\$8,689	
Aug-08	22	\$8,689	\$8,689	
Sep-08	22	\$8,689	\$8,689	
Oct-08	22	\$8,689	\$8,689	
Nov-08	22	\$8,689	\$8,689	
Dec-08	22	\$8,689	\$8,689	
Jan-09	22	\$9,028	\$9,028	Annual pay raise
Feb-09	22	\$9,028	\$9,028	
Mar-09	22	\$9,028	\$9,028	
Apr-09	22	\$9,028	\$9,028	
May-09	22	\$9,028	\$9,028	
Jun-09	22	\$9,028	\$9,028	
Jul-09	22	\$9,028	\$9,028	
Aug-09	22	\$9,028	\$9,028	
Sep-09	22	\$9,028	\$9,028	
Oct-09	22	\$9,028	\$9,028	
Nov-09	22	\$9,028	\$9,028	
Dec-09	22	\$9,028	\$9,028	
Jan-10	22	\$9,335	\$9,335	Annual pay raise
Feb-10	22	\$9,335	\$9,335	
Mar-10	22	\$9,335	\$9,335	
Apr-10	22	\$9,335	\$9,335	
May-10	22	\$9,335	\$9,335	
Jun-10	24	\$9,577	\$9,577	24 years of service
Jul-10	24	\$9,577	\$9,577	
Aug-10	24	\$9,577	\$9,577	

Sep-10	24	\$9,577	\$9,577	
Oct-10	24	\$9,577	\$9,577	
Nov-10	24	\$9,577	\$9,577	
Dec-10	24	\$9,577	\$9,577	
Jan-11	24	\$9,711	\$9,711	Annual pay raise
Feb-11	24	\$9,711	\$9,711	
Mar-11	24	\$9,711	\$9,711	
Apr-11	24	\$9,711	\$9,711	
May-11	24	\$9,711	\$9,711	
Jun-11	24		\$9,711	
Average of high 36 months =		\$9,206.33	\$9,234.72	

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The colonel who retired in June 2011 served exactly 25 years, so he received 62.5% of the average of his highest 36 months of pay ($\$9,206.33 \times 62.5\% = \$5,753.96$) for his monthly pension, or \$5,753.96. The colonel who retired in July 2011 served one month longer than 25 years, so he received 62.71% of the average of his highest 36 months of pay ($\$9,234.72 \times 62.71\% = \$5,791.09$) for his monthly pension, or \$5,791.09. So far everything seems right. The colonel who worked one month longer and retired on July 1, 2011 received \$37.14 a month (\$445.63 a year) more than the June 2011 retiree.

Now apply the COLA they received on December 1, 2011. The June 2011 retiree received a 2.4% COLA and will receive a monthly pension of \$5,892.05 (\$70,704.64 for the year) starting on December 1, 2011. The July 2011 retiree received a 0.4% COLA and will receive a monthly pension of \$5,814.26 (\$69,769.25 for the year) starting December 1, 2011. The June 2011 retiree will receive \$935.39 ($\$70,704.64 - \$69,769.25 = \935.39) more in 2012 pension payments than the July 2011 retiree.

That difference will get larger as the years pass. On December 1, 2012 both colonels started to receive the same across-the-board COLAs. If we apply the cumulative effect of those COLAs from TABLE 2, we can calculate the total 2019 pensions for the colonels. We see that

the June 2011 retiree will receive \$78,063.87 in 2019 and the July 2011 retiree will receive \$77,031.12 in 2019. The June 2011 retiree now makes \$1,032.75 a year more than the June 2011 retiree.

Now imagine 12 colonels (O-6s) who earned their commissions on June 1, 1986 and went on active duty the very same day. They all promoted to colonel 21 years later on June 1, 2007. They all retired in 2011, one each in January, February, March, April, May, June, July, August, September, October, November, and December. Here is what their highest 36 months of pay looked like:

TABLE 4. Average of Highest 36 Months of Pay--All 2011 O-6 Retirees

Pay Years	2011 Retirement Month												
	January	February	March	April	May	June	July	August	September	October	November	December	
Jan-08	20	\$8,466											
Feb-08	20	\$8,466	\$8,466										
Mar-08	20	\$8,466	\$8,466	\$8,466									
Apr-08	20	\$8,466	\$8,466	\$8,466	\$8,466								
May-08	20	\$8,466	\$8,466	\$8,466	\$8,466	\$8,466							
Jun-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689						
Jul-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689					
Aug-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689				
Sep-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689			
Oct-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689		
Nov-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	
Dec-08	22	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689	\$8,689
Jan-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Feb-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Mar-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Apr-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
May-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Jun-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Jul-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Aug-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Sep-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Oct-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028

Nov-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Dec-09	22	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028	\$9,028
Jan-10	22	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335
Feb-10	22	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335
Mar-10	22	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335
Apr-10	22	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335
May-10	22	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335	\$9,335
Jun-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Jul-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Aug-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Sep-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Oct-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Nov-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Dec-10	24	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577	\$9,577
Jan-11	24		\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Feb-11	24			\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Mar-11	24				\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Apr-11	24					\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
May-11	24						\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Jun-11	24							\$9,711	\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Jul-11	24								\$9,711	\$9,711	\$9,711	\$9,711	\$9,711
Aug-11	24									\$9,711	\$9,711	\$9,711	\$9,711
Sep-11	24										\$9,711	\$9,711	\$9,711
Oct-11	24											\$9,711	\$9,711
Nov-11	24												\$9,711
Dec-11	24												
Average of highest 36 months of pay =		\$9,033	\$9,068	\$9,103	\$9,137	\$9,172	\$9,206	\$9,235	\$9,263	\$9,292	\$9,320	\$9,348	\$9,377
Year Multiplier		61.46%	61.67%	61.88%	62.08%	62.29%	62.5%	62.71%	62.92%	63.13%	63.33%	63.54%	63.75%
Monthly Pension at Retirement		\$5,552	\$5,592	\$5,632	\$5,673	\$5,713	\$5,754	\$5,791	\$5,828	\$5,865	\$5,903	\$5,940	\$5,978
First COLA		3.60%	3.60%	3.60%	2.40%	2.40%	2.40%	0.40%	0.40%	0.40%	0%	0%	0%
Monthly Pension After COLA		\$5,752	\$5,793	\$5,835	\$5,809	\$5,850	\$5,892	\$5,814	\$5,851	\$5,889	\$5,903	\$5,940	\$5,978
Annual Pension After COLA		\$69,020	\$69,519	\$70,020	\$69,706	\$70,204	\$70,705	\$69,769	\$70,216	\$70,665	\$70,831	\$71,281	\$71,732

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There are a couple of anomalies here. The June retiree receives a larger pension than the July, August, and September retirees. The May retiree receives a larger pension than the July retiree.

The March retiree receives a larger pension than the April retiree. The \$935 per year difference between the June and July retirees represents the largest pay inversion for the year by far, but the \$435 difference between the May and July retirees is not insignificant.

Note that the 2% difference in COLA between June 2011 and July 2011 is not even the most extreme case in the historical charts. The difference between June 2008 and July 2008 is 2.6%.²⁸ The difference between June 2007 and July 2007 is 2.1%.²⁹ We could also exacerbate the scenario by giving the colonels more years of service upon retirement.

For example, looking at the chart in Appendix A to follow the same methodology, imagine 12 colonels (O-6s) who earned their commissions on January 1, 1981 and went on active duty the very same day. They all promoted to colonel 21 years later on January 1, 2002. They all retired in 2008, one each in January, February, March, April, May, June, July, August, September, October, November, and December. In this case the pay inversion is even more pronounced because of the increased spread in the quarterly COLA and because the colonels had bigger pensions on the day of retirement.

TABLE 5. Average of Highest 36 Months of Pay--All 2008 O-6 Retirees (Simplified)

	2008 Retirement Month											
	January	February	March	April	May	June	July	August	September	October	November	December
Average of highest 36 months of pay =	\$8,546	\$8,578	\$8,611	\$8,644	\$8,676	\$8,709	\$8,742	\$8,775	\$8,807	\$8,840	\$8,873	\$8,905
Year Multiplier	67.50%	67.71%	67.92%	68.13%	68.33%	68.54%	68.75%	68.96%	69.17%	69.38%	69.58%	69.79%
Monthly Pension at Retirement	\$5,768	\$5,808	\$5,848	\$5,889	\$5,929	\$5,969	\$6,010	\$6,051	\$6,092	\$6,133	\$6,174	\$6,215
First COLA	5.00%	5.00%	5.00%	3.80%	3.80%	3.80%	1.20%	1.20%	1.20%	0%	0%	0%
Monthly Pension After COLA	\$6,057	\$6,099	\$6,141	\$6,112	\$6,154	\$6,196	\$6,082	\$6,123	\$6,165	\$6,133	\$6,174	\$6,215
Annual Pension After COLA	\$72,681	\$73,184	\$73,689	\$73,348	\$73,850	\$74,355	\$72,986	\$73,481	\$73,977	\$73,592	\$74,086	\$74,582

In this case we see the June retiree earns a pension larger than all others except for the December retiree. The June retiree's pension is \$1,369 larger than the July retiree's. Factor in all the annual COLAs through December 1, 2018, and the June 2008 retiree will earn \$1,566 more than the July retiree in 2019. Between December 1, 2008 and December 1, 2019, the June 2008 retiree will have earned \$15,994 more than the July 2008 retiree. Read that again. One retiree will receive \$16,000 less than another retiree over an 11-year period because he served his country 30 days longer.

The pay inversion affects enlisted members as well as officers. Here is an example from Appendix B for an E-8 who retired in 2008 with 27 years of service:

TABLE 6. Average of Highest 36 Months of Pay--All 2008 E-8 Retirees (Simplified)

Average of highest 36 months of pay =	\$4,343	\$4,361	\$4,379	\$4,397	\$4,415	\$4,433	\$4,451	\$4,469	\$4,487	\$4,505	\$4,523	\$4,541
Year Multiplier	67.50%	67.71%	67.92%	68.13%	68.33%	68.54%	68.75%	68.96%	69.17%	69.38%	69.58%	69.79%
Monthly Pension at Retirement	\$2,932	\$2,953	\$2,974	\$2,996	\$3,017	\$3,038	\$3,060	\$3,082	\$3,103	\$3,125	\$3,147	\$3,169
First COLA	5.00%	5.00%	5.00%	3.80%	3.80%	3.80%	1.20%	1.20%	1.20%	0%	0%	0%
Monthly Pension After COLA	\$3,078	\$3,101	\$3,123	\$3,109	\$3,132	\$3,154	\$3,097	\$3,119	\$3,141	\$3,125	\$3,147	\$3,169
Annual Pension After COLA	\$36,940	\$37,207	\$37,475	\$37,313	\$37,580	\$37,847	\$37,161	\$37,424	\$37,688	\$37,503	\$37,765	\$38,029

The \$686 annual pay inversion between the June 2008 and July 2008 retirees is not drastic, but adds up over time. The June 2008 retiree will make \$8,014 more than the July 2008 retiree between January 2009 and December 2019.

This pay inversion represents a few serious problems. First, it is simply not fair and makes the government look either nefarious or incompetent. Second, it will drive members to

retire in a month which avoids the pay inversion rather than in a month that is a good fit for both the member and the service. A member who otherwise might be willing to retire a month later in order to help the team would be hesitant to do so if it cost her \$16,000 over a decade.

Despite the significance of this problem, virtually no reporting or scholarship exists concerning this pay inversion. In June 2013 syndicated columnist Tom Philpott reported on DFAS's failure to apply the Tower Amendment to High-3 pensions.³¹ However, he referenced the CBO cost estimate by writing "future retired pay for impacted High-3 retirees would forever be smaller than current law requires, by an average of \$200 a year, saving the Military Retirement Fund more than \$10 million annually."³² As shown previously, the CBO averages severely downplay the scope of the problem and do not take extreme cases into account, so Mr Philpott's reporting likely caused little angst among military members. No other scholarship or reporting was discovered covering the pay inversion.

Argument Against Significance of the Pay Inversion

Some might argue that the pay inversion is not significant because the later retirees received additional months of active duty pay. In the TABLE 3 example of two colonels who retired in 2011, the colonel who retired in July and suffered a pay inversion as a result also received \$9,711 in active duty pay that the June retiree did not receive. This argument is diminished somewhat when we factor in that the June retiree received a \$5,754 pension payment while the July retiree was still on active duty.

In addition, if we accept as valid the argument that additional months of active duty pay outweigh pay inversions, then why has Congress consistently fought pay inversions at all? Why is a pay inversion considered bad if it happens between calendar years (which the Tower Amendment remedies), but considered acceptable if it happens within a calendar year? We can

examine a pay inversion deemed unacceptable by the Tower Amendment by taking two colonels who joined the Air Force on December 1, 1979 under the *Final Pay* retirement system. They both reached 28 years of service on December 1, 2007. In 2008 their active duty pay was \$9,352 per month.³³ One retired on December 1, 2008 with 29 years of service (72.5% years of service multiplier). He received a COLA that very same day of 5.0% giving him a monthly pension of \$7,119 ($\$9,352 \times 72.5\% \times 105\% = \$7,119$).³⁴ The other colonel retired on January 1, 2009 with 29 years and 1 month of service (72.71% years of service multiplier). He received a full active duty pay raise that very same day of 3.9% giving him a pension of \$7,065 ($\$9,352 \times 72.71\% \times 103.9\% = \$7,065$).³⁵ As a result of the disparity between the 2008 COLA and the 2009 active duty pay raise, the January 2009 retiree received \$54 per month less than the December 2008 retiree. The Tower Amendment prevents this pay inversion and gives the January 2009 retiree an additional \$54 per month even though he received \$9,352 in December 2008 active duty pay.

There is also risk and opportunity cost to remaining on active duty an additional month. A stop-loss could occur. Deployment orders could arrive forcing the colonel to spend his final 6 months of active duty away from his family. Additionally, the argument does not take into account that the June retiree started a second career and began to earn an additional \$10,000 per month while the July retiree was still on active duty. To eliminate the theoretical "what if" scenarios, it is best to simply focus on the amount of pension payments.

Avoiding the Pay Inversion

Before presenting methods to avoid the pay inversion, we must remember that the pay inversion does not happen every year. However, because military members must give at least some notice before retiring, it is almost impossible to determine if a pay inversion will occur

before a member decides upon a retirement date. As a result, members should assume a pay inversion will manifest in their retirement year.

Retiring in the final month of a fiscal quarter represents the primary tactic members can employ to avoid the pay inversion. There is no COLA difference between an April and a June retiree, but the June retiree will receive an extra 2/12ths of 2.5% (about 0.42%) boost to their years of service multiplier. The members who retire in the first month of a fiscal quarter face the full penalty of both retiring in a later quarter with a lower COLA and receiving the minimum amount of fractional years of service available within that quarter. No, a later quarter is not guaranteed to have a lower COLA, but the quarterly COLA has never increased within a single year in any of the 73 quarterly COLAs that have been published during the period of High-3 retirements.³⁶ No July - September COLA has ever been higher than the same year's April - June COLA.³⁷ Likewise, no April - June COLA has ever been higher than the same year's January - March COLA.³⁸

The follow-up tactic members can employ to avoid the pay inversion is to avoid retiring in September even though it is the final month of a fiscal quarter. Remember that a September retiree's COLA is based on the difference between the measure of inflation between A) April - June and B) July - September. Because inflation tends to go up over time and because COLA increases as inflation rises, there is not enough time between April - June and July - September to make any real impact to inflation. It is not just September; a retirement in any month of the third quarter exacerbates the pay inversion.

To explain further the importance of avoiding a third quarter retirement, keep in mind that almost no active duty members know there is a separate formula for the first COLA or even such a thing as a first COLA. If they give it any thought at all, they logically believe that the

first COLA is a prorated portion of the COLA received by those who have been retired for more than a year. It seems logical to think that January - March retirees should receive 75% of the annual COLA because they have been retired for 75% of the year by the time the next December 1 arrives. Likewise, it seems logical for April - June retirees to receive 50% of the annual COLA and for July - September retirees to receive 25% of the COLA. This is basically the formula used to apply the first COLA to federal employee pensions and Social Security pensions.³⁹ If we apply this prorated logic to TABLE 2, it shows how anemic the third quarter COLAs have been during the period of High-3 retirements. Out of the 16 third quarter COLAs since 2000 (there were 3 years with no annual or quarterly COLAs), only 3 of them have equaled or exceeded 25% of the annual COLA for the same year.⁴⁰ So even though September is the final month of a fiscal quarter, it should be avoided because the third quarter underperforms expectations.

Using 2018's 2.8% annual COLA as an example, we would expect the third quarter COLA to be at least 25% of that, or 0.7%. In fact it was only 0.3%, or about half of what we expected.⁴¹ Meanwhile, the first quarter COLA from 2018 exceeded the mark. We expected the first quarter COLA to be at least 75% of the annual COLA, or 2.1%. It turned out to be 2.4%.⁴² Likewise, the second quarter COLA beat its mark. We expected the second quarter COLA to be at least 50% of the annual COLA, or 1.4%. It came in above that at 1.5%.⁴³

Look back at TABLE 2 again. Out of the 16 first quarter COLAs since 2000, only 1 of them has **NOT** equaled or exceeded 75% of the annual COLA for the same year. In fact, 7 of the 16 first quarter COLAs were exactly 100% of the annual COLA. The first quarter has historically punched above its weight. The second quarter is not far behind. Out of the 16 second quarter COLAs since 2000, only 3 of them have **NOT** equaled or exceeded 50% of the annual COLA for the same year.

Retiring in March is the third tactic active duty members can employ because March is the one month a year guaranteed to have no pay inversion. Remember that according to subparagraph (f) of 10 U.S.C. § 1401a, the Tower Amendment can be applied on the day of retirement only.⁴⁴ When a member retires in March, the quarterly COLAs for all months of the previous year have already been calculated, applied, and paid out. Instead of the pension the March retiree earned on the day of his retirement, if that March retiree could have retired on any of those previous months and earned a bigger pension plus COLA, then the retiree gets the larger amount. At the same time we have already seen that a March retiree can never have a pay inversion with the preceding January or February because they are all 3 in the same fiscal quarter and will receive the same first COLA in December.

How Did We Get Here?

While the pay inversion is significant on a personal level, the \$272 million in government savings over two decades generated by the pay inversion is insignificant in terms of overall spending. Why would the government risk bad press and loss of faith by military members over such an insignificant amount? A case can be made that 2013's automatic and deep budget cuts caused by the Budget Control Act of 2011, also known as Sequestration, resulted in a panic to cut spending wherever possible. The Department of Defense submitted its legislative proposal for the FY14 NDAA before Sequestration unexpectedly went into effect; it did not include any language clarifying when the Tower Amendment should be applied.⁴⁵ The Personnel Subcommittees of the House and Senate Armed Services Committees added the Tower Amendment clarification only after Sequestration went into effect.⁴⁶

In addition, later that same year Congress passed the Bipartisan Budget Act of 2013.⁴⁷ This included a controversial measure (repealed the next year) to reduce military pension

COLAs by 1% for retirees less than 62 years old, ultimately resulting in \$6.2 billion of government savings from 2014 - 2023.⁴⁸ In other words, the FY14 NDAA's clarification of the Tower Amendment served as a proof of concept for larger cost savings in the future.

Conclusion

The Cost of Living Adjustment pay inversion is real and was codified by the 2014 NDAA. It is significant and potentially costs individual retirees tens of thousands of dollars over the course of their retirement. The pay inversion does not manifest every year, but members cannot know for certain about their retirement year until after they retire. As a result, members must assume a pay inversion will manifest in their retirement year. Current active duty members can avoid the pay inversion 1) by retiring at the end of a fiscal quarter, 2) by avoiding a September retirement, and 3) by retiring specifically in March. Life on active duty involves voluntary personal sacrifice. Retirees should not have to sacrifice a portion of their pension just because an esoteric formula favors some months over others. Choose wisely.

APPENDIX A. Average of Highest 36 Months of Pay--All 2008 O-6 Retirees

	Pay Years	2008 Retirement Month											
		January	February	March	April	May	June	July	August	September	October	November	December
Jan-05	24	\$8,174											
Feb-05	24	\$8,174	\$8,174										
Mar-05	24	\$8,174	\$8,174	\$8,174									
Apr-05	24	\$8,174	\$8,174	\$8,174	\$8,174								
May-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174							
Jun-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174						
Jul-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174					
Aug-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174				
Sep-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174			
Oct-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174		
Nov-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	
Dec-05	24	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174	\$8,174
Jan-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Feb-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Mar-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Apr-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
May-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Jun-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Jul-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Aug-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Sep-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Oct-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Nov-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Dec-06	24	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427	\$8,427
Jan-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Feb-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Mar-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Apr-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
May-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Jun-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Jul-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Aug-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Sep-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Oct-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Nov-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036

Dec-07	26	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036	\$9,036
Jan-08	26		\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Feb-08	26			\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Mar-08	26				\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Apr-08	26					\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
May-08	26						\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Jun-08	26							\$9,351	\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Jul-08	26								\$9,351	\$9,351	\$9,351	\$9,351	\$9,351
Aug-08	26									\$9,351	\$9,351	\$9,351	\$9,351
Sep-08	26										\$9,351	\$9,351	\$9,351
Oct-08	26											\$9,351	\$9,351
Nov-08	26												\$9,351
Dec-08	26												
Average of highest 36 months of pay =		\$8,546	\$8,578	\$8,611	\$8,644	\$8,676	\$8,709	\$8,742	\$8,775	\$8,807	\$8,840	\$8,873	\$8,905
Year Multiplier		67.50%	67.71%	67.92%	68.13%	68.33%	68.54%	68.75%	68.96%	69.17%	69.38%	69.58%	69.79%
Monthly Pension at Retirement		\$5,768	\$5,808	\$5,848	\$5,889	\$5,929	\$5,969	\$6,010	\$6,051	\$6,092	\$6,133	\$6,174	\$6,215
First COLA		5.00%	5.00%	5.00%	3.80%	3.80%	3.80%	1.20%	1.20%	1.20%	0%	0%	0%
Monthly Pension After COLA		\$6,057	\$6,099	\$6,141	\$6,112	\$6,154	\$6,196	\$6,082	\$6,123	\$6,165	\$6,133	\$6,174	\$6,215
Annual Pension After COLA		\$72,681	\$73,184	\$73,689	\$73,348	\$73,850	\$74,355	\$72,986	\$73,481	\$73,977	\$73,592	\$74,086	\$74,582

APPENDIX B. Average of Highest 36 Months of Pay--All 2008 E-8 Retirees

	Pay Years	2008 Retirement Month											
		January	February	March	April	May	June	July	August	September	October	November	December
Jan-05	24	\$4,224											
Feb-05	24	\$4,224	\$4,224										
Mar-05	24	\$4,224	\$4,224	\$4,224									
Apr-05	24	\$4,224	\$4,224	\$4,224	\$4,224								
May-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224							
Jun-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224						
Jul-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224					
Aug-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224				
Sep-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224			
Oct-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224		
Nov-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	
Dec-05	24	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224	\$4,224
Jan-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Feb-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Mar-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Apr-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
May-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Jun-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Jul-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Aug-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Sep-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Oct-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Nov-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Dec-06	24	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355	\$4,355
Jan-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Feb-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Mar-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Apr-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
May-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Jun-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Jul-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Aug-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Sep-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Oct-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Nov-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451

Dec-07	26	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451	\$4,451
Jan-08	26		\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Feb-08	26			\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Mar-08	26				\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Apr-08	26					\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
May-08	26						\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Jun-08	26							\$4,870	\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Jul-08	26								\$4,870	\$4,870	\$4,870	\$4,870	\$4,870
Aug-08	26									\$4,870	\$4,870	\$4,870	\$4,870
Sep-08	26										\$4,870	\$4,870	\$4,870
Oct-08	26											\$4,870	\$4,870
Nov-08	26												\$4,870
Dec-08	26												
Average of highest 36 months of pay =		\$4,343	\$4,361	\$4,379	\$4,397	\$4,415	\$4,433	\$4,451	\$4,469	\$4,487	\$4,505	\$4,523	\$4,541
Year Multiplier		67.50%	67.71%	67.92%	68.13%	68.33%	68.54%	68.75%	68.96%	69.17%	69.38%	69.58%	69.79%
Monthly Pension at Retirement		\$2,932	\$2,953	\$2,974	\$2,996	\$3,017	\$3,038	\$3,060	\$3,082	\$3,103	\$3,125	\$3,147	\$3,169
First COLA		5.00%	5.00%	5.00%	3.80%	3.80%	3.80%	1.20%	1.20%	1.20%	0%	0%	0%
Monthly Pension After COLA		\$3,078	\$3,101	\$3,123	\$3,109	\$3,132	\$3,154	\$3,097	\$3,119	\$3,141	\$3,125	\$3,147	\$3,169
Annual Pension After COLA		\$36,940	\$37,207	\$37,475	\$37,313	\$37,580	\$37,847	\$37,161	\$37,424	\$37,688	\$37,503	\$37,765	\$38,029

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