Despite large separate literatures, the influence of establishment (plant) and firm size on wages has not been combined with estimation of public wage differentials. We find that doing so alters the estimated public differentials at each level of government. Federal workers in particular appear far less “overpaid” when establishment size premiums are included in the wage equations. Indeed, the usually reported federal differential is driven mainly by large wage gaps in the very smallest of establishments. Moreover, when both establishment and firm size premiums are included in the wage equations, little or no evidence emerges that even federal workers are “overpaid.” These results follow from the existence of size premiums among private and local workers but virtually no such premiums among federal or state workers.

THE EFFECT OF ESTABLISHMENT AND FIRM SIZE ON PUBLIC WAGE DIFFERENTIALS

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University of Wisconsin — Milwaukee

This research blends two lines of empirical investigation to determine the influence of establishment (plant) and firm size on public wage differentials. Previous estimates of those differentials do not control for the tendency of larger private sector establishments and firms to pay higher wages. If public employees do not receive similar wage premia, or if the distribution of establishment size differs between the two sectors, previous estimates of the public differential will be biased. As Mitchell (1988) suggests, public wage differentials need to standardize for the size of the workplace.

We find that excluding establishment size generates large positive federal differentials, small or insignificant state differentials, and moderately sized negative local differentials. Including establishment size changes the public differentials at each level of government. The federal differential drops as much as one-half. The state differential for men becomes significantly negative and the local differential
remains negative but loses some of its size, suggesting far less under-payment.

These changes flow from the different compensation effects of establishment size in the four different sectors: private and the three public. While private and local employees receive substantial returns from establishment size, federal and state employees receive no returns from establishment size. As a consequence, the usually reported federal differential masks the fact that no differential exist when workers in large and medium establishments are compared. The usually reported federal differential is generated by the very large wage gaps in the smallest establishments. Thus, it may be fair to conclude the federal government compensates employees like typical medium or large private sector establishments.

Introducing firm size causes federal wage differentials to shrink even further. Recent researchers (Evans and Leighton, 1989) have presented evidence concluding that the premiums associated with large private sector firms are the result of the higher but unmeasured quality of these firms' workers. To the extent that the federal government must compete in the same labor market as these large firms, it may be forced to pay the same premiums. Accounting for this possibility results in federal wages that are insignificantly different from those in the private sector. Such a finding does not, however, indicate that total federal compensation is the same as that in the private sector. It remains possible that fringe benefits in the federal sector are more generous, a possibility our data do not allow us to address.

THE ROLE OF ESTABLISHMENT SIZE

One near constant in the estimation of wage equations has been the robust effect of establishment size. In their review of 14 major studies, Dickens and Katz (1987) find that each study reports positive and significant increases in wages associated with larger establishment size. This effect is typically substantial, with workers in large plants often earning 20% to 30% more than their counterparts in small plants. The only reported exception to this pattern was a study that reported positive effects for nonunion workers only. This uniformity emerges
despite differences in estimation technique, specification, data sets, and the 20-year time span covered by the studies. While the magnitude and exact pattern of the size effect continues to be debated, its existence seems undeniable.

The underlying source of the plant size effect is neither obvious nor fully explored. Researchers most often present three possible causes. First, the persistent size effect may reflect our inability to fully control for worker qualifications. Large establishments may require better qualified workers and must pay them more. Second, large establishments may have to pay more to compensate for unpleasant working conditions associated with size. These could include greater supervision, stricter hierarchy, or a greater sense of lost control. Third, large establishments may be associated with monopoly power. The argument seems to be that larger establishments have monopoly rents that workers are able to partially capture. In this article, we largely ignore these rationales except to make some brief observations that follow from our results. We are content, instead, to recognize the persistence and large magnitude of the size effect, and to incorporate it into our estimates.

The estimation of public wage differentials proceeded concurrently with the examination of size effects. Researchers estimate separate differentials for men, women, and minorities, for different regions of the country, for different levels of government and for municipalities of different sizes. The conclusions have received wide acceptance: Women have larger public wage differentials than men; the higher the level of government, the greater is the differential; and differentials are larger in the South and for larger cities. These conclusions typically serve as an agreed upon base for government compensation discussions in most texts. Indeed, the notion of a large positive federal wage differential has gained such wide currency that it routinely enters policy discussions on the proper level of federal pay (see Culler, 1989).

Despite the variety of specific conclusions, previous estimates of the public differential exclude establishment size. This may cause serious bias. If size is rewarded in the private sector but not the public, previous differentials may appear artificially high. This could result because public workers are typically in large establishments. Thus, when compared with all private sector workers, who are in smaller
establishments, they appear greatly overcompensated. Yet, when com-
pared with private sector workers in comparable establishments, they
may be less over compensated or not overcompensated at all.

Given the uniformity and magnitude of the size effect, and the
possible role described above, it seems surprising that it has not been
routinely included in differential estimates. Three reasons for this may
exist. First, the most commonly used data sets have typically not
allowed the inclusion of the size effect. The Current Population Survey
(CPS) usually does not include data on establishment size for the
individual. As a consequence, those interested in size effects have
needed to match industry data on average establishment size. While
this is readily available for manufacturing, and to a lesser extent for
the private sector in general, it is not usually available for those in the
public sector. Further, even when such industry averages are available
for the public sector, they remain too aggregated. Nearly 40% of all
public workers are typically grouped in the single CPS industry
“public administration,” creating an errors-in-variables problem.³

Second, it may have been thought that reported establishment size
would show little variation among public workers, and among federal
workers in particular. In other words, all workers for a particular
government might report the size of that government’s work force.
Alternatively, establishment size for public employees may be consid-
ered less accurately reported because of uncertainty over whether the
establishment is the office, the agency, the department, or the govern-
ment itself. This might contrast with the more certain interpretation in
the private sector of establishment as the plant.

Third, size effects may have been ignored because the public
differential literature has stressed its human capital underpinnings.
Indeed, the hallmark of the recent empirical literature has been to
compare “people not positions.” In this context, the public differential
is viewed as the wage gap not explained by differences in productivity.
There may be no immediate reason to consider size effects related to
productivity and hence no reason to hold them constant in estimating
differentials.

Currently, each of these three reasons appears unpersuasive. The
1983 May CPS includes detailed data on establishment size for the
respondent. This obviously makes matching industry data unneces-
sary, thereby avoiding errors-in-variables problems that would other-
wise result. Further, the question in the 1983 survey carefully ties
establishment size to a physical location by asking, “How many people
work at your location?” It seems unlikely this question would intro-
duce greater response errors in the public sector than in the private.
Moreover, as Table 1 shows, substantial variance exists in establish-
ment size within all sectors. Nonetheless, public employment, and
particular federal employment, remains concentrated in larger estab-
lishments as anticipated. Finally, despite the success of human capital
variables, they leave much of the earnings variance unexplained.
Establishment size routinely correlates with earnings, suggesting,
“positions, as well as people” should be compared.

Indeed, Brown and Medoff (1988) have successfully estimated size
effects in a combined sample of state and local workers using the 1979
and 1983 CPS. They find substantial wage premiums for both estab-
lishment size and governmental unit size. In addition, they find these
premiums are not the result of differential abilities to pay between the
jurisdictions. This would seem to refute the public equivalent of the
monopoly power argument frequently presented as an explanation for
the private sector size effect.

Brown and Medoff do not, however, focus on the issues of this
study. They do not estimate public wage differentials. Further, they do
not include federal workers and they do not present separate state and
local estimates of the establishment size effect. As a consequence, the
public differentials that Mitchell (1988) suggests should standardize
for establishment size have not been estimated.

METHODOLOGY AND RESULTS

We proceed by first estimating public wage differentials without
including establishment size effects and then reestimating the differ-
entials including the size effects. In each case, we adopt the Oaxaca
decomposition, which requires separate wage equations for each of
the four sectors. The resulting predictive equations allow two esti-
mates of each differential, one based on the public sample and one
based on the private sample. The public base compares the mean
TABLE 1

The Composition of Each Sector by Establishment Size

<table>
<thead>
<tr>
<th>Employees</th>
<th>Private</th>
<th>Local</th>
<th>State</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-49</td>
<td>.398</td>
<td>.242</td>
<td>.220</td>
<td>.207</td>
</tr>
<tr>
<td>50-99</td>
<td>.226</td>
<td>.442</td>
<td>.195</td>
<td>.186</td>
</tr>
<tr>
<td>100-499</td>
<td>.209</td>
<td>.229</td>
<td>.232</td>
<td>.181</td>
</tr>
<tr>
<td>500-1,000</td>
<td>.062</td>
<td>.044</td>
<td>.097</td>
<td>.084</td>
</tr>
<tr>
<td>1,000 or more</td>
<td>.105</td>
<td>.043</td>
<td>.256</td>
<td>.342</td>
</tr>
<tr>
<td>Sample size</td>
<td>13066</td>
<td>1759</td>
<td>691</td>
<td>656</td>
</tr>
</tbody>
</table>

NOTE: Cells represent the fraction of the sector employment in the various size categories.

Public wage with the private sector wage estimate of a worker with mean public sector characteristics. The private base compares the public sector wage estimate of a worker with mean private sector characteristics with the mean private sector wage. Following Smith (1977), these computations are made separately for men and women.

In each estimation, we include as explanatory variables grades of completed education, years of experience, experience squared, occupational dummies, whether the respondent is married, a race dummy, whether the respondent is covered by collective bargaining, whether the respondent lives in an SMSA, a series of SMSA size dummies, regional dummies, whether the respondent works part-time, and a constant. Table 2 presents the estimated public differentials for the three levels of government and the two bases. Table 2 also presents an estimate derived from a single earnings equation that includes dummy variables for the three levels of government and all of the control variables described above. This estimate has the advantage of having readily associated standard errors. Such standard errors are not routinely available from the Oaxaca decomposition technique.

Federal workers receive approximately from 10% to 12% higher wages after holding constant the variables listed above. State workers receive roughly the same wages, while local workers have a 7% wage disadvantage. These results are roughly in line with previous work that demonstrates that the primary wage advantage exists at the federal level (see Smith, 1977). They may also chronicle a slight worsening in the position of state and local workers who, as of 1975, received positive differentials for females and little or no differential for males.
Next, we reestimate the earnings equations by adding four dummy variables that capture the differential wage premia for five size categories of establishment: 1-49, 50-99, 100-499, 500-999, and more than 1,000 employees. The right half of Table 2 presents the resulting public differentials. The federal differential for men losses more than a quarter of its size, while that for women loses nearly one-half of its size, a statistically significant decline.

The state differential for men becomes a larger negative percentage and becomes statistically significant in the single equation estimate. In contrast, the local differential becomes a smaller negative percentage, suggesting less underpayment than originally indicated. The complete equations, both with and without the size effects, are available from the authors.

This pattern results from the estimated size effects across the four sectors. Using the coefficients from the sectoral estimations, we present the percentage premium associated with each size category in each of the sectors. As Table 3 shows, private sector workers receive substantial differentials for working in larger establishments. Those

<table>
<thead>
<tr>
<th></th>
<th>Without Establishment Size</th>
<th>With Establishment Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Public</td>
</tr>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>19.9</td>
<td>10.1</td>
</tr>
<tr>
<td>Women</td>
<td>18.8</td>
<td>11.3</td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>-5.5</td>
<td>-1.7</td>
</tr>
<tr>
<td>Women</td>
<td>-0.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>-7.7</td>
<td>-7.9</td>
</tr>
<tr>
<td>Women</td>
<td>-3.7</td>
<td>-8.3</td>
</tr>
</tbody>
</table>

NOTE: The public and private estimates are derived from the Oaxaca decomposition and do not have easily associated standard errors. The single-equation estimates include dummies for the three levels of government, and the t statistics for those coefficients are presented in the parentheses.
who work in plants with more than 1,000 employees receive wages 32% to 34% higher than otherwise similar workers in establishments with fewer than 50 workers. The differential increases monotonically with establishment size and is highly significant at each size category. Smaller, but still significant, differentials emerge from the local sector. Local government workers in the largest category of establishments earn wages 16% to 19% higher than similar workers in the smallest category.6 State and federal workers receive no size premiums; the coefficients are not large and are never significant.

The result on state workers contrasts somewhat with that of Brown and Medoff (1988), who find substantial size effects for a combined sample of state and local workers. Our results suggest that such a combined sample may be inappropriate and that it may be the local sample that drives their result. Medoff and Brown do, however, have a larger sample, and presumably smaller standard errors, which result from combining two years of CPS data. Also, they estimate a slightly different specification by using a single size variable that takes the midpoint value of the size categories that are actually provided.

Federal and state workers remain concentrated in larger establishments but do not receive the premiums associated with these establishments that their private sector counterparts would. Thus, previous comparisons overestimate the true federal and state differentials by failing to hold establishment size constant. When held constant, state employees receive significantly lower wages than their private sector

### TABLE 3

<table>
<thead>
<tr>
<th>Size</th>
<th>Private Men</th>
<th>Private Women</th>
<th>Local Men</th>
<th>Local Women</th>
<th>State Men</th>
<th>State Women</th>
<th>Federal Men</th>
<th>Federal Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-99</td>
<td>10.1*</td>
<td>4.6*</td>
<td>1.6</td>
<td>1.7</td>
<td>5.6</td>
<td>1.0</td>
<td>1.8</td>
<td>-9.6</td>
</tr>
<tr>
<td>100-500</td>
<td>16.2*</td>
<td>12.9*</td>
<td>9.3*</td>
<td>1.9</td>
<td>-7.4</td>
<td>1.4</td>
<td>5.9</td>
<td>0.4</td>
</tr>
<tr>
<td>500-1,000</td>
<td>26.0*</td>
<td>27.2*</td>
<td>12.6*</td>
<td>2.3</td>
<td>-9.8</td>
<td>-1.1</td>
<td>11.3</td>
<td>-6.4</td>
</tr>
<tr>
<td>1,000 or more</td>
<td>32.8*</td>
<td>34.2*</td>
<td>19.2*</td>
<td>16.1*</td>
<td>6.8</td>
<td>4.1</td>
<td>8.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*The coefficient on the size category was significant at 5%.

NOTES: These percentage differentials are relative to the base group of establishments that have fewer than 50 employees. Separate equations were estimated within each sector and for each gender.
counterparts, and the federal wage differential emerges as smaller than previous comparisons would indicate.

It may be argued that the concept of establishment size lacks meaning in the federal sector. Despite the wording of the CPS question, much ambiguity remains and, as a consequence, workers may not identify any meaningful establishment size. As partial response to this, we attempted two other estimations. First, we assumed the concept of establishment to be so misleading that we removed the size variable from the federal wage equation while retaining it in the private sector. Although this allowed us to calculate only a private base wage differential, the differential narrowed as dramatically as those in Table 2. Second, we assumed the federal government was a large establishment and computed the differentials. Again, substantial narrowing of the differential was observed, indicating an even greater decline than that seen in Table 2. The fundamental result remains that larger establishment size generates premia in the private sector that we cannot identify, for whatever reason, in the federal sector.

EXTENSIONS

This investigation gains added importance when one realizes that the federal government explicitly considers establishment size when doing the comparability studies upon which their wages are based. In particular, the government bases federal pay only on those private sector establishments with more than 50 workers. Much of the previous literature on government wage differentials addresses the issue of the accuracy of these surveys and the policy that follows. Given the explicit role of establishment size in the comparability studies and the premiums associated with size in the private sector, any thorough examination of government wage policy should control for establishment size. At a minimum, past studies examining the accuracy of the federal pay survey should have excluded workers in the smallest establishments.

In this section, we use our estimated equations to evaluate the comparability of federal wages in more detail than the last section allowed. We begin by asking how the federal differential varies by size
of establishment. First, we use our base equations, which excluded size effects from the earnings equations. The mean characteristics of federal and private workers within a given size category are used for the typical Oaxaca presentation of differentials. As we might expect, Table 4 shows that large federal differentials exist in all size categories. There appears to be only a small decline in the differential as size increases. Using a simple average of the public and private base differentials, federal workers enjoy a 17% differential over private sector workers in the smallest establishments and 11% over those in the largest establishments.

Using the earnings equations, which include size effects, provides a profoundly different pattern. The differential enjoyed by federal workers in small establishments is a quite large 25% for men and 29% for women. On the other hand, federal workers in the largest establishments are actually underpaid relative to their private sector counterparts. If one weights the differentials across sizes and gender by the proportion of the federal employment they represent, the average differential across the three largest sizes is only 1%, a trivial difference. Yet, these three largest categories contain nearly two-thirds of federal government employees. The differential usually reported in the literature results primarily from the enormous differential in the smallest establishments, the very establishments excluded in federal pay surveys.

To this point, it seems fair to conclude that the federal government behaves as a large establishment with regard to the wages it offers. This conclusion may have implications for the frequently cited rationales for size effects. To the extent that large establishments need to

---

**TABLE 4**

Federal Differentials by Establishment Size

<table>
<thead>
<tr>
<th>Without Size Effects</th>
<th>With Size Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>1-49</td>
<td>16.6</td>
</tr>
<tr>
<td>50-99</td>
<td>13.0</td>
</tr>
<tr>
<td>100-499</td>
<td>13.7</td>
</tr>
<tr>
<td>500-999</td>
<td>11.2</td>
</tr>
<tr>
<td>1,000 or more</td>
<td>11.3</td>
</tr>
</tbody>
</table>
pay more to either attract special skills or overcome adverse conditions, the federal government may need to match such payments. On the other hand, if large establishments pay monopoly rents, the federal government merely compounds the problem by following the earnings policy of large establishments. Under either scenario, it remains federal employees in small establishments who seem to enjoy unexplained rents.

THE ROLE OF FIRM SIZE

In addition to demonstrating the existence of establishment size premiums in the private sector, a substantial empirical literature also demonstrates the existence of firm-size premiums in the private sector (see Dickens and Katz, 1986, for a review). Indeed, as Dunn (1984) points out, the rationales presented for these premiums often mimic those given for establishment size premiums. Thus, the issue arises as to whether public wage differentials should attempt to account for firm as well as establishment-size premiums.

Although establishment size has reasonable meaning in the public sector, the concept of firm size is more problematic. For example, the entire federal government may be considered the “firm” or perhaps it is the agency, the department, or the immediate office. More than 90% of federal workers in our sample identified themselves as in the largest category of firm size, more than 1,000 employees. As a result, it may not be surprising that we were unable to identify firm-size effects in the federal government. Nonetheless, there may be strong rationales for including firm size in the estimation of public wage differentials.

If private sector firm-size premiums represent compensating differentials for bureaucracy and hierarchy, they should be included in comparisons of public and private sector wages. The federal government must offer wages that compensate for these characteristics just as a large private firm would. Alternatively, Evans and Leighton (1989) contend that private sector firm-size premiums are in large measure the result of unobserved heterogeneity in workers. The employees of large firms differ from those of small firms in ways not captured by typical data sets. Evans and Leighton speculate that these
TABLE 5
Government Wage Differentials

<table>
<thead>
<tr>
<th>Differentials Using Both Firm and Establishment Size</th>
<th>Private</th>
<th>Public</th>
<th>Single Equation</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>17.6</td>
<td>3.6</td>
<td>3.8</td>
<td>-6.6</td>
</tr>
<tr>
<td></td>
<td>(1.81)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>12.2</td>
<td>3.1</td>
<td>4.3</td>
<td>-7.8</td>
</tr>
<tr>
<td></td>
<td>(1.80)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>-11.7</td>
<td>-5.3</td>
<td>-7.9</td>
<td>-3.4</td>
</tr>
<tr>
<td></td>
<td>(3.68)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>-1.0</td>
<td>-2.6</td>
<td>-2.2</td>
<td>-3.3</td>
</tr>
<tr>
<td></td>
<td>(1.15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>-6.7</td>
<td>-4.6</td>
<td>-6.0</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>(4.40)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>-6.2</td>
<td>-4.8</td>
<td>-5.9</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>(4.15)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: t statistics are in parentheses and the column marked "change" is the difference between the single-equation differential without both size variables (Table 2, column 3) and that with both size variables (column 3 above).

Differences include worker quality such that large firms hire workers who are more stable and likely to be long-term employees. If the federal government requires similar workers, it will again be competing with large firms and be forced to pay large-firm premiums.

To examine the effect of including both firm and establishment size, we reestimate each sector's wage equations, including not only the four establishment dummies but also four similar firm size dummies. Only the private sector consistently rewarded firm size as well as establishment size. Public wage differentials were again computed using both the Oaxaca approach and the single wage-equation approach. Table 5 presents the results. No significant positive differentials emerge. While the state and local differentials are generally negative, the federal differentials are so small as to be insignificantly different from 0 at the 5% level.

Several caveats should be stressed. First, the size categories make it possible that size premiums exist in the government but cannot be measured. With a finer breakdown of the 1,000-and-more category,
this could be examined. Second, public differentials can be easily computed that include firm size but not establishment size. We have made such computations and the results are available. They look generally similar to those using only establishment size. That is, the magnitude lies between those that include both establishment and firm size and those including neither. While such results may be interesting, they do not adequately address the challenge of Mitchell to standardize for the size of the workplace, which would seem to require accounting for establishment size. Third, and perhaps most important, these results provide no evidence on the overall comparison of public and private compensation. Such a comparison would incorporate the value of all fringe benefits, data not available to us. Those who have examined fringe benefits generally find that they are more generous and more readily available in the public sector (Belante and Long, 1981), yet no study on fringe benefit differentials has examined the issue of size premiums in benefit provision.

CONCLUSIONS

Our study began with the premise that establishment and firm size are consistent determinants of wages in the private sector. As such, they should be included in any estimation of public-private wage differentials. Upon including establishment size, we demonstrate that only federal employees retain a positive differential. Yet, even this differential is misleading because it emerges from a large positive differential among workers in the smallest of establishments and little or no differential among the majority of workers. This pattern emerges because of the absence of size effects within the federal sector. That is, the entire federal government seems to pay wages as if it were a medium or large establishment. Indeed, by consciously omitting the smallest establishments from federal comparability studies, such a result would seem ensured.

We considered the role that firm-size premiums might also play in the computation of public sector wage differentials. We confirm the existence of such premiums in the private sector and their near absence in the public sector. The consequence is that the federal differential,
in particular, loses a large share of its size and emerges as insignificantly different from zero. Thus, if it is felt that the federal government takes its employees from the large-firm pool and that it must match relevant private-sector establishment premiums, the evidence indicates that federal workers are not, on average, paid higher wages than their private-sector counterparts.

NOTES

1. For more on the rationale behind the size effect, see Shepard and Hougland (1984) and Brown and Medoff (1986).
3. For more on the particular role of the public administration industry in the estimation of government wage differentials, see Belman and Heywood (1988).
4. It is interesting to note that nearly an identical proportion of public and private workers reported establishment size, suggesting no greater ambiguity in identifying establishments in the public sector.
5. This test was performed by comparing the single equation estimates before and after the size effects and asking if the latter was significantly smaller. The standard error was based on those of the two estimates assuming no covariance.
6. This obviously leaves open the question of whether individual localities offer internal size premiums or whether localities with larger establishments offer higher wages.
7. This might result because of higher quit costs at large firms.

REFERENCES


Dale Belman and John S. Heywood are assistant professors at the University of Wisconsin-Milwaukee. This article represents the latest in a series of joint publications that have investigated public wage differentials. Others have explored the roles of selection bias, the public administration "industry," and fringe benefits.