

APPENDIX B

REPORT OF THE TECHNICAL ADVISORY GROUP

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TAG ASSESSMENT OF JPC REPORT: “A Summary of SHWG Research Tasks”

Joel Popkin and Company's (JPC) “report on reports” (54-pages plus glossary and bibliography) provides not only a digest but an excellent synthesis of all the research commissioned by the Safe Harbor Working Group and carried out by JPC. The nine commissioned tasks constituted an exceptionally broad inquiry into the theory and practice of compensating employees equitably in locations that differ in terms of both the prices of marketed goods and services and economic and environmental conditions. Its immediate application is to Federal employees working in non-foreign areas outside the contiguous 48 states, but much of its analysis and methodology is of wider interest.

The report suggests many improvements in the methods used by the Office of Personnel Management (OPM) for measuring price differentials, and it examines factors that should be considered in a cost-of living allowance (COLA) but are not included in the OPM model. The TAG is in general agreement with JPC. In particular, we concur that a possible problem at the implementation stage lies in the statutory 25% cap on the COLA rate. The cap is an arbitrary limit that does not appear to be based on evidence concerning the maximum amount necessary to compensate for the prices and other conditions faced by employees in the COLA areas. It may prove to be a barrier to achievement of equal real earnings.

This assessment of the JPC report addresses each of the main issues studied in turn. The section headings refer to the Summary Report for readers who wish to refresh their recollections of the problems being addressed.

General Aspects of Price Index Estimation (Report Section 4.1)

The current COLA methodology is restricted to measurement of relative price level differences between the areas in question and the Washington, DC metropolitan area, with prices weighted in proportion to national expenditure patterns. JPC examined this price comparison methodology, and recommends a number of changes to bring this portion of the model into compliance with reasonable practice.

OPM currently weights prices for Washington based on national expenditure patterns. While JPC judges continued use of a Laspeyres, or base-weighted, index more practical than alternatives that require use of spending patterns for each COLA area, it recommends using the base area for both prices and weights. A further refinement of the weights is suggested to make them represent the average spending pattern of middle-income spending units rather than a three income-level aggregate spending pattern. Finally, a procedure for updating weights that reflect patterns from earlier periods is proposed. The TAG supports these improvements, which will bring the model into conformity with existing practice in most statistical agencies and should make it more precise.

The report considers the composition of the “market basket” used for pricing, and develops several ways that price measurement can be improved. First, it is not necessary to use identical market baskets or outlets for every COLA area’s price index. It is only required that the same items and outlets be observed in the base area and the COLA area in question.

Allowing use of differing market baskets among areas would have two advantages over the current practice. First, the current practice of pricing the same items in all COLA areas presents difficult collection problems, especially if one is trying to take account of "special needs" in each area. Second, pricing items that may be specific to one COLA area is complementary to another proposal, namely that price surveys be done on three-year rotating basis. Triennially rotating surveys among Alaska, Pacific Islands, and Caribbean Islands areas would allow some tailoring of the market baskets and reduce survey costs.

The report also examines the current selection of items and urges a better balance of the number of items and quotes with the importance of the expenditure categories. For example, more emphasis on (possibly) hard-to-measure items in the medical area and less on some food categories could improve index precision. Finally, a point-of-purchase survey (POPS) of employees in the COLA areas is proposed as a standard method of selecting outlets for pricing items in the market basket. The TAG supports the JPC report with respect to POPS and also notes that this in many cases can be facilitated through the mechanism of employee advisory committees that is being recommended by the SHWG. The POPS might be done on a six-year cycle and with a simplified CATI (Computer Assisted Telephone Interview).

Housing or Shelter Services (Report Section 4.2)

JPC intensively studied housing price measurement, consistent with both the amount of weight in the index and the amount of dissatisfaction that this component has generated over the years. Housing price differences are a primary source of inter-area living cost differentials. A clear conclusion of the need to make some adjustment of housing prices for quality differences between the COLA areas and Washington, DC emerged from the studies; that is, the studies demonstrated that prevailing house quality is lower in the COLA areas than in Washington. This adjustment can be made using hedonic regression on individual dwelling characteristics or by using a matched model approach. The latter is probably practical only if the source of data is realtors, and here the problem is securing their cooperation. It appears that a face-to-face survey, whether of occupants or realtors, is necessary to elicit credible evidence.

The TAG agrees with JPC that the current practice of deriving estimates of the price of housing services from estimates of housing prices is unsatisfactory because of the way it mixes capital gains or losses with the value of current house use, and because this method requires a number of assumptions about mortgages and maintenance that are necessarily somewhat questionable. Rental equivalence estimates made by homeowners have replaced earlier estimates in the CPI, and the experimental survey of employees carried out by JPC showed generally consistent and promising results. While the TAG doubts the sample should be limited to employees (because of self-interest bias), a general household sample, including both renters and owners, appears feasible in those parts of the COLA areas where substantial numbers of employees live.

The TAG was closely involved in the analysis of the housing data from the employee survey, and concurs with the suggestions and alternatives provided in the JPC report. Because the tentative findings of JPC's experimental survey might suggest substantial changes for some areas if rental equivalence is adopted, it will be useful to allow gradual substitution of a quality-adjusted rental equivalent shelter price for the current measure.

Transportation (Report Section 4.3) and Medical Goods and Services (Report Section 4.4)

JPC also studied recurring issues concerning transportation and medical goods and services, and made worthwhile suggestions for improving their treatment. These budget items are similar in that some part of each is difficult to capture in a price index and hence remain among the items to be considered for other types of compensation. In addition, there is a close relation between transportation and medical care when securing appropriate treatment requires substantial travel.

In COLA areas residents spend a larger percentage of their income on transport even though prices of transport services are higher in the areas and incomes are lower. This indicates an unusual need for transport in these areas. TAG agrees with JPC that there is an additional cost of living for transport needs faced by employees in the COLA areas.

JPC made recommendations for improving the item selection for medical items with which TAG concurs. However, even if these improvements were made, there is substantial evidence suggesting that COLA area employees face difficult problems of quality and/or availability of medical services. This in turn may be reflected in the willingness or necessity for employees and accompanying family to travel for medical purposes more than in the contiguous 48 states. The TAG and JPC agree that to the extent possible price comparisons should be made in the medical category, but that this is unlikely to account for all the differences between the COLA areas and Washington, to the disadvantage of the former. There was not agreement among the TAG on the best way to deal with compensating these factors, but it did agree that the needs are real and if individualized compensation cannot be made they should be among the factors considered in the non-price component discussed below.

Education (Report Section 4.5)

The report gives a sound quantitative and conceptual framework for considering the extra cost and necessity of non-public education. The research demonstrates that in several of the areas, the percentage of school age (K-12) children of employees enrolled in private schools greatly exceeds national or Washington levels; these use rates are not highly correlated with income. The data as well as more anecdotal evidence indicate that the public education system in some COLA areas falls far below standards prevailing in the contiguous 48 states. The report recommends a sound solution for compensating COLA area employees who encounter these conditions, but again, if individualized compensation is not made, educational costs should be considered among the non-price factors.

The report suggests means of compensating for out of area tuition costs for post-secondary schooling. The TAG is not persuaded that these costs are distinctly higher than costs for similar parents in the base area.

Income Taxes and Government Services (Report Section 4.8)

JPC conducted substantial research regarding tax and service benefit differences between the base and COLA areas. While equalization of net, real disposable earnings is an attractive objective, achievement of that goal can be very difficult for two reasons. First, there is the problem of valuing government services in terms of how much they replace household spending. Second, the impact of taxes is dependent on the income and composition of an earner's household. The TAG

concur that an explicit treatment of all taxes and benefits in the determination of COLA rates in all areas is desirable, but impractical for some areas.

The report attempts the first analysis described above – to value government services in terms of how much they replace household spending. Both the TAG and the Working Group felt that JPC’s results were valuable and informative with respect to all areas except Alaska. However, the valuation problems, including the extent to which additional expenditures reflect additional benefits or value to residents, were particularly pronounced in Alaska. The TAG does not believe that an analysis can be developed that would adequately address the relative benefits provided to the citizens of that state. Estimates of real per capita government spending in other areas are substantially lower than for Washington DC, however. While impossible to capture in a formula, these differences, as evidence of lower levels of government service benefits, should be taken into account when non-price factors are considered.

Treatment of Retirement and Insurance Savings (Report Section 4.7)

The report considers OPM’s practice of including retirement and insurance savings with a price of 1.00 and notes that such inclusion is unusual in a cost of living index. In the place-to-place context, this approach implies that the proceeds of such saving will be spent in a price environment similar to that of the base area. The TAG agrees that only current consumption elements should be included in the price component of the COLA but the rate should be applied to total base income (not just current consumption expenditures). This is equivalent to pricing savings at the average of current consumption price relatives.

Locality Pay (Report Section 4.8)

The report also analyzes the locality pay program, both as an alternative to a COLA and in terms of its impact on the pay rates of employees in the base area. Essentially, it concludes that locality pay is not a sufficient alternative to a COLA supplemented by a direct adjustment for non-price factors, and that the current methodology under-compensates COLA area employees to the extent that it ignores the locality pay received by employees in the base area.

Theory predicts that in a world of perfect information and mobility, pay rates would mirror cost of living differences between areas, including amenities and disamenities. In fact JPC found this not to be the case in the real world (at least between the contiguous-48 states and the COLA areas), but JPC had no measures of amenities and disamenities. JPC concluded that that direct measures of price and non-price factors would be a more accurate as a means of equalizing real earnings than an alternative application of locality pay to the COLA areas.

Due to locality pay, the actual pay rates in the base area exceed the scheduled rates that are the base to which the COLA rates are currently applied. JPC finds that if equalization of real earnings is the objective, the actual pay of base area workers must be taken as the base and then augmented according to the COLA rate for each area. The TAG agrees with this conclusion.

Non-Price Factors (Report Section 4.9)

The “cost” of living encompasses a broad range of price and non-price factors. As indicated above, OPM’s past methodology focused on relative price levels, and did not consider

components of the cost-of-living other than relative price levels. JPC closely examined the consideration of non-price factors, both in terms of practices of other entities which administer territorial cost-of-living programs and in terms of economic theory. Dr. Charles Leven, a leading expert in this area, contributed to the JPC report an assessment of the state of research on non-price factors. He proposed a process that would first take into account relative price levels, and next adjust for any unique quantifiable needs such as education, discussed above. Leven would then adjust for non-quantifiable needs. Both JPC and TAG agree with this approach.

JPC also examined the practices of other major compensation systems in the way they handle hard to quantify items and other non-price factors. One approach is to simply increase the weights of some items without reducing others. Existing practice includes allowances that cover specific items like education as well as allowances that cover a number of factors that are difficult or impossible to price. Each duty station is usually placed in a group for which different levels of allowances are prescribed. The net effect of these allowances is to increase the disposable income of employees beyond that which would be called for by price differences alone. JPC suggests that a similar procedure should be followed with the COLA program, and the TAG agrees.

The summary report, and the task reports that lie behind it, identify a large number of factors that are difficult or impossible to quantify in any formula or model. The factors differ in nature and intensity among the COLA areas. Some of these factors are the effects of remoteness and isolation; relatively few suppliers of goods and services, and therefore less choice; and availability and quality of medical care. Others involve environmental conditions, some of which may be extreme and result in both higher costs and discomfort.

When taking account of these non-quantifiable factors, it is necessary to keep in mind what has been done with other potentially quantifiable factors. JPC has made a number of suggestions that would change the method of comparing prices among the COLA areas and if these are implemented they would change the existing COLA rates in directions that are not easy to predict. To the extent that OPM modifies the price comparisons to treat difficult to quantify special needs like air travel, TAG agrees with JPC that these should not be double-counted when one is integrating non-price and difficult to quantify items into a total package. By the same token, if quantifiable differential needs, such as pre- and post-high school education, are not separately allowed for or in any way incorporated into the price calculation, then these must be taken into account in the non-price adjustment.

The TAG agrees with JPC and Leven that some sort of integration is necessary to arrive at an agreed supplement to the price component of the COLA rate, which must in turn depend on how much of the quantifiable items have been included into the COLA rate. As the JPC report makes clear, this integration will of necessity involve subjective judgments in the process of putting numbers on non-price factors. One way to arrive at workable levels of adjustment for non-price factors is through consensus, negotiation and bargaining among parties with partially opposing interests -- parties who are nonetheless united by a shared interest in reaching an agreement acceptable to all.

The TAG does not endorse any specific levels for these adjustments, nor does it believe that the adjustments will be the same in all COLA areas. Because there is a margin of error in measuring the non-price factors, TAG believes that putting COLA areas into two or three groups may be as fine-tuned as one can make any system of adjustment. Again, in arriving at such a grouping the

extent to which COLA areas are disadvantaged compared to Washington needs to consider the net effect of amenities and disamenities as well as the extent to which any differential needs are not otherwise taken into account in the price comparison.

Conclusion.

JPC's report provides an excellent synthesis and interpretation of a great deal of high quality research. Its suggestions for reforms of the COLA system are well grounded in both contemporary methodology and evidence from the COLA program and other compensation programs. It is altogether a very professional product. It is not a ready-made implementation blueprint, however. A large amount of effort is needed to give the suggestions real life, and some change and compromise must be expected.