

Public Transit Wages in Nonprivatized and Privatized  
Environments: The U.S. Experience

Wayne K. Talley  
Frederick W. Beazley Professor  
of Economics  
Old Dominion University  
Norfolk, Virginia 23529  
U.S.A.

## INTRODUCTION

1. The typical United States (U.S.) transit firm is publicly (i.e., local-government) owned, receiving subsidies from all three levels of government (federal, state and local). Prior to 1960, the typical firm was privately owned, receiving no government subsidies. While some argue that government ownership and subsidization have enabled the U.S. public transit industry to maintain and/or expand services, others maintain that any gains have been at the expense of cost inefficiency.\*
2. In the 1980s, the Reagan Administration sought the elimination of federal transit operating subsidies and the privatization of public transit services. The Administration held the view that transit operating subsidies were a wasteful use of government resources -- financing higher transit wages rather than improving or expanding service (Smerk, 1986) -- and that the private sector could provide transit services at lower cost. It lobbied Congress to eliminate federal subsidies; Congress resisted elimination but did reduce these subsidies. The reduction, however, was more than offset by increases in transit operating subsidies from state and local governments.†
3. The interest-group theory of government (Peltzman, 1976) suggests that groups with concentrated interests should be more successful in obtaining benefits than groups with more diffused interests. Taxpayers (the owners of public transit firms) are numerous, dispersed and generally uninformed and, thus, are not expected to take an interest in the day-to-day operations of the firm. Consequently, "the managers and employees of public enterprises accordingly have a great deal of discretion that they may use to further their own interests rather than the interests of the public at large" (Shughart and Kimenyi, 1991a, p. 255). Transit unions may use this discretion to enhance their bargaining power, resulting in a relatively large union premium (the ratio of union to nonunion wages).\*\*

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\*Evidence of cost inefficiency in public transit firms is found in studies by Viton (1986), Good (1992) and Kitchen (1992).

†In 1980, federal transit operating subsidies were \$1.1 billion; by 1983, they had declined to \$0.8 billion and remained relatively stable thereafter. In 1980, state and local transit operating subsidies were \$2.6 billion, increasing to \$5.4 billion and \$8.3 billion in 1984 and 1990, respectively (Transit Fact Book, 1992, p. 51).

\*\*Section 13(C) of the Urban Mass Transportation Act of 1964 has enhanced the bargaining power of transit unions by requiring transit firms receiving federal subsidies to comply with the labor-protection requirements of Section 13(C). The section requires that the "Secretary of Labor must be satisfied that the transit system will (1) maintain the affected employees' rights on the job, including previous wages, working conditions, and fringe benefits; (2) continue collective bargaining rights; and (3) provide, within prescribed minimal requirements, job security for employees affected by monies supplied by the federal government" (Barnum, 1971, p. 108).  
(continued...)

Schwarz-Miller and Talley (1995) estimated (using recent data) a public transit union-nonunion wage differential (or premium) of 52 percent. A comparison of public transit and private sector wages in Houston, Texas by Moore and Newman (1991) reveals that public transit workers are paid a significant wage premium relative to that for private workers.

4. In 1984, privatization (provision by private providers) of public transit services was established as a condition for receipt of federal transit operating subsidies. On October 22, 1984, the Urban Mass Transportation Administration (UMTA) issued its privatization policy, charging "localities with the responsibility of demonstrating that they were actively encouraging private firms to participate in the provision of new and restructured local services. Unless UMTA was satisfied on this score, localities would not be able to obtain or retain matching funds for these services" (Sclar et al., 1989, p. 9). Shortly thereafter, UMTA created the Office of Private Sector Initiatives (OPSI) to assist in the implementation of the policy. Strict enforcement of the policy would be monitored both by field personnel and through the complaint process at UMTA headquarters. A priority activity of the OPSI is "to encourage local planning organizations to explore private sector alternatives that have not been attempted, using the UMTA grant dollars they receive" (Stanley, 1991, p. 213); thereby establishing UMTA's approval of the use of transit subsidies to finance privatized services. In 1986, UMTA issued guidelines, requiring applicants for federal transit operating subsidies to submit documentation of their privatization efforts, including analyses of whether existing public transit services could be provided by private providers.
5. UMTA's privatization policy provided for contracting-out (or franchising) privatization rather than asset-transfer privatization. The former refers to the provision by the private sector of transit services formally provided (or would have been provided) by public transit firms or government agencies; the latter refers to the transfer of assets from the public to the private sector (e.g., the sale of a government-owned firm to private stockholders).<sup>††</sup> Providers of contracted-out service are generally selected by competitive bidding. Then, the public transit firm (or a government agency) enters into a contract, giving the private provider the exclusive right to provide the service in

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<sup>\*\*</sup>(...continued)

Gerhart (1975) suggests that Section 13(C) has protected and strengthened the collective bargaining power of public transit unions, providing them with an advantage over other public sector unions. However, Lager and Goldstein (1989) found that Section 13(C) is not a significant impediment to contracting-out.

<sup>††</sup>A discussion of the latter type of privatization for nontransport industries is found in Button and Weyman-Jones (1994).

question.\* Public transit firms typically contract with private providers for only part of their transportation service (or services) or for certain specific functions, e.g., body repairs and major overhauls to transit vehicles and certain administrative services. In 1985, 48 percent of all American Public Transportation Association members were involved in some of type of contracting-out; by 1987, 66 percent were involved (Luger and Goldstein, 1989, p. 248).†

6. Cost savings (potential and actual) in substituting contracted-out services for publicly-provided transit services have been documented and have been attributed to the lower labor costs of private providers (from paying lower wages and using nonunion labor).\*\* However, little is known of the impact of contracting-out privatization on public transit wages nor on public sector wages in general. If public sector wages fall, the total cost savings from privatization will exceed that from substituting lower-cost, privately-provided services for publicly-provided services; if public sector wages rise, the cost savings will be less or possibly no cost savings (if the increase in wages equals to or exceeds the cost savings of substitution).
7. This paper uses individual-level data of U.S. public transit employees to analyze the effects of contracting-out privatization on public transit wages. Our findings are that contracting-out privatization has significantly increased (by 13 percent) the wages of both union and nonunion public transit employees, attributed to the employment of higher-quality union and nonunion transit employees. The results suggest that the cost savings of contracting-out privatization based only upon replacing public services with lower-

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\*In the United Kingdom (U.K.), the 1985 Act deregulated the local-bus service industry, providing for free entry with government subsidies being dispersed on a competitive tendering basis. Competitive tendering is a form of franchising, where both public and private firms may compete to be the provider of subsidized bus services. For a discussion of privatization versus deregulation of U.S. and U.K. urban bus services, see Talley (1988). A discussion of transit privatization and deregulation around the world is found in Meyer and Gomez-Ibanez (1991).

†In addition to the federal government, state governments have also mandated privatization. In 1988, for example, the Colorado state legislature mandated that the Denver Regional Transportation District privatize at least 20 percent of its transit bus service.

\*\*Teal (1985), in one of the earliest studies to investigate the cost savings from contracting-out transit service, concludes that contracted-out services could produce cost savings of 15 to 60 percent. In a later study, relying upon a national survey, Teal's (1988) findings suggests actual cost savings are in the of range of 9 to 23 percent. "The private companies achieve lower labor costs mainly because they use nonunion labor, pay lower wages, and offer fewer benefits" (Black, 1991, p. 73).

cost, privatized services are overestimated, not only for the public transit industry but for the public sector in general.<sup>††</sup>

8. Data of individual public transit employees are taken from Current Population Survey (CPS) tapes. These data allow us to estimate, for example, the union premiums of public transit employees for nonprivatization and privatization periods, adjusting for various demographic factors such as years of experience, education, gender, marriage, race, and region. The investigation focuses on the wages of public transit bus drivers, selected because they represent the largest homogenous labor group of the predominant (i.e., bus) service of the U.S. public transit industry. The privatization period is defined as that time period beginning with the year 1985, since UMTA's privatization policy was issued in late October 1984 and the OPSI was created even later in the year; the nonprivatization period is represented by years prior to 1985.\*
9. The paper is structured as follows: Transit wages under various scenarios are discussed in Section II, providing important background for our understanding of the effects of privatization on public transit wages. Section III presents the data and a model for investigating transit wage rates in nonprivatization and privatization periods. Estimation results are detailed in Section IV. Conclusions are presented in Section V.

#### TRANSIT WAGES UNDER VARIOUS SCENARIOS

10. Analyzes of U.S. transit wages prior to publication (i.e., prior to government takeover and ownership) are found in studies by Lurie (1960, 1961). In a case study of the Boston transit system, Laurie (1960) found support for the hypothesis that government regulation enhances the ability of unions to raise wages. In his 1961 study, Laurie analyzed the effect of unionization on transit wages by estimating "the percentage by which unionism of local transit motormen has raised the wages of unionized motormen relative to what

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<sup>††</sup>Bhaskar and Khan (1995) using firm-level data from jute mills in Bangladesh found that asset-transfer privatization (from public to private sector ownership) reduced employment significantly, while the reduction in output is not statistically significant. The reduction in employment was primarily directed at white-collar employees, suggesting that public sector employment of white-collar workers was particularly excessive. Since wages have been constrained to be equal in all mills, Bhaskar and Khan (1995) were unable to analyze the effects of asset-transfer privatization on wages. This study fills in a void in the literature by analyzing the effects of privatization (though only for contracting-out privatization) on wages.

\*The Urban Mass Transportation Act of 1964 included "legislative language which encourages private sector participation in the federal transit program to the maximum extent feasible. These provisions have been greatly ignored by most transit authorities" (Stanley, 1991, p. 212). By issuing its privatization policy on October 22, 1984, UMTA renewed its commitment to achieving this goal.

these wages would have been in the absence of the unionization of motormen" (Laurie, 1961, p. 558). The estimated percentages for the 1920's, the early 1930's, the late 1930's, and the 1940's are 15 to 20 percent, 20 to 25 percent, 5 to 10 percent, and less than 18 percent, respectively.

11. Studies by Barnum (1971) and Hamermesh (1975) analyzed the effect of government ownership on U.S. transit wages. Barnum (1971, p. 115) tested (using 1969 data) for the difference between the wages of experienced bus drivers in public and private transit systems, concluding that "public ownership per se has not appeared to affect wage rates, but it is likely that other factors often accompanying public ownership (such as political control and subsidization) will do so in the future." Hamermesh (1975, pp. 237-238) utilized beginning wages of union bus drivers of transit systems (public and private) for 48 cities for the period 1963-71, finding "no unusually large change in wages in private firms coincident with the rise in the extent of public ownership." If publization (from private to public ownership) had little or no effect on transit wages, one might be tempted to infer that privatization would have little or no effect as well. However, remember our type of privatization is contracting-out (or franchising), creating competition for transit services, rather than the change from public to private ownership for which competition for transit services would not per se be necessarily created.<sup>†</sup>
  
12. Evidence regarding the effect of transit operating subsidies on public transit wages is somewhat mixed: Pucher et al. (1983), utilizing pooled data of public transit bus systems for 1979 and 1980, found a significant positive relationship between the base hourly wage of bus drivers and federal (and state) operating subsidies per bus hour of service. Obeng et al. (1994), using 1985 cross-sectional data of public transit bus systems, found a significant positive relationship between the systems' average hourly labor compensation rates and state and local operating subsidies and a negative (but insignificant) relationship for federal operating subsidies. Also, Shughart and Kimenyi (1991b), utilizing pooled data of public transit bus systems for 1984, 1985, and 1986, found a significant positive relationship between the systems' top hourly driver wages and state and local operating subsidies (expressed as a percentage of a system's revenue) but a significant negative relationship with respect to the proportion of system revenue attributable to federal operating subsidies. They attribute the latter to an overallocation of federal operating subsidies to smaller transit systems: "factors entering into calculating the federal operating subsidy amount cause transit systems in smaller cities to receive a proportionately greater share of operating revenues from federal sources than their

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<sup>†</sup>In their discussion of the performance of public and private firms, Kay and Thompson (1986, p. 24) conclude that "it is not ownership as such, but the interaction of ownership and competition that promotes efficiency." Further, "scope exists for introducing competition (in particular through franchising) in industries traditionally regarded as natural monopolies or where significant external benefits and costs require recognition" (Kay and Thompson, 1986, p. 31).

counterparts in larger cities who consequently rely more heavily on state and local subsidies" (Shughart and Kimenyi, 1991b, p. 28). A drawback to these studies is their use of firm-level (and therefore their use of average or representative wages) rather than individual-level wage data; consequently, their wage results have not been adjusted for the effects of individual demographic factors such as experience, education, gender, race and location.

13. A study by Talley and Anderson (1986) of a single U.S. public transit firm, providing contracted-out service, concluded that the transit union perceived contracted-out service to be a threat to the security of union jobs, thereby agreeing to a number of cost-saving work-rule and wage-tier concessions in exchange for the firm agreeing to limit future contracting-out. Under the wage-tier concession, an union operator would have to work for the firm for eight (rather than two) years before receiving the top union wage rate.<sup>\*\*</sup> Note that a wage-tier concession may or may not result in a reduction in a firm's average union wage: If over time the average experience of a firm's union workers decline (i.e., more experienced union workers are replaced with less experienced union workers), more than offsetting the general increase in the firm's union wage structure, then the firm's average union wage will decline; conversely, the firm's average union wage will rise.

## DATA AND MODELING

14. Current Population Survey (CPS) data (of the Bureau of the Census) for the years 1976-81 and 1983-93 are used to analyze the wages and the union-nonunion wage differential (or union premium) of public transit bus drivers prior to and following privatization.<sup>††</sup> The year 1982 was omitted, because union status information was not collected in the survey. For the 1976-81 period, May CPS tapes were used, while 12-month CPS tapes were used for the 1983-93 period. Prior to 1983, 12-month CPS tapes were not

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<sup>\*\*</sup>Deregulation of bus service in the U.K. resulted in wage reductions in the U.K. bus service industry. These reductions are attributable to: 1) cost-saving work-rule concessions; 2) wage-tier concessions; and 3) the payment of minibas drivers at lower rates than "big bus" drivers. It appears that the "mere threat of competition from entrants such as UTB was sufficient to force unions to cave in on the introduction of minibas wage rates and working practices" (Heseltine and Silcock, 1990, p. 251).

<sup>††</sup>For this study, CPS data have two shortcomings: First, CPS data contain worker earnings, but not benefits; ideally, we would prefer to analyze workers' total compensation packages of earnings and benefits. Second, the CPS survey typically does not collect information on respondents' employers; consequently, we are unable to control for firm characteristics.

available.\* The basic sample includes all public (i.e., government-employed) bus drivers, providing for-hire public transit bus service, and who worked 30 or more hours a week (i.e., worked full-time) and provided information on usual weekly hours worked, usual weekly earnings, union status, and a variety of demographic data.

15. The impact of privatization is gauged by estimating an equation using pooled nonprivatization and privatization data and is of the form

$$\ln WAGE_{ij} = \sum \beta_k X_{ijk} + \alpha_1 UNION_{ij} + \alpha_2 PRIV + \alpha_3 UPRIV + \epsilon_{ij}, \quad (1)$$

where the index  $i$  represents the  $i$ th individual;  $j$  represents the  $j$ th year;  $\ln WAGE$  is the natural log of hourly earnings in 1982-84 dollars;† and  $\epsilon$  is a stochastic error term with zero mean and constant variance. The control vector  $X$  includes a constant ( $X_0 = 1$ ) and  $k$  variables including years of schooling completed (SCHOOL); years of experience, approximated as age - SCHOOL - 5, and years of experience squared/100 (EX and EXS); and binary variables equal to 1 if the driver is white (WHITE), married (MARRIED), male (MALE), or working in the Northeast (NORTHEAST), South (SOUTH) or West (WEST), as opposed to working in the North Central region of the country. The control vector also includes annual total government (from all levels) transit operating subsidies in 1982-1984 dollars (SUBSIDY), thereby allowing us to control for operating subsidies in investigating the effect of privatization on transit wages.\*\* UNION is a binary variable equal to 1 if the driver belongs to a union; PRIV is a binary variable equal to 1 in the 1984-93 (the privatization) period; and UPRIV is an interaction term equal to 1 for union drivers in the privatization period.

16. In equation (1), the union-nonunion log wage differential (or union premium) for public transit bus drivers in the nonprivatization period equals  $\alpha_1$ , the log wage differential for nonunion drivers in the privatization period relative to the nonprivatization period equals  $\alpha_2$ , and  $\alpha_3$  is the change in the union-nonunion log wage differential in the privatization period. Thus, the log wage differential for union drivers in the privatization period relative to the nonprivatization period equals  $\alpha_2 + \alpha_3$ , and the union-nonunion log wage differential in the privatization period equals  $\alpha_1 + \alpha_3$ .

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\*The May CPS tapes were obtained from the Inter-university Consortium for Political and Social Research (ICPSR). The 12-month CPS tapes were obtained from the Data Services Group at the Bureau of Labor Statistics.

†Hourly earnings are the ratio of "usual weekly earnings" divided by "usual hours worked per week" and are deflated using the Consumer Price Index (CPI).

\*\*The variable SUBSIDY is the annual sum of federal, state and local government transit operating subsidies (taken from various issues of the Transit Fact Book) deflated using the Consumer Price Index (CPI). These data (per conversation with the American Public Transit Association) are also available by transit system but are not available by state nor region.



17. Our earlier discussion of transit wages suggests that union bus drivers should earn a premium in both periods -- the signs of  $\alpha_1$  and  $\alpha_1 + \alpha_3$  should be positive. Since contracted-out service is expected to be provided by nonunion drivers, the demand for nonunion bus drivers should increase, subsequently resulting in an increase in nonunion bus driver wages (for both contracted-out providers and the public transit industry); if so, the a priori sign of  $\alpha_2$  is positive. Also, if privatization precipitates an increase in the employment of higher-quality nonunion drivers by public transit firms, nonunion transit driver wages should increase (i.e., a positive a priori sign for  $\alpha_2$ ). If displaced union transit drivers spill over into nonunion jobs, nonunion driver wages may decline; if so, the a priori sign of  $\alpha_2$  is ambiguous. If privatization precipitates a decrease in the demand for union transit bus drivers, union transit driver wages should decline (i.e., a negative a priori sign for  $\alpha_2 + \alpha_3$  and by deduction, a negative a priori sign for  $\alpha_3$ ). Alternatively, if privatization precipitates an increase in the employment of higher-quality union drivers by public transit firms, union transit driver wages should increase (i.e., positive rather than negative a priori signs for the above coefficients). When services are contracted-out, public transit firms do have the opportunity to be more selective in hiring for provision of their remaining services and/or the opportunity to release lower-quality labor and therefore retain higher-quality labor.<sup>††</sup>

## ESTIMATION RESULTS

18. Estimation results for equation (1) appear in Table 1. The results for the 1976-84 nonprivatization and 1985-93 privatization periods (where  $\alpha_2$  and  $\alpha_3$  are constrained to be zero) appear in columns one and two, respectively, confirming the prediction that union transit bus drivers enjoy a significant wage advantage over nonunion drivers; the coefficients of the union binary variable translate into union premia of 47.1 percent and 50.4 percent, respectively. Note that the coefficient of the control variable, driver experience (EX), is positive and significant at the five percent level for the privatization period and more than three times greater than the coefficient for the nonprivatization period -- suggesting that improvements (reflected in greater driver experience) in driver quality led to higher driver (union and nonunion) wages in the privatization period.<sup>\*</sup> The

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<sup>††</sup>In a study of the labor earnings of the deregulated U.S. trucking industry, Hirsch (1993) found support for the hypothesis that union employers select and retain relatively high-quality drivers in a deregulated environment. Specifically, Hirsch (1993) concluded that in the trucking post-deregulation environment "a substantial portion of the union-nonunion wage differential is a compensating premium for unmeasured driver quality" (Hirsch, 1993, p. 297).

<sup>\*</sup>The experience variable EX represents years of potential experience. The CPS data do not provide years of actual experience. However, Hirsch (1993) found a positive correlation between years of tenure on current job and potential experience (EX) for for-hire truck drivers, suggesting that a rise in potential experience also reflects a rise in job tenure and thus an improvement in driver quality.

arithmetic means of EX (found in the Appendix) do indicate that the quality of both union and nonunion drivers improved from the nonprivatization to the privatization period: The mean experience levels are 13.4 and 25.7 years for union drivers and 14.2 and 25.2 years for nonunion drivers for the nonprivatization and privatization periods, respectively.

19. The coefficient of the transit operating subsidy variable (SUBSIDY) is negative and significant for the privatization period (while insignificant although negative for the nonprivatization period), suggesting that operating subsidies (after adjusting for demographic factors) had a negative effect on transit driver wages in the privatization period. This result is initially puzzling, since the literature suggests (although mixed) that operating subsidies lead to higher wages. Further insight into this result is gained by reestimating equation (1) for the two periods, where the SUBSIDY variable is replaced with two variables, one representing federal government transit operating subsidies and the other representing the sum of state and local government transit operating subsidies. Note that the SUBSIDY variable may be defined as the sum of these two subsidy variables.
20. For the nonprivatization period, both federal and state-local subsidy variables have negative coefficients and are insignificant; for the privatization period, their coefficients remain negative -- however, the state-local subsidy variable is significant at the five percent level while the federal subsidy variable remains insignificant, suggesting that after adjusting for driver experience and other demographic factors, the increase in state-local (relative to federal) operating subsidies in the privatization period had a negative effect (unlike federal subsidies) on driver wages in this period. Estimations restricted to union and nonunion drivers also reveal that the state-local subsidy variable is negative and significant at the ten percent level for both types of drivers in the privatization period (but not significant for the nonprivatization period), suggesting that state-local operating subsidies had a negative effect on the wages of both union and nonunion drivers in the privatization period. A likely explanation (which we are unable to test) for these results is that in subsidizing contracted-out services, state-local transit operating subsidies result in a decrease in the demand for both union and nonunion transit drivers, negatively affecting their wages.
21. Estimation results for equation (1) for the two periods pooled appear in column (3) of Table 1. The coefficient of the union binary variable is positive and highly significant, translating into a driver union premium of 50.0 percent for the nonprivatization period. The coefficient of the interaction term UPRIV ( $\alpha_3$ ) is small and insignificant, indicating no change in the union premium in the privatization period. The coefficient of the privatization binary variable PRIV ( $\alpha_2$ ) is positive and highly significant, translating into an 13.0 percent increase in transit driver nonunion wages in the privatization relative to the nonprivatization period. The unchanged union premium in the privatization period likewise implies that the wages of union drivers also increased by 13.0 percent. Also,  $\alpha_2 + \alpha_3$  is positive and significant at the one percent level ( $t = 3.17$ ), yielding the predicted

increase in union driver wages in the privatization period. These results are supported by the arithmetic means of driver real wages found in the Appendix. The mean real wage of union drivers increased from \$9.25 in the 1976-84 period to \$9.61 in the 1985-93 period; the mean real wage of nonunion drivers increased from \$5.90 to \$6.03.

22. The coefficient of SUBSIDY is negative and significant at the five percent level (as for the privatization period estimation), suggesting that the increase in driver wages attributable to other factors more than offsets the negative effect of operating subsidies on these wages. The wage increase for union drivers also more than offsets the expected decrease in union driver wages, resulting from the expected decrease in the demand for union transit drivers when services are contracted-out.
23. The analysis heretofore has been limited to public transit bus drivers. The increase in union and nonunion transit driver wages, however, could be due to cyclical and other factors on the labor market as a whole other than privatization. If so, rising union and nonunion driver wages reflect an economywide response rather than a privatization response. To address this possibility, we estimate equation (1) for private nontransport operatives and then for public (or government-employed) nontransport operatives. Private and public nontransport operative estimations are made to distinguish between possible labor market differences in the private and public sectors. Pooled samples for the years 1977, 1979, 1985, and 1990 are used in the estimations.<sup>†</sup> The findings are then compared to those for the public transit bus driver sample.
24. The estimation results for private nontransport operatives appear in column (1) of Table 2. The coefficient of the union binary variable is positive and highly significant, translating into a wage premium of 23.0 percent for union private operatives in the nonprivatization period, substantially less than the 50.0 percent premium for public transit bus drivers. The coefficient of the PRIV binary variable is negative and highly significant, translating into a decline of 14.0 percent in private operative nonunion wages in the privatization relative to the nonprivatization period as compared with a 13.0 percent increase for transit drivers. The coefficient of the UPRIV binary variable is positive and highly significant, suggesting that the union premium for private operatives in the privatization period increased by 10.0 percent as compared with no increase for transit drivers. The estimate of  $\alpha_2 + \alpha_3$  (-0.0325) is negative and significant at the five percent level, suggesting that union wages of private operatives declined by 3.0 percent

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<sup>†</sup>The control group of nontransport operatives consists of comparable workers not likely to be affected by the public transit environment. The selected nontransport operatives are workers in the following occupational categories: lathe and turning machine operators (704), welders and cutters (783), and production inspectors and examiners (796), where the numbers in parentheses are occupational codes of the U.S. Department of Commerce. This nontransport group was also used by Hirsch (1988) in a truck labor earnings study.

in the privatization period; by comparison, union wages of transit drivers increased by 13.0 percent.

25. In column (2) of Table 2, the estimation results for public nontransport operatives appear. The coefficient of UNION is positive and significant at the ten percent level, translating into a wage premium of 53.0 percent for union public operatives in the nonprivatization period and comparable with the 50.0 percent premium for public transit drivers. The coefficients of PRIV and UPRIV have negative signs (unlike that for transit drivers) and are insignificant. The divergent results for nontransport operatives (private and public) and public transit bus drivers suggest that the positive association between privatization and union and nonunion public transit driver wages is neither a general economywide phenomenon nor a phenomenon reflective of the particular data set used but rather is a privatization response.

## CONCLUSION

26. Our analysis shows that contracting-out privatization of the U.S. public transit industry increased the wages of both union and nonunion public transit bus drivers by 13 percent, attributed to the employment of higher-quality union and nonunion transit drivers (reflected in years of experience). After service is contracted-out to private providers, higher-quality transit drivers are retained and/or employed to provide the remaining transit services. The results suggest that the cost-savings of contracted-out privatization based only upon replacing public services with lower-cost, privatized services are overestimated, not only for the public transit industry but for the public sector in general.
27. The increase in public transit driver wages (attributed to employing higher-quality drivers) in the privatization period more than offsets the negative effect of rising state-local government transit operating subsidies on these wages. The likely explanation for the negative subsidy effect is that the subsidization of contracted-out services with state-local government transit operating subsidies results in a decrease in the demand for transit drivers, negatively affecting transit driver wages. Hence, contracting-out privatization not only provides an opportunity for a public transit firm to employ higher-quality employees (thereby having a positive effect on transit wages) but also the opportunity to divert transit operating subsidies to contracted-out services (thereby having a negative effect on transit wages).

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Table 1: LOG WAGE ESTIMATE FOR PUBLIC TRANSIT DRIVERS

<u>Variable</u>	<u>1976-84</u>	<u>1985-93</u>	<u>1976-93</u>
Constant	1.694* (0.150)	2.096* (0.366)	1.671* (0.101)
SCHOOL	0.006 (0.009)	0.013** (0.007)	0.010*** (0.005)
EX	0.003 (0.002)	0.011** (0.004)	0.003** (0.002)
EXS	-0.013** (0.006)	-0.017** (0.008)	-0.007** (0.003)
WHITE	-0.024 (0.045)	-0.054** (0.026)	-0.046** (0.023)
MALE	0.144* (0.042)	0.120* (0.024)	0.124* (0.021)
MARRIED	0.006 (0.052)	0.010 (0.031)	0.007 (0.026)
NORTHEAST	0.080 (0.060)	0.114* (0.033)	0.107* (0.029)
SOUTH	-0.095*** (0.055)	-0.009 (0.032)	-0.034 (0.028)
WEST	0.122** (0.056)	0.123* (0.034)	0.131* (0.029)
SUBSIDY	-2.389*10 <sup>-5</sup> (1.798*10 <sup>-5</sup> )	-1.030*10 <sup>-4</sup> ** (4.984*10 <sup>-5</sup> )	-3.802*10 <sup>-5</sup> ** (1.506*10 <sup>-5</sup> )
UNION	0.386* (0.042)	0.408* (0.026)	0.405* (0.035)
PRIV			0.119* (0.042)
UPRIV			0.004 (0.042)
R <sup>2</sup>	0.340	0.393	0.373
R <sup>2</sup>	0.322	0.385	0.366
n	417	838	1,255

\*(\*\*, \*\*\*) significant at the 1(5, 10) percent level; standard errors are in parentheses; n represents sample size.



Table 2: LOG WAGE ESTIMATE FOR NONTRANSPORT OPERATIVES  
(1977, 1979, 1985, 1990)

<u>Variable</u>	<u>Private</u>	<u>Public</u>
Constant	0.882* (0.033)	-1.225* (0.439)
SCHOOL	0.047* (0.002)	0.150* (0.024)
EX	0.021* (0.001)	0.051* (0.019)
EXS	-0.030* (0.002)	-0.075** (0.036)
WHITE	0.063* (0.012)	-0.138 (0.167)
MALE	0.296* (0.009)	0.196 (0.202)
MARRIED	0.045* (0.009)	0.640* (0.161)
NORTHEAST	-0.030* (0.012)	0.031 (0.232)
SOUTH	-0.067 (0.011)	0.180 (0.195)
WEST	0.026** (0.013)	0.218 (0.200)
UNION	0.206* (0.015)	0.423*** (0.243)
PRIV	-0.132* (0.012)	-0.166 (0.183)
UPRIV	0.099* (0.019)	-0.043 (0.308)
R <sup>2</sup>	0.376	0.580
R <sup>2</sup>	0.375	0.533
n	7,011	122

\*(\*\*, \*\*\*) significant at the 1(5, 10) percent level; standard errors are in parentheses; n represents sample size.

Appendix: PUBLIC TRANSIT DESCRIPTIVE STATISTICS: MEAN AND STANDARD DEVIATION\*

Variable	Union		Nonunion	
	<u>1976-84</u>	<u>1985-93</u>	<u>1976-84</u>	<u>1985-93</u>
SCHOOL	12.992 (1.611)	13.234 (1.848)	12.301 (2.648)	12.738 (1.944)
EX	13.427 (18.648)	25.735 (10.313)	14.208 (22.076)	25.245 (12.595)
EXS	5.266 (5.177)	7.684 (5.680)	6.871 (7.038)	7.955 (7.007)
WHITE	0.711 (0.454)	0.669 (0.471)	0.767 (0.424)	0.704 (0.457)
MALE	0.736 (0.442)	0.709 (0.455)	0.623 (0.486)	0.538 (0.499)
MARRIED	0.812 (0.392)	0.805 (0.397)	0.822 (0.383)	0.816 (0.388)
NORTHEAST	0.356 (0.480)	0.321 (0.467)	0.106 (0.308)	0.096 (0.295)
SOUTH	0.167 (0.374)	0.168 (0.374)	0.420 (0.495)	0.548 (0.498)
WEST	0.289 (0.454)	0.224 (0.417)	0.233 (0.424)	0.143 (0.350)
Real WAGE	9.254 (2.862)	9.605 (2.763)	5.901 (2.420)	6.025 (2.343)
n	211	509	206	331

\*Standard deviations are in parentheses; n represents sample size.