

# REPORT ON LOCALITY-BASED COMPARABILITY PAYMENTS FOR THE GENERAL SCHEDULE

*ANNUAL REPORT  
OF  
THE PRESIDENT'S PAY AGENT  
2010*



March 2011

# The President's Pay Agent

Washington, DC

March 29, 2011

## MEMORANDUM FOR THE PRESIDENT

### **SUBJECT: Annual Report on General Schedule Locality-Based Comparability Payments**

Section 5304 of title 5, United States Code, requires the President's Pay Agent to submit a report each year showing the locality-based comparability payments we would recommend for General Schedule employees in the following fiscal year if the adjustments were to be made in accordance with the aforementioned statute. In keeping with this statutory requirement, this report shows the adjustments that would be required for January 2012 under section 5304, absent additional overriding legislation or exercise of your alternative plan authority to control locality adjustments.

Our plans for locality pay area boundaries in 2012 and our decisions on the methodology for comparing Federal and non-Federal rates of pay also are contained in this report. We reviewed and considered the Federal Salary Council's recommendations for changes in locality pay areas and appreciate their diligence and hard work. However, we are unable to adopt the Council's recommendations to increase the number of locality pay areas and expand existing locality pay areas. We do not believe it is appropriate to make substantive changes in the General Schedule locality pay system at this time given the anticipated migration to the use of a new survey methodology (incorporating the Occupational Employment Statistics program), the continuing economic emergency affecting the general welfare, and the recently enacted legislation freezing Federal pay in 2011 and 2012.

As has been noted in earlier reports and as we have discussed in other venues, there is a need to consider reforms of the white-collar Federal pay system. We have serious concerns about a process that requires a single percentage adjustment in the pay of all white-collar civilian Federal employees in each locality pay area without regard to the differing labor markets for major occupational groups. In addition, we believe the underlying model and methodology for estimating pay gaps should be reexamined to ensure that private sector and Federal sector pay comparisons are as accurate as possible.

### **The President's Pay Agent:**

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## INTRODUCTION

The Federal Employees Pay Comparability Act of 1990 (FEPCA) replaced the nationwide General Schedule (GS) with a method for setting pay for white-collar employees that uses a combination of across-the-board and locality pay adjustments. The policy for setting General Schedule pay contained in 5 U.S.C. 5301 is that—

- (1) there be equal pay for substantially equal work within each local pay area;
- (2) within each local pay area, pay distinctions be maintained in keeping with work and performance distinctions;
- (3) Federal pay rates be comparable with non-Federal pay rates for the same levels of work within the same local pay area; and
- (4) any existing pay disparities between Federal and non-Federal employees should be completely eliminated.

The across-the-board pay adjustment provides the same percentage increase to the statutory pay systems (as defined in 5 U.S.C. 5302(1)) in all locations. This adjustment is linked to changes in the wage and salary component, private industry workers, of the Employment Cost Index (ECI), minus 0.5 percentage points. Locality-based comparability payments for GS employees, which are in addition to the across-the-board increase, are mandated for each locality having a pay disparity between Federal and non-Federal pay of greater than 5 percent.

As part of the annual locality pay adjustment process, the Pay Agent prepares and submits a report to the President which—

- (1) compares rates of pay under the General Schedule with rates of pay for non-Federal workers for the same levels of work within each locality pay area, based on surveys conducted by the Bureau of Labor Statistics;
- (2) identifies each locality in which a pay disparity exists and specifies the size of each pay disparity;
- (3) recommends appropriate comparability payments; and
- (4) includes the views and recommendations of the Federal Salary Council (FSC), individual members of the FSC, and employee organizations.

The President's Pay Agent consists of the Secretary of Labor and the Directors of the Office of Management and Budget (OMB) and the Office of Personnel Management (OPM). This report fulfills the Agent's responsibility under 5 U.S.C. 5304(d), as amended. It recommends locality pay adjustments for 2012 if such adjustments were to be made under 5 U.S.C. 5304.

## **ACROSS-THE-BOARD AND LOCALITY ADJUSTMENTS**

Under FEPCA, General Schedule salary adjustments, beginning in January 1994, consist of two components: (1) a general increase linked to the Employment Cost Index and applicable to the General Schedule, Foreign Service pay schedules, and certain pay schedules established under title 38, United States Code, for Veterans Health Administration employees; and (2) a General Schedule locality adjustment that applies only to specific areas of the United States where non-Federal pay exceeds Federal pay by more than 5 percent.

The formula for the general increase (defined in section 5303 of title 5, United States Code) provides that the pay rates for each statutory pay system be increased by a percentage equal to the 12-month percentage increase in the ECI, minus one-half of one percentage point. The 12-month reference period ends with the September preceding the effective date of the adjustment by 15 months.

The ECI reference period for the January 2012 increase is the 12-month period ending on September 30, 2010. During that period, the ECI wage and salary component, private industry workers, increased by 1.6 percent. Therefore, the January 2012 general increase, if permissible and granted, would be 1.1 percent (1.6 percent minus 0.5 percentage points).

The locality component of the pay adjustment under FEPCA was to be phased in over a 9-year period. In 1994, the minimum comparability increase was two-tenths of the “target” pay disparity (i.e., the amount needed to reduce the pay disparity to 5 percent). For each successive year, the comparability increase was scheduled to be at least an additional one-tenth of the “target” pay disparity. For 2002 and thereafter, the law authorized the full amount necessary to reduce the pay disparity in each locality pay area to 5 percent. However, the schedule under FEPCA has not been followed.

## LOCALITY PAY SURVEYS

Under FEPCA, we must use salary surveys conducted by the Bureau of Labor Statistics (BLS) to set locality pay. Commencing with the 1996/97 surveys, BLS implemented a new survey design for its salary surveys. The new survey program, called the National Compensation Survey (NCS), was used in all BLS salary surveys started after September 1996. NCS uses probability sampling of occupations within survey establishments, rather than a fixed job list with detailed job descriptions, as had been used in the past. BLS has now developed a model that would permit us to use Occupational Employment Statistics (OES) data in conjunction with NCS data for locality pay. The Fiscal Year 2011 budget proposed adopting this new methodology. Both the NCS and NCS-OES methodologies are included in this report.

The original NCS survey methods were not immediately used in the locality pay program. The Pay Agent directed BLS to make improvements in the survey methods.

Four of the five NCS improvements are fully incorporated into surveys used this year:

- 1) The linkage of Federal and non-Federal jobs by developing a crosswalk between General Schedule occupations and the Standard Occupational Classification (SOC) System to permit weighting data by Federal employment.
- 2) The development of methods to identify and exclude survey jobs that would be graded above GS-15 in the Federal Government.
- 3) The development of an econometric model based on survey data to estimate salaries for jobs not found in the probability samples.
- 4) The development and implementation of better methods for grading supervisory jobs selected by probability sampling.

BLS continues to phase in the fifth improvement, which is the use of a four-factor job grading system with job family guides, as it replaces a portion of its establishment sample each year. BLS replaces all of its State and local government sample at the same time approximately every 10 years, and the private industry sample is replaced over a 5 year period. This improvement is included in 82 percent of the data this year and will be completed in all survey establishments in surveys delivered in 2011. It is designed to improve grade leveling under the NCS program. All of the improvements are described in the 2002 Pay Agent's Report to the President.

### **Industrial and Establishment Size Coverage**

As required by FEPCA, BLS surveys used for locality pay include collection of salary data from private industry and State and local governments, which have large numbers of workers, especially in certain occupations that are unique to government functions. Before FEPCA, BLS surveys for the pay comparability process covered only private sector goods-producing and service-producing industries.

BLS delivered data covering establishments of all employment sizes again this year. BLS collected data from a total of 22,345 establishments. In the 31 separate metropolitan locality pay

areas (including the reinstated Raleigh survey), BLS collected data from 11,639 establishments. The Rest of U.S. (RUS) locality pay survey covered 182 areas, including 77 additional metropolitan areas, 22 micropolitan areas, and 83 non-metropolitan counties or county clusters. In the RUS area, data were collected from 10,706 establishments.

The NCS program is undergoing a multi-year transition from a sample of areas based on the Office of Management and Budget (OMB) December 1993 metropolitan area definitions to a new sample of areas based on the December 2003 OMB area definitions. The NCS program is phasing in new metropolitan and micropolitan areas as defined by OMB and county clusters defined specifically for the NCS; at the same time, some areas under the December 1993 OMB definitions are being phased out of the sample. A new government sample was completed for the July 2008 delivery. See **Appendix IV** of the 2002 Pay Agent's report for a summary of the BLS data collection cycle.

The industry scope of the surveys includes private goods-producing industries (mining, construction, and manufacturing); private service-providing industries (trade, transportation, and utilities, information, financial activities, professional and business services, education and health services, leisure and hospitality, and other services); and State and local governments. Agriculture, forestry, fishing and hunting, and private households were excluded.

### **Occupational Coverage**

Under the NCS program, BLS uses random sampling techniques to select occupations for survey within an establishment. The occupations are selected and weighted to represent all non-Federal occupations in the location and, based on the crosswalk published in **Appendix VII** of the 2002 Pay Agent's report, also represent virtually all GS employees. OPM provided the crosswalk between GS occupational series and the Standard Occupational Classification (SOC) system used by BLS to group non-Federal survey jobs. OPM also provided March 2009 GS employment counts for use in weighting survey job data to higher aggregates. (BLS completed delivery of the most recent NCS surveys in July 2010, before March 2010 GS employment data became available.)

### **Matching Level of Work**

In the NCS surveys, BLS field economists cannot use a set list of survey job descriptions because BLS uses a random sampling method and any non-Federal job can be selected in an establishment for leveling (i.e., grading). In addition, it is not feasible for BLS field economists to consult and use the entire GS position classification system to level survey jobs because it would simply take too long to gather all the information needed. This would also place an undue burden on survey participants.

To conduct grade leveling under the NCS program, OPM developed a simplified four-factor grade leveling system with job family guides. These guides were designed to provide occupational-specific leveling instructions for the BLS field economists. The four factors were derived and validated by combining the nine factors under the existing GS Factor Evaluation

System (FES). The four factors are knowledge, job controls and complexity, contacts, and physical environment. The factors were validated against a wide variety of GS positions and proved to replicate current grade levels.

The job family guides cover the complete spectrum of white-collar work found in the Government. BLS has been using the guides in its ongoing surveys and 82 percent of the data this year are leveled under the new approach. Fully implementing the new leveling system will take one more year because of BLS' data collection cycle. **Appendix VI** of the 2002 Pay Agent's report contains the job family leveling guides.

### **Jobs above GS-15**

For the NCS program, it was necessary to develop generic instructions for identifying white-collar jobs in the random surveys that would be graded above GS-15 (above the highest grade in the General Schedule) if they existed in the Federal Government so that the data could be excluded from pay gap measurements. BLS developed and tested the guidance with assistance from OPM. **Appendix V** of the 2002 Pay Agent's report explains the process for identifying these jobs in the NCS program.

### **Grading Supervisory Positions**

Grading supervisory jobs presented another problem for the NCS program because the Government does not use the FES approach to grade supervisory jobs. OPM occupational classification specialists suggested an approach for most supervisory jobs based on the highest level of work supervised. Under this approach, BLS grades the highest level of work supervised using the appropriate four-factor leveling guide, not the supervisory job itself, and then adds one grade for a first-level supervisor, two grades for a second-level supervisor, and three grades for a third-level supervisor.

### **Missing Data**

While BLS surveys all white-collar jobs under the NCS program, it does not find all jobs at all work levels in each survey area. This is a serious problem with the NCS program because survey results and pay disparity measures can vary considerably based on which jobs are included. The Pay Agent asked BLS to develop an econometric model to provide estimates for jobs not found in NCS. The model is described later in this report and in **Appendices II and III**.

### **Establishment Size**

In previous years, BLS had delivered data for both establishments with 50 or more workers (large establishments) and all establishments, i.e. including establishments with as few as one employee (small establishments). Establishments with no employees (single entrepreneur owners) are not covered by the surveys. In the past, we had used data only from large establishments in the locality pay program. Beginning in 2008, we use data from all establishments for the locality pay program.



## **Incentive Pay**

In 2008 and 2009, extremely high incentive pay in the RUS locality pay area caused incentive pay to become an issue of concern to us. In 2009, 11 separate locality pay areas would have had pay gaps below that for the RUS area due to these high rates of pay. The Council recommended that we use the data as delivered by BLS, including the high incentive pay. We respectfully disagreed and excluded the affected data from the pay gap calculations we presented to the President.

This year, incentive pay is not causing a large spike in the RUS data but is substantially affecting the survey results for determining the locality rate in the Miami area. The Council has recommended the data be used as delivered by BLS. As in 2008 and 2009, we have excluded the affected data point from our calculations. The President will have the benefit of the Council's recommendations, which are shown in **Appendix I**, and include the incentive pay data as delivered by BLS. But, as in 2008 and 2009, it is our recommendation to the President that the affected data for this year's Miami survey not be used in the pay comparisons.

## **An Alternative Approach to Measuring Non-Federal Pay**

In 2008, the Federal Salary Council asked BLS staff to explore the use of additional sources of pay data so that the Council could better evaluate the need for establishing additional pay localities, especially in areas where the NCS program could not provide estimates of non-Federal pay. In response, a team of BLS research economists organized to investigate the use of data from the Occupational Employment Statistics (OES) program in conjunction with NCS data. After careful investigation, the team recommended a regression method combining NCS and OES data as the best approach to producing the non-Federal pay estimates required to compute area pay gaps with OES data.

## **OES Survey Methodology**

The Occupational Employment Statistics (OES) survey measures occupational employment and wage rates of wage and salary workers in nonfarm establishments in the 50 States and the District of Columbia. Guam, Puerto Rico, and the Virgin Islands are also surveyed.

About 6.8 million in-scope establishments are stratified within their respective States by substate area and industry. Substate areas include all officially defined metropolitan statistical areas (MSA) and, for each State, one or more residual balance-of-State areas. The North American Industry Classification System (NAICS) is used to stratify establishments by industry.

BLS selects semiannual probability samples—referred to as panels—of about 200,000 business establishments, and pools those samples across three years (6 panels) for a total sample of 1.2 million business establishments, in order to have sufficient sample sizes to produce estimates for small population groups. Responses are obtained through mail, telephone contact, and e-mail or other electronic means. Most respondents report their number of employees by occupation

across 12 wage bands. There are about 100 different survey forms—each used for a different set of industries—as well as a write-in form sent to the smallest establishments. The Standard Occupational Classification (SOC) system is used to define occupations.

Estimates of occupational employment and occupational wage rates are based on a rolling six-panel (or 3-year) cycle. The final in-scope post-collection sample size when six panels are combined is approximately 1.1 million establishments.

### **Benefits of Incorporating OES Data**

Before proceeding to a discussion of the recommended method, it is useful to enumerate why incorporating OES data into the process of producing wage estimates for the President’s Pay Agent may provide important benefits.

In order to calculate estimates of pay gaps, the Pay Agent asks BLS to calculate wage estimates by area, occupation, and grade. When data for an area-occupation-grade combination are missing, as is often the case, a model is used to fill in the missing data. This model must estimate, with NCS data alone, how wages vary by roughly 30 areas, well over 200 occupations, and for 15 grade levels. If one first obtains area-occupation mean wages from the OES data, one then needs the model primarily to estimate how wages vary by grade, which is an easier task.

Two additional advantages come about because the OES sample is much larger than the NCS sample. One would expect, overall, that the estimates of mean wages by occupation and area would be more precise in the OES than in the NCS. Also, because of the larger OES sample size, one can relax the strong assumption of the current model that, regardless of occupation, an area will always be high wage and another area will always be low wage.

Moreover, because the OES samples establishments in all metropolitan areas of the country, one can generate Federal pay gaps for all metropolitan areas by extrapolating the relationship between grade and wages from the NCS to areas not sampled in the NCS. Of course, this requires that one is comfortable with the assumption that the estimated grade effects do not vary across areas. If there is sufficient confidence in the robustness of these estimates, the incorporation of the OES increases the number of localities for which estimates can be provided.

### **Regression Method**

This section provides a non-technical description of the model. **Appendix VI**, a report completed by the BLS research team, provides technical details.

In order to calculate estimates of pay gaps, the Pay Agent asks BLS to calculate annual wage estimates by area, occupation, and grade level. These estimates are then weighted by national Federal employment to arrive at wage estimates by broad occupation group and grade for each pay area. There are five broad occupational groups – Professional, Administrative, Technical, Clerical, and Officer -- known as PATCO.

The OES can provide wage estimates by occupation for each area, but does not have information by grade level. The NCS has information on grade level, but, as noted, a much smaller sample with which to calculate occupation-area estimates. To combine the information from the two samples, a regression model is used. The model assumes that the difference between a wage observed in the NCS for a given area, occupation, and grade level, and the corresponding area-occupation wage from the OES, can be explained by a few key variables, the most important of which is the grade level itself. The model then predicts the extent to which wages will be higher, on average, for higher grade levels. The model assumes that the relationship between wages and levels is the same throughout the nation. While this assumption is not likely to hold exactly, the NCS sample size is not large enough to allow the effect of grade level on salary to vary by area.

Once estimated, the model can be used to predict the hourly wage rate for area-occupation-grade cells of interest to the Pay Agent. This predicted hourly wage rate is then multiplied by 2,080 hours (52 weeks X 40 hours per week) to arrive at an estimate of the annual earnings for that particular cell. The estimates from the model are then averaged, using Federal employment levels as weights, to form an estimate of annual earnings for PATCO job family and grade for each area.

## COMPARING GENERAL SCHEDULE AND NON-FEDERAL PAY

### How Local Pay Disparities Are Measured

Locality-based comparability payments are a function of local disparities between Federal and non-Federal pay. Pay disparities are measured for each locality pay area by comparing the base GS pay rates of workers paid under the General Schedule pay plan in an area to the annual rates generally paid to non-Federal workers for the same levels of work in the same area. Under the NCS program, BLS surveys or models salaries for all non-Federal jobs deemed to match GS positions, as shown in the crosswalk in **Appendix VII** to the 2002 Pay Agent's report. BLS can also produce equivalent estimates using its new model and OES data.

Non-Federal rates are estimated on a sample basis by BLS area surveys. The rate for each non-Federal job is an estimate of the mean straight-time earnings of full-time non-Federal workers in the job, based on the BLS survey sample. GS rates are determined from Federal personnel records for the relevant populations of GS workers. Each GS rate is the mean scheduled annual rate of pay of all full-time, permanent, year-round GS workers in the relevant group.

The reference dates of the BLS surveys vary over the cycle of non-Federal salary surveys conducted for the GS locality pay program. To ensure that local pay disparities are measured as of one common date, it is necessary to “age” the BLS survey data to a common reference date before comparing it to GS pay data of the same date. March 2010 is the common reference and comparison date used in this report. The Employment Cost Index (ECI) based on wages and salaries for civilian workers was used to age the BLS NCS data.<sup>1</sup> BLS aged data for the OES model prior to sending it to OPM.

Because 5 U.S.C. 5302(6) requires that each local pay disparity be expressed as a single percentage, the comparison of GS and non-Federal rates of pay in a locality requires that the two sets of rates be reduced to one pair of rates, a GS average and a non-Federal average. An important principle in averaging each set of rates is that the rates of individual survey jobs and job categories are weighted by Federal GS employment in equivalent classifications. Weighting by Federal employment ensures that the influence of each non-Federal survey job on the overall non-Federal average is proportionate to the frequency of that job in the Federal sector.

We use a three-stage weighted average in the pay disparity calculations. In the first stage, job rates (based on survey results or modeled data) are averaged within PATCO<sup>2</sup> category by grade level. Both the NCS and OES programs cover virtually all GS jobs since only jobs that were not randomly selected in any BLS survey area cannot be modeled. For averaging within PATCO

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<sup>1</sup> NCS surveys used in this report had reference dates between December 2008 and February 2010, except for the Anchorage survey with a reference date of December 2005. See **Appendix IV**.

<sup>2</sup> “PATCO” categories are 5 broad classes of occupations—professional (P), administrative (A), technical (T), clerical (C), and officer (O).

category, each job rate is weighted by the full-time permanent year-round employment<sup>3</sup> in GS positions that match the job. The reason for national weighting in the first stage is explained below.

When the first stage averages are complete, each grade is represented by up to five PATCO category rates in lieu of its original job rates. Under the NCS or OES program, all PATCO/grade categories with Federal incumbents are represented, except for any where BLS had no data at all and could not model results.

In the second stage, the PATCO category rates are averaged by grade level to one grade level rate for each grade represented. Thus, at grade 5, which has Federal jobs in all five PATCO categories, the five PATCO category rates are averaged to one GS-5 rate. For averaging by grade, each PATCO category rate is weighted by the local full-time permanent year-round GS employment in the category at the grade.

In the third stage, the grade averages are weighted by the corresponding local full-time permanent year-round GS grade level employment and averaged to a single overall non-Federal rate for the locality. This overall non-Federal average salary is the non-Federal rate to which the overall average GS rate is compared. Under the NCS or OES programs, all 15 GS grades can be represented.

Since GS rates by grade are not based on a sample, but rather on a census of the relevant GS populations, the first two stages of the above process are omitted in deriving the GS average rate. For each grade level represented by a non-Federal average derived in stage two, we average the scheduled rates of all full-time permanent year-round GS employees at the grade in the area. The overall GS average rate is the weighted average of these GS grade level rates, using the same weights as those used to average the non-Federal grade level rates.

The pay disparity, finally, is the percentage by which the overall average non-Federal rate exceeds the overall average GS rate.<sup>4</sup> See **Appendix V** for more detail on pay gaps using NCS data and **Appendices VII and VIII** using the OES model.

As indicated above, at the first stage of averaging the non-Federal data, the weights represent national GS employment, while local GS employment is used to weight the second and third stage averages. GS employment weights are meant to ensure that the effect of each non-Federal pay rate on the overall non-Federal average reflects the relative frequency of Federal employment in matching Federal job classifications.

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<sup>3</sup> Employment weights include employees in the 48 contiguous States, the District of Columbia, Alaska, Hawaii, and U.S. territories and possessions.

<sup>4</sup> An equivalent procedure for computing the pay disparity compares aggregate pay rather than average pay, where aggregate pay is defined as the sum across grades of the grade level rate times the GS employment by grade level. In fact, the law defines a pay disparity in terms of a comparison of pay aggregates rather than pay averages (5 U.S.C. 5302(6)). Algebraically, however, the percentage difference between sector aggregates (as defined) is exactly the same as the percentage difference between sector averages.

The methodology employed by the Pay Agent to measure local pay disparities does not use local weights in the first (job level) stage of averaging because this would have an undesirable effect. A survey job whose Federal counterpart has no local GS incumbents will “drop out” in stage one and have no effect on the overall average. For this reason, national weights are used in the first stage of averaging data. National weights are used only where retention of each survey observation is most important—at the job level or stage one. Local weights are used at all other stages.<sup>5</sup>

### **Publishability and Substitute Data**

Since the beginning of the locality pay program in 1994, BLS was never able to publish data for all survey jobs in every survey area. The fact that the set of available jobs varies from area to area was a concern because the disparity between Federal and non-Federal pay varies by job as well as by area. If area pay disparities are not based on the same set of jobs in each area, the differences between those disparities are caused not only by differences in the pay of Federal and non-Federal workers for the same jobs (as intended), but also by differences in the set of jobs for which pay data are available.

Since 1995, the Council and the Pay Agent have used estimates of non-Federal pay produced by a multiple regression model to estimate salaries for jobs not available in individual BLS surveys. OPM staff developed the original model to estimate local non-Federal pay rates for the survey jobs with Occupational Compensation Survey Program (OCSP) data. The OCSP model produced estimates of the pay of unpublished jobs based on multiple regression analysis of the pay of published jobs. The model assumed that pay varies with three factors—geographic area, occupation, and work level. A technical report on the original OPM model was provided in **Appendix II** to the 1994 Report, and a summary of subsequent years’ models appeared in **Appendices II or III** of later reports.

BLS staff developed and implemented a similar model using NCS data to produce pay estimates for missing non-Federal jobs in NCS. Both the NCS and the OCSP models predict pay as a function of location, occupation, and grade level.<sup>6</sup> The NCS model accounts for about 83 percent of the variations in pay, which is very good for models of this type. BLS also developed a model for use of OES data in locality pay. The OES model is described in **Appendix VI**.

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<sup>5</sup> For the introduction of NCS data in 2002, we left the weighting system essentially unchanged, although the first stage is now done by BLS to permit use of all job data, both published and unpublished. Under the NCS program, PATCO and grade weights may not be necessary, since all white-collar jobs at all grades are represented and weighted by national GS employment separately. However, the Pay Agent concluded that continued use of PATCO and grade weighting is desirable to add the local Federal employment distribution to the calculations and to permit BLS to deliver data by PATCO category/grade so that published and unpublished NCS data can be combined before delivery to the Pay Agent.

<sup>6</sup> The models use a transformed grade level variable, where grades 12 through 15 are treated as 13, 15, 17, and 19 for modeling purposes. This transformation was developed in the 1970s as part of the curve-fitting process used in the pre-FEPCA methodology to reflect the two-grade interval aspect of the GS position classification system.

Use of modeling is a generally accepted practice, and we have used modeled data for most of the history of the locality pay program. The models used in both the original OCSP surveys and the NCS program are similar in concept and form. They are also similar to the curve-fitting process used in the pay comparability system prior to FEPCA. All jobs included on the crosswalk shown in **Appendix VII** to the 2002 Pay Agent's report were included in developing the NCS and OES models, with the exception of a handful of jobs for which BLS had no data.

While the use of modeled data is a standard technique, the Federal Salary Council noted that there is a relatively large amount of data modeled under the NCS program. Based on GS employment weights used to combine the data at the job level, an average of about 74 percent of the NCS data are modeled in this year's surveys. This varies by area from a high of 89 percent modeled in Buffalo to a low of 34 percent modeled in the Rest of U.S. locality pay area. The amount of modeled data also varies considerably by grade level and ranges from an average of 38 percent modeled at GS-4 to an average of 98 percent modeled at GS-15. All data used in the pay comparisons under OES are modeled. BLS research concluded that the new method produces pay gap estimates that are comparable to the existing method.

### **Data for Locality Pay in 2012**

The Federal Salary Council recommended that we use NCS data again this year. **Appendix VIII** shows pay gaps for several years under both OES and NCS. While the overall averages are similar, there are substantial differences among areas that the Council should explore. We agree with the Council that NCS data should be used this year for locality pay in 2012. Continuing to use the NCS data for an additional year is consistent with our position that it is not appropriate to make substantive changes in the General Schedule locality pay system at this time.

## LOCALITY PAY AREAS

Under 5 U.S.C. 5304(e)(2)(A), the Federal Salary Council made a recommendation to the Pay Agent on the composition of locality pay areas for 2012. This recommendation was transmitted to the Pay Agent in a memorandum dated December 3, 2010. (See **Appendix I.**)

### Evaluating Additional Areas

The Council reviewed pay gaps for Charlotte, Louisville, and New Orleans this year. These data are from surveys BLS originally conducted as part of its data collection for the RUS locality pay area.

**Table 1.**  
**National Compensation Survey Pay Gaps in Three Areas**

<b>Area</b>	<b>2010 Pay Gap (Percent)</b>	<b>Percentage Points Above RUS</b>
Charlotte, NC	46.04	15.09
Louisville, KY	33.00	2.05
New Orleans, LA	38.80	7.85
Rest of U.S.	30.95	

The Council also reviewed OES data for these locations. Both Louisville and New Orleans were below RUS using OES data and the Council concluded only Charlotte should be made a separate locality pay area in 2012.

The Council also reviewed OES model data for Albany, NY; Albuquerque, NM; Bakersfield, CA; Beaumont, TX; Harrisburg, PA; Lansing, MI; Portland, ME; and Wilmington, NC. Based on the model results, the Council recommended Albany, Albuquerque, Bakersfield, Harrisburg, and Portland be made separate locality pay areas in 2012.

The Council received requests from Federal employees in 24 areas for changes in locality pay area boundaries or new locality pay areas. The Council also heard testimony from employees from several of these areas at its public meetings of October 29, 2010, and November 19, 2010. None of these locations meet the current criteria for inclusion in an adjacent locality pay area or can be surveyed by BLS under NCS as separate locality pay areas.

The Council also reviewed its criteria for evaluating adjacent areas to be included in an existing locality pay area and recommend the GS employment criterion be dropped and the commuting criterion be raised from 7.5 percent to 20 percent for evaluating adjacent single counties. These changes would add 15 metropolitan areas and 85 counties containing about 10,000 GS employees to existing locality pay areas.

The Council's recommendations are in **Appendix I.**



## **Pay Agent Views on Council Recommendations on Locality Pay Areas**

While we appreciate the Council's work, the Pay Agent has decided it will not make any changes in locality pay area boundaries or add any additional pay areas at this time. We do not believe it is appropriate to make substantive changes in the General Schedule locality pay system now given the anticipated migration to the use of a new survey methodology (incorporating the Occupational Employment Statistics program), the continuing economic emergency affecting the general welfare, and the recently enacted legislation freezing Federal pay in 2011 and 2012. While this decision is in keeping with the freeze legislation, it also affords more time for the Council to consider how geographic areas should be selected for evaluation using the OES model, differences in results between NCS and OES, and what criteria would be best for defining the boundaries of locality pay areas. If desired, the Council can resubmit its proposal next year when locality pay areas for 2013 are addressed.

### **Locality Pay Areas for 2011**

The Pay Agent intends to provide for the same locality pay areas in 2012 as in 2011.

- (1) Alaska—consisting of the State of Alaska;
- (2) Atlanta-Sandy Springs-Gainesville, GA-AL—consisting of the Atlanta-Sandy Springs-Gainesville, GA-AL CSA;
- (3) Boston-Worcester-Manchester, MA-NH-RI-ME—consisting of the Boston-Worcester-Manchester, MA-RI-NH CSA, plus Barnstable County, MA, and Berwick, Eliot, Kittery, South Berwick, and York towns in York County, ME;
- (4) Buffalo-Niagara-Cattaraugus, NY—consisting of the Buffalo-Niagara-Cattaraugus, NY CSA;
- (5) Chicago-Naperville-Michigan City, IL-IN-WI—consisting of the Chicago-Naperville-Michigan City, IL-IN-WI CSA;
- (6) Cincinnati-Middletown-Wilmington, OH-KY-IN—consisting of the Cincinnati-Middletown-Wilmington, OH-KY-IN CSA;
- (7) Cleveland-Akron-Elyria, OH—consisting of the Cleveland-Akron-Elyria, OH CSA;
- (8) Columbus-Marion-Chillicothe, OH—consisting of the Columbus-Marion-Chillicothe, OH CSA;
- (9) Dallas-Fort Worth, TX—consisting of the Dallas-Fort Worth, TX CSA;
- (10) Dayton-Springfield-Greenville, OH—consisting of the Dayton-Springfield-Greenville, OH CSA;
- (11) Denver-Aurora-Boulder, CO—consisting of the Denver-Aurora-Boulder, CO CSA, plus the Ft. Collins-Loveland, CO MSA;
- (12) Detroit-Warren-Flint, MI—consisting of the Detroit-Warren-Flint, MI CSA, plus Lenawee County, MI;
- (13) Hartford-West Hartford-Willimantic, CT-MA—consisting of the Hartford-West Hartford-Willimantic, CT CSA, plus the Springfield, MA MSA and New London County, CT;
- (14) Hawaii—consisting of the State of Hawaii;
- (15) Houston-Baytown-Huntsville, TX—consisting of the Houston-Baytown-Huntsville, TX CSA;

- (16) Huntsville-Decatur, AL—consisting of the Huntsville-Decatur, AL CSA;
- (17) Indianapolis-Anderson-Columbus, IN—consisting of the Indianapolis-Anderson-Columbus, IN CSA, plus Grant County, IN;
- (18) Los Angeles-Long Beach-Riverside, CA—consisting of the Los Angeles-Long Beach-Riverside, CA CSA, plus the Santa Barbara-Santa Maria-Goleta, CA MSA and all of Edwards Air Force Base, CA;
- (19) Miami-Fort Lauderdale-Pompano Beach, FL—consisting of the Miami-Fort Lauderdale-Pompano Beach, FL MSA, plus Monroe County, FL;
- (20) Milwaukee-Racine-Waukesha, WI—consisting of the Milwaukee-Racine-Waukesha, WI CSA;
- (21) Minneapolis-St. Paul-St. Cloud, MN-WI—consisting of the Minneapolis-St. Paul-St. Cloud, MN-WI CSA;
- (22) New York-Newark-Bridgeport, NY-NJ-CT-PA—consisting of the New York-Newark-Bridgeport, NY-NJ-CT-PA CSA, plus Monroe County, PA, Warren County, NJ, and all of Joint Base McGuire-Dix-Lakehurst;
- (23) Philadelphia-Camden-Vineland, PA-NJ-DE-MD—consisting of the Philadelphia-Camden-Vineland, PA-NJ-DE-MD CSA excluding Joint Base McGuire-Dix-Lakehurst, plus Kent County, DE, Atlantic County, NJ, and Cape May County, NJ;
- (24) Phoenix-Mesa-Scottsdale, AZ—consisting of the Phoenix-Mesa-Scottsdale, AZ MSA;
- (25) Pittsburgh-New Castle, PA—consisting of the Pittsburgh-New Castle, PA CSA;
- (26) Portland-Vancouver-Hillsboro, OR-WA—consisting of the Portland-Vancouver-Hillsboro, OR-WA MSA, plus Marion County, OR, and Polk County, OR;
- (27) Raleigh-Durham-Cary, NC—consisting of the Raleigh-Durham-Cary, NC CSA, plus the Fayetteville, NC MSA, the Goldsboro, NC MSA, and the Federal Correctional Complex Butner, NC;
- (28) Richmond, VA—consisting of the Richmond, VA MSA;
- (29) Sacramento—Arden-Arcade—Yuba City, CA-NV—consisting of the Sacramento—Arden-Arcade—Yuba City, CA-NV CSA, plus Carson City, NV;
- (30) San Diego-Carlsbad-San Marcos, CA—consisting of the San Diego-Carlsbad-San Marcos, CA MSA;
- (31) San Jose-San Francisco-Oakland, CA—consisting of the San Jose-San Francisco-Oakland, CA CSA, plus the Salinas, CA MSA and San Joaquin County, CA;
- (32) Seattle-Tacoma-Olympia, WA—consisting of the Seattle-Tacoma-Olympia, WA CSA, plus Whatcom County, WA;
- (33) Washington-Baltimore-Northern Virginia, DC-MD-VA-WV-PA—consisting of the Washington-Baltimore-Northern Virginia, DC-MD-VA-WV CSA, plus the Hagerstown-Martinsburg, MD-WV MSA, the York-Hanover-Gettysburg, PA CSA, and King George County, VA; and
- (34) Rest of U.S.—consisting of those portions of the United States and its territories and possessions as listed in 5 CFR 591.205 not located within another locality pay area.

Component counties of MSAs and CSAs are identified in OMB Bulletins available on the Internet at <http://www.whitehouse.gov/omb/bulletins/index.html>.

## **PAY DISPARITIES AND COMPARABILITY PAYMENTS**

Table 2, below, lists the pay disparity based on NCS data for each pay locality. Table 2 also derives the recommended local comparability payments under 5 U.S.C. 5304(a)(3)(I) for 2012 based on the pay disparities, and it shows the disparities that would remain if the recommended payments were adopted. We note that under recent legislation imposing a freeze on Federal pay increases in 2012 these rates cannot be adopted.

The law requires comparability payments only in localities where the pay disparity exceeds 5 percent; the goal was to reduce local pay disparities to no more than 5 percent over a 9-year period (5 U.S.C. 5304(a)(3)(I)). The “Disparity to Close” shown in Table 2 represents the pay disparity to be closed in each area based on the 5 percent remaining disparity threshold. The “Locality Payment” shown in the table represents 100 percent of the disparity to close. The last column shows the pay disparity that would remain in each area if the indicated payments were made. For example, in Atlanta, the 46.13 percent pay disparity would be reduced to 5.00 percent if the locality rate were increased to 39.17 percent ( $(146.13/139.17-1) \times 100 = 5.00$  percent).

**Table 2.**  
**Local Pay Disparities and 2012 Comparability Payments**

<b>Locality</b>	<b>1-Pay Disparity (percent)</b>	<b>2-Disparity to Close and Locality Payment (percent)</b>	<b>3-Remaining Disparity (percent)</b>
Alaska	55.39	47.99	5.00
Atlanta	46.13	39.17	5.00
Boston	56.51	49.06	5.00
Buffalo	36.66	30.15	5.00
Chicago	55.67	48.26	5.00
Cincinnati	39.58	32.93	5.00
Cleveland	41.79	35.04	5.00
Columbus	40.77	34.07	5.00
Dallas	49.14	42.04	5.00
Dayton	35.93	29.46	5.00
Denver	49.94	42.80	5.00
Detroit	46.92	39.92	5.00
Hartford	61.56	53.87	5.00
Hawaii	39.34	32.70	5.00
Houston	50.62	43.45	5.00
Huntsville	45.65	38.71	5.00
Indianapolis	35.64	29.18	5.00
Los Angeles	58.02	50.50	5.00
Miami	47.61	40.58	5.00
Milwaukee	38.72	32.11	5.00
Minneapolis	51.92	44.69	5.00
New York	65.62	57.73	5.00
Philadelphia	49.83	42.70	5.00
Phoenix	43.93	37.08	5.00
Pittsburgh	35.13	28.70	5.00
Portland	51.69	44.47	5.00
Raleigh	35.38	28.93	5.00
Richmond	34.98	28.55	5.00
Sacramento	54.55	47.19	5.00
San Diego	56.40	48.95	5.00
San Francisco	72.55	64.33	5.00
Seattle	52.85	45.57	5.00
Washington, DC	71.60	63.43	5.00
Rest of U.S.	30.95	24.71	5.00

### Average Locality Rate

The average locality comparability rate in 2012, using the basic GS payroll as of March 2010 to weight the individual rates, would be 41.79 percent under the methodology used for this report (based on the disparity to close). The average rate authorized in 2010 was 20.02 percent. The locality rates included in this report would represent an 18.14 percent average pay increase over 2010 locality rates. These calculations do not include Alaska, Hawaii, or the other nonforeign areas where locality pay is still being phased in.

### Overall Remaining Pay Disparities

The full pay disparities contained in this report average 48.88 percent using the basic GS payroll to weight the local pay disparities. However, this calculation excludes existing locality payments. When the existing locality payments (i.e., those paid in 2010) are included in the comparison, the overall remaining pay disparity as of March 2010 was  $(148.88/120.02-1) \times 100$ , or 24.05 percent. Table 3, below, shows the overall remaining pay disparity in each of the 32 continuing locality pay areas as of March 2010. This calculation does not include Alaska, Hawaii, or the other nonforeign areas where locality pay is still being phased in.

**Table 3.  
Remaining Pay Disparities in 2010**

<b>Locality Pay Area</b>	<b>Remaining Disparity</b>	<b>Locality Pay Area</b>	<b>Remaining Disparity</b>
Atlanta	22.50%	Milwaukee	17.46%
Boston	25.41%	Minneapolis	25.60%
Buffalo	16.82%	New York	28.67%
Chicago	24.44%	Philadelphia	23.02%
Cincinnati	17.74%	Phoenix	23.27%
Cleveland	19.47%	Pittsburgh	16.12%
Columbus	20.15%	Portland	26.04%
Dallas	23.59%	Raleigh	15.08%
Dayton	16.94%	Richmond	15.89%
Denver	22.38%	Sacramento	26.47%
Detroit	18.40%	San Diego	25.94%
Hartford	28.41%	San Francisco	27.67%
Houston	17.02%	Seattle	25.48%
Huntsville	25.54%	Washington, DC	38.14%
Indianapolis	18.28%	Rest of U.S.	14.71%
Los Angeles	24.27%		
Miami	22.20%	Average	24.05%

## **COST OF LOCALITY PAYMENTS**

### **Estimated Cost of Locality Payments**

The cost of locality payments is estimated using OPM records of Federal employees in locality pay areas as of March 2010 who are covered by the General Schedule or other pay plan to which locality pay has been extended, together with the percentage locality payments from Table 2. The estimate assumes that the average number and distribution of employees (by locality, grade, and step) in 2012 will not differ substantially from the number and distribution in March 2010. The estimate does not include increases in premium pay costs or Government contributions for retirement, life insurance, or other employee benefits that may be attributed to locality payments. It also excludes the nonforeign areas where cost-of-living allowance payments are reduced as locality pay is phased in.

Cost estimates are derived as follows. First, either the regular GS base rate or any applicable special rate as of 2010 is determined for each employee. These rates were not adjusted for 2011 and 2012 pay increases because those increases were canceled by legislation. Annual rates are converted to expected annual earnings by multiplying each by an appropriate work schedule factor.<sup>7</sup> The “gross locality payment” is computed by multiplying expected annual earnings from the GS base rate by the proposed locality payment percentage for the employee’s locality pay area. The sum of these gross locality payments is the cost of locality pay before offset by special rates.

For employees receiving a special rate, the gross locality payment is compared to the amount the special rate exceeds the regular rate. This amount is the “cost” of any special rate. If the gross locality payment is less than or equal to the cost of any special rate, the net locality payment is set at zero. In this case, the locality payment is completely offset by an existing special rate. If the gross locality payment is greater than the cost of any special rate, the net locality payment is equal to the gross locality payment minus the special rate. In this case, the locality payment is partially offset. The sum of the net locality payments is the estimated cost of local comparability payments.

### **Estimated Cost of Locality Payments in 2012**

Table 4, below, compares the cost of the projected 2012 locality rates to 2010 rates that will still be in effect in 2011 under the pay freeze. The “2011 Baseline” cost would be the cost of locality pay in 2012 if the 2010 locality rates are not increased.

The “2012 Locality Pay” columns show what the total locality payments would be and the net increase in 2012. The “2012 Increase” column shows the 2012 total payment minus the 2011 baseline—i.e., the increase in locality payments in 2012 attributable to higher locality pay rates. Based on the assumptions outlined above, we estimate the total cost attributable to the locality

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<sup>7</sup> The work schedule factor equals 1 for full-time employees and one of several values less than 1 for the several categories of non-full-time employees.

rates shown in Table 2 to be about \$13.6 billion on an annual basis. This amount does not include the cost of benefits affected by locality pay raises.

This cost estimate excludes 938 records (out of 1.3 million) of white-collar workers which were unusable because of errors. Many of these employees may receive locality payments. Including these records would add about \$10 million to the net cost of locality payments. The cost estimate also excludes a cost of about \$314 million for white-collar employees in Alaska, Hawaii, and the other nonforeign areas under the Non-Foreign Area Retirement Equity Assurance Act of 2009 that extended locality pay to employees in the nonforeign areas.

The cost estimate covers only General Schedule employees and employees covered by pay plans that receive locality pay by action of the Pay Agent. However, the cost estimate excludes members of the Foreign Service because the Department of State no longer reports these employees to OPM. The estimate also excludes the cost of pay raises for employees under other pay systems that may be linked in some fashion to locality pay increases. These other pay systems include the Federal Wage System for blue-collar workers, under which pay raises often are capped or otherwise affected by increases in locality rates for white-collar workers; pay raises for employees of the Federal Aviation Administration, and other agencies that have independent authority to set pay; and pay raises for employees covered by various demonstration projects. The cost estimate also excludes the cost of benefits affected by pay raises.

**Table 4.**  
**Cost of Local Comparability Payments in 2012 (in millions of dollars)**

Cost Component	2011 Baseline	2012 Locality Pay	
		Total Payments	2012 Increase
Gross locality payments	\$14,239	\$28,101	\$13,862
Special rates offsets	\$574	\$867	\$293
Net locality payments	\$13,665	\$27,234	\$13,569

## **RECOMMENDATIONS OF THE FEDERAL SALARY COUNCIL AND EMPLOYEE ORGANIZATIONS**

The Federal Salary Council's deliberations and recommendations have had an important and constructive influence on the findings and recommendations of the Pay Agent. The Council's recommendations appear in **Appendix I**. The members of the Federal Salary Council are:

Stephen E. Condrey, Ph.D.	Chairman, University of Georgia
Rex L. Facer II, Ph.D.	Brigham Young University
Louis Cannon	Fraternal Order of Police
J. David Cox	National Secretary-Treasurer American Federation of Government Employees
Colleen M. Kelley	National President, National Treasury Employees Union
William Fenaughty	National Secretary-Treasurer National Federation of Federal Employees
Jacqueline Simon	Public Policy Director, American Federation of Government Employees

The Council's recommendations were provided to a selection of organizations not represented on the Council. These organizations were asked to send comments for inclusion in this report. Comments received appear in **Appendix IX**.