# The Value of Working Longer Hours for Promotion

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## INTRODUCTION

An Agency senior executive presiding over a promotion ceremony for new grade thirteens announced that those being promoted would be away from home more, working longer hours as they vied for promotion to the next grade. Agency managers have long held out the promise of promotion to induce the work force to accept field tours, shift work, and especially longer hours. The rewards were forthcoming during the promotion boom years in the 1980s, but, as promotion rates continue to shrivel in the 1990s, is the offer still good? Accepting at face value the bargain of longer hours for future promotion, can management hold up its end? Even if it can, will the future promotion to grade fourteen be worth the additional effort required to gain the promotion? This article proposes to (1) assess the economic value of such a promotion relative to its costs; (2) consider the implications; and (3) advocate broader use of temporary promotion.

Downsizing, both in government and in the private sector, has led to increasing demands on the remaining workers to boost their output to compensate for a diminished staff. Senior management boasts of "doing more with less," while for the work force this usually means doing more but getting less. Many Agency managers have long placed great emphasis on long hours. For themselves it is an emblem of the demands and status of their position – for their subordinates a sign of loyalty and dedication. Our current personnel evaluations do not allow qualitative comparisons of performance, and lengthy work days often are regarded as a rough measure of effort. Given the remarks of the senior executive cited and the Agency's attachment to timekeeping, the approach seems defensible.[1]

If one views promotion as a reward for superior effort, specifically as deferred compensation for longer hours, the real value of working those longer hours may be estimated. For clarity of this analysis, "working hard" will be quantitatively defined as working ten extra hours each week – or 500 extra hours each year.

## ANALYSIS

To estimate the value of a future promotion to grade fourteen for an employee newly promoted to grade thirteen step two, the annual salary and Civil Service Retirement

1. In one group's example of a completed promotion recommendation, item two begins: "Routinely works many extra hours each week to achieve exceptionally high goals. . . ."

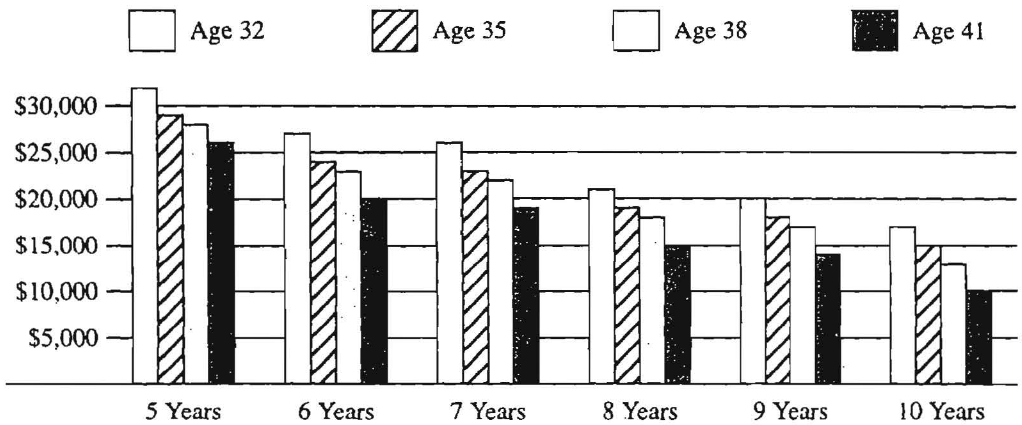
System (CSRS) retirement benefits if one remained a grade thirteen until retirement at age fifty-five were subtracted from the salary and retirement benefits if one were promoted to grade fourteen after intervals of five to ten years. Outside of this range, promotions to grade fourteen are rare; it appears that there is a de facto maximum time in grade. Suppose a new grade-thirteen employee aged thirty-two is promoted again in only five years, the gross benefit of promotion over a lifetime appears to be large, $320,000. From this figure one must subtract federal, state, and local income taxes at marginal rates (35.5 percent) and – until retirement – contributions to CSRS (7 percent) and to Medicare (1.45 percent). While working, one keeps about fifty-six cents of every dollar earned. This yields a net benefit of about $197,000. But one very important further refinement is needed.

Since the *net present value* of a dollar to be received years in the future is not as great as the value of a dollar received today – the effect of time and interest – the net present value of the net benefit for each year was calculated using a 9 percent discount rate.[2] This is essentially the same as saying, for example, that a savings bond that will be worth its $1,000 face value at maturity in twelve years costs only $500 if purchased today. So each dollar of the bond to be received in twelve years is worth just 50 cents today, given that the bond has an interest rate of about 6 percent. Net present value is the method of comparing the real value of sums of money received at differing times, given an interest rate. Thus the net present value of promotion to grade fourteen for this employee is actually $32,000. This sum represents the lifetime value of promotion in today's dollars.

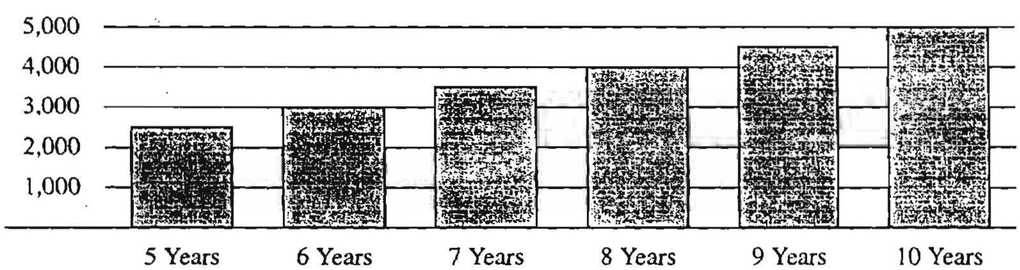
As the employee's age at promotion to grade thirteen and length of time in grade to promotion to grade fourteen increase, the net present value of promotion to grade fourteen decreases. The closer one is to retirement when promoted to grade fourteen, the fewer years one has to enjoy the higher salary and to build up his or her "high three" (the annual salaries for the last three years prior to retirement that are averaged to calculate the retirement benefit). Estimated net present value of promotion for representative ages at promotion to grade thirteen and years in grade to promotion to grade fourteen are shown in figure 1. Note that for a forty-one-year-old employee newly promoted to grade thirteen, promotion to grade fourteen in ten years has a net present value of $10,200 – less than a third of the net present value of the same promotion for the thirty-two-year-old employee promoted to grade fourteen in five years.

2. The selection of an appropriate discount rate is always contentious. A higher discount rate would yield substantially lower estimates of net present value. Other important assumptions yielding this optimistic estimate of the value of promotion are that future pay and retirement benefits will keep pace with inflation and that retirement benefits will continue to be based on the "high three." Among the other assumptions in the analysis are that the employee is (1) under CSRS; (2) retires at age fifty-five with thirty years federal service and thus, with credited leave, receives a pension equal to 60 percent of average of his or her "high three"; and (3) has a life expectancy of eighty years (as assumed by Personnel). A more sophisticated analysis would involve the probability of promotion at various intervals.

*For a new grade thirteen employee, the net present value of a future promotion to grade fourteen declines as the time in grade to that promotion increases, as shown below for a new grade thirteen at representative ages.*




*But the cumulative number of extra hours worked for promotion increases as time in grade increases.*




*And so the effective gross hourly wage for the extra hours worked falls even more rapidly for every extra year in grade.*

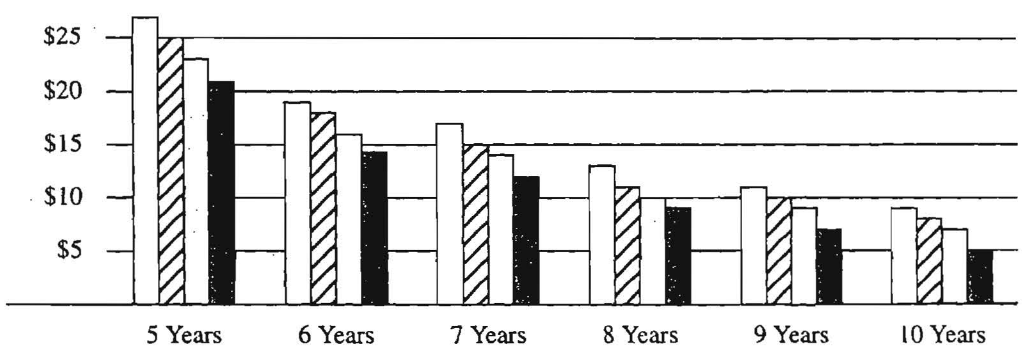



**Fig. 1.**

Although management treats all grade-fourteen promotions alike, they are not of equal value to the employee. Their value is a function of the employee's time in grade and age. Given the same age at promotion to grade thirteen, every additional year in grade reduces the value of the future promotion to grade fourteen by an average of 12 to 17 percent. Given the same time in grade to promotion to grade fourteen, every additional year of age at promotion to grade thirteen reduces the value of further promotion by 2 to 6 percent. Patience is not a virtue in the working world.

Now that the net present values of promotion to grade fourteen have been estimated for various ages and times in grade, they may be compared to the additional effort required to achieve the promotion. Again, this effort is arbitrarily defined as 500 extra hours per year. Simply dividing the net present value by the total number of extra hours worked does not correctly adjust for the time value of money. Instead the estimated effective wage is the value equal to net present value of promotion (before taxes and withholdings) divided by the sum of the annual extra hours worked discounted at 9 percent.[3]

Because the total number of extra hours worked by the promotion-seeking employee rises as years in grade increase, the estimated hourly wage paid for the extra hours falls more rapidly than does the net present value of promotion. For the thirty-two-year-old new grade thirteen, promotion in five years (2,500 extra hours) will be compensated at $27.15 per hour. If this promotion takes ten years (5,000 extra hours), the effective wage falls to under $8.70 per hour. This is an annual decline of over 20 percent. For a new forty-one-year-old grade thirteen, promotion in five years is equal to earning a wage of over $21.45 per hour. Promotion in ten years is equal to a wage of $5.00 per hour – below the $5.15 minimum wage – an annual decline of 25 percent. (By comparison, overtime at the Agency is paid at a maximum of the salary for grade ten step ten, about $21.80 per hour. A janitorial contractor here recently advertised jobs starting at $8.68 per hour.)

## CONCLUSIONS

For a few highly talented, energetic, and lucky employees promoted to grade thirteen in their early or mid-thirties and who have especially good prospects for rapid promotion to the next grade, their sustained additional efforts will be rewarded. A small number of these employees may go on to further promotion, which will add to the recompense for their labors. For most others, however, the time to the next promotion will be so long – and consequently the net present value so low – that *extraordinary* effort is hardly justified, given the low effective hourly rate of compensation. If a higher income is needed, one might be better off abandoning any extra effort for promotion and seeking instead either

3. For example, the income from working 500 hours at $10.00 per hour is $5,000. But if this $5,000 income is earned incrementally over the next twelve months, it has a net present value of about $4,789 ($5,000 divided by 1.09 to the power of 0.5). Earned ten years from now, this same income has a net present value of about $2,205 ($5,000 divided by 1.09 to the power of 9.5). Because wages typically are paid out in increments, with half the income received by the middle of the year, the exponents are half instead of whole numbers.

overtime or after-hours, part-time employment. Working long, hard hours at the Agency to gain promotion to better provide for yourself or your family has an uncertain outcome and probably is a poor economic decision.

The annual promotion rate from grade thirteen to fourteen was 3.5 percent in FY95 and is projected to decline (by almost 6 percent) to 3.3 percent in FY96, and it is expected to be about the same in FY97. Average number of months in grade prior to promotion to grade fourteen was eighty-three months (a month less than seven years) in FY96, up from the low sixties about a decade ago.[4] Given these unfavorable figures, most of the new grade-thirteen employees in their forties or even late thirties will never see another promotion. Their extraordinary efforts toward promotion will go entirely unrewarded, unless they derive some value from self-delusion and disappointment.

While a decision on the costs and benefits of promotion is fairly straightforward for the grade-thirteen employee, the appropriate managerial response is less certain. Yet grade-thirteen employees now make up more than 30 percent of the Agency work force, far too large a bloc to ignore. Since I seldom want for candor, I offer some suggestions – drawing from my own experience and observations.

## SUGGESTIONS

***Temporary promotion***. I most strongly recommend that for those positions that are especially demanding and stressful (some of the chief of staff and executive positions) or that result in considerable out-of-pocket expenses (external liaison), temporary promotion should be awarded for as long as one holds the position. The more immediate the reward, the more powerfully motivating it is.

Temporary promotion currently is offered for a very few positions as an inducement or to compensate for extraordinary expenses. Used more widely, temporary promotion would help redress promotion-related dysfunctions of plateaued and stagnated workers. For example, one manager, nearing age fifty, expended colossal energies in a drive for promotion to grade fifteen, only to gain that promotion, opt out of management, and scale back his extraordinary efforts. Criticisms of his actions are unwarranted: he was acting quite rationally with respect to the rewards. He probably saw few opportunities for advancement to higher management and even fewer for further promotion. Management should not rely on the hope that employees will act against employees' self-interest.

An employee who imagines some prospect of promotion typically remains within the same branch or division, usually with the same job, until the promotion arrives. Only then does the employee seek a new position in a new office in an effort to broaden his or her skills, make him/herself more valuable to the Agency, and to one day vie for promotion. As time in grade until the next promotion increases, the length of time spent in a given position likewise increases. Although difficult to measure or to prove, I have a sense that employees now are staying in the same job longer than is optimal for personal career growth or for the Agency's advantage. I submit that, given the choice between staying in one's old job in the hope of being promoted or taking on a new and challenging job with an immediate, temporary promotion, bright and motivated employees will prefer the latter.

I declined to extend a challenging external assignment after the first year. In addition to longer hours, the job entailed extra commuting time of about 500 hours per year and extra commuting and child care expenses of about $4,000 per year. In effect, it was a temporary *de*motion. If I valued the extra commuting hours at even minimum wage, the sum of extra expenses of the job over three years (nearly $19,000) probably would exceed the lifetime value of any future promotion. Some managers may argue that such expenses are solely the business of the employee, but they do govern the career performance of the employee. My advocacy of temporary promotion is disinterested. I am now working just forty hours per week in a lower-cost, lower-stress position at headquarters earning the same gross salary as before, but keeping a higher proportion.

For any senior managers who doubt that the immediate prospect of higher pay is powerfully motivating, eliminate shift differentials and try to fill vacant watch positions with promises that such jobs are "good for your career."

***Work-force Structure.*** There are limits to which incremental improvements in training, organization, and equipment can compensate for a reduced work force. The law of diminishing marginal returns applies here as it does elsewhere. Management's demands that fewer and fewer employees attempt to continue to perform all the current functions of the Agency and take on new ones – in effect demanding employees work longer and harder hours – unnecessarily stress the remaining work force. The demands diminish our ability to skillfully execute top-priority functions and leave the Agency poorly equipped to respond to new priorities. Continual demands on the remaining workers to increase effort and productivity without any corresponding recompense will more surely lead to higher levels of cynicism than to higher productivity. As the Agency is downsized, managers must recognize that lower-priority activities must correspondingly be eliminated.

Having toured around the Agency for a few weeks last year looking for a new job (one of the many benefits of a field tour), I was struck by the vast disparity of work loads not only from office to office but also from employee to employee of the same grade in the same office. Again, there seems to be a growing mismatch between pay grade and degree to which a job is responsible, difficult, or disagreeable. Management's tendency to hoard employees and institutional impediments to personnel transfers from directorate to directorate, even between and within groups, makes it more difficult to correct these imbalances, frustrates employees, and contradicts senior management's exhortations about "one team, one mission." Intra-Agency job mobility and promotions are much too slow to even begin to correct this. Temporary promotion could help to redress some imbalances and, again, help to facilitate intra-Agency job mobility.

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4. The extra fifteen months in grade have the effect of reducing the lifetime value of promotion by 14 to 21 percent, depending on the age of the employee.

***Better Distribution of Plums.*** Recognizing the promotion rate slowdown, management should also begin to emphasize more the breadth of career, rather than height, and more carefully consider the demands of a given position relative to its intrinsic rewards. Put another way, if management can no longer effectively offer a traditional career – a succession of positions with increasing responsibilities, status, and pay – then they should offer a succession of interesting and challenging jobs.

A few managers have told certain employees that they have little or no prospect for promotion, and that they ought to find a job that they like and stay in it. This monopolizes desirable jobs; some call it retirement in place. Now the number of truly excellent jobs that are intrinsically very rewarding is limited and smaller than the number of routine, difficult, and thankless jobs at the Agency. Where practicable, the tasks of the former ought to be divided up and allocated among the latter. Where not practicable, tenure in such intrinsically rewarding jobs should be limited and be filled as a reward or as an incentive. For example, offer an express contract that, upon satisfactory completion of an assignment in a difficult and thankless job, the employee will be assigned to a job that entails attractive opportunities for travel or education.

Management should not look to the technical track as a remedy for the effects of the decline in the promotion rate. If anything, the three levels of titles appear to be a mimicry of promotion. It offers little or no substantial benefit to the employee and already looks like another impediment to promotion.

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***"Alan Pierce Riter" (pseudonym), promoted to grade thirteen at age thirty-seven, no longer works extra hours in hope of gaining promotion.***