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INFLATION STABILIZATION AND THE VANISHING SIZE-WAGE EFFECT

CHRISTOPHER WOODRUFF*

The author examines wage patterns under an incomes policy in Mexico in 1987–94. The policy specified increases in the minimum wage rate, but also guided salary negotiations more generally. The author finds indications of a substantial but largely temporary effect on wage rates, and evidence consistent with more intensive monitoring of compliance in large firms than in smaller ones. For example, three years after policy implementation, public sector wages had fallen approximately 10% relative to private sector wages, and wages in the largest private firms had fallen 15% relative to those in the smallest private firms. These relative wage effects are consistent with the centralized administration of the policy.

Wage guidelines long have played a role in governments' attempts to reduce the rate of inflation. Incomes policies, as the guidelines are called, have been used extensively since the Second World War in Europe and the United States. More recently, incomes policies have been included in stabilization programs designed to reduce much higher rates of inflation in Latin America. There has been little analysis of the effects of incomes policies in a developing country context, perhaps because the data necessary to do so only re-

cently have become available. This paper examines wage patterns under an incomes policy using labor survey data from Mexico for 1987–94.

Mexico implemented an incomes policy in December 1987 through a series of agreements negotiated between the government and representatives of the business and labor sectors. The Mexican *Pactos*, as they were known, specified increases in the minimum wage rate. But as President de la Madrid stated in announcing the first agreement, the minimum wage increases were intended to be "guides for salary negotiations" more generally. In the years following implementation of the first agreement,

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A data appendix with additional results, and copies of the computer programs used to generate the results presented in the paper, are available from the author at IR/PS 0519, University of California–San Diego, La Jolla, CA 92893.

the real minimum wage fell substantially. But during this period the percentage of full-time workers who reported earning the minimum wage or less also fell substantially, and real wages in the manufacturing sector increased by nearly 5% annually. Given these data, it is fair to ask whether the controls had any effect on wages in Mexico.

The premise of this paper is that the drift from the wage guidelines was not random. The *Pactos* were implemented in a centralized manner. Those in charge of enforcing the wage and price guidelines focused their effort on the most visible economic agents—large firms, unions, and public sector workers. Moreover, large employers were more directly represented in the negotiations than were small employers, and hence their actions were subject to greater scrutiny. Union leaders also participated in the process, and I show below that union membership increased with firm size. Both business and union participation led to the expectation that the wage guidelines would be more strictly enforced in larger firms. As a result, I expect the data to show greater wage drift among workers in smaller firms, and a compression of the size-wage effect during the Pacto period.

The wage controls were implemented concurrently with trade liberalization, privatization of state-owned enterprises, and other economic reforms. These policy changes also may have affected the relative wages of workers in various sectors. Alternative explanations for changes in the relative wage patterns also will be considered.

The *Pactos*

In the fall of 1987, inflation in Mexico reached an annual rate of 250%. On November 18, the Mexican government stopped supporting the peso on international currency markets, and the peso fell 23% against the dollar in a single day. The devaluation and subsequent demands by labor for wage increases of 46% raised the specter of hyperinflation and brought inflation stabilization to the front of the economic agenda.

Meetings between the government and

representatives of the business and labor sectors resulted in the December 15 signing of the *Pacto de Solidaridad Económica* (*PSE*). This first *Pacto* promised comprehensive economic reforms aimed at reducing inflationary pressures without destroying economic growth. The government agreed to reduce its deficit by 3% of GDP, roughly half of which was to come from expenditure cuts and half from increased revenues, primarily from higher public sector prices; the pace of trade liberalization was quickened, with the maximum tariff reduced from 40% to 20%; and the nominal peso-dollar exchange rate was fixed.¹ For their part, representatives of business and labor agreed to general wage and price controls. Minimum wages increased 15% immediately, and a further 20% on January 1, 1988.

The original agreement lasted for two and one-half months. The first renewal, covering the month of March 1988, allowed for an increase in wages of 3%. The subsequent three renewals, which collectively extended the *Pacto* through the end of 1988, kept nominal wage rates and the nominal peso-dollar exchange rate fixed. The *PSE* was replaced with the *Pacto para la Estabilidad y el Crecimiento Económico* (Pact for Stability and Economic Growth) in January 1989. With annual renegotiations, the latter pact remained in effect through 1994.²

As the data in Table 1 indicate, the stabilization program was effective in rapidly reducing inflation with modest effects on economic growth. Inflation fell from 159% in 1987 to less than 20% in 1989. Although Finance Secretary Aspe claims minimum wages were set “to keep purchasing power

¹In the first *Pacto*, the government also agreed to exercise “monetary control,” though explicit monetary targets were not mentioned (*Comercio Exterior* 1987). Given the government’s control over monetary policy, the broader stabilization program should be seen to include monetary policy as well.

²The *Pactos* and their part in the overall economic program are described in Kaufman et al. (1994) and Lustig (1992:50–54).

in line with expected inflation" (Aspe 1993:26), real minimum wages fell by 12.5% in 1988 and a further 6% in 1989. As a whole, workers fared better than the minimum wage levels suggest. Average manufacturing wages actually increased in real terms by 8.8% in 1989 and by 3.2% in 1990, indicating wage drift was substantial.³

The guidelines were enforced in a centralized, top-down manner, with the Commission of Monitoring and Prices given primary responsibility for compliance monitoring. According to Jose Cordoba (then the Chief of Staff to the President),

Weekly meetings between the secretaries of the economic cabinet and top business and union leaders have been held systematically since the beginning of the Pact to evaluate the state of the economy and the degree of compliance with the various commitments: the various sectors have become more sensitive about the country's economic dilemmas and have behaved in a more socially responsible manner. The fact that union and, to a lesser extent, business leaders authentically represent their memberships has enabled commitments to be *disaggregated from the top down* and enforced through several stages of the program. (Cordoba 1994:241; emphasis added)

The weekly meetings of the Commission were most effective in controlling the behavior of "leading firms in industry and commerce" (Kaufman et al. 1994:388; see also Aspe 1993:40–43). Because the price and wage controls were never given the force of law, their enforcement relied on "intimidation" by the government, using

threats of "further tariff reductions, economic sanctions, formal price controls, and labor unrest" (Kaufman et al. 1994:388). The government was the central actor in the pact, and its compliance with its own commitments was fundamental in "building the moral authority required to keep the participants together within the Pact" (Cordoba 1994:241).

The wage increases included in the *Pactos* generally applied specifically to minimum wages. But the increases were intended to be a "guide to salary negotiation" more generally (*Comercio Exterior* 1987:1078). For example, the first renewal of the *Pacto* in February 1988 stated, "The business sector will raise contractual salaries to the same extent that minimum wages are increased" (Presidencia de Mexico 1988).⁴ Not all employees in Mexico work under formal written contracts. In 1994, the only year in the period studied for which data are available, only 21% of wage workers in the smallest firms (1–5 workers) had a written contract. This percentage was higher in larger firms: 54% in firms with 6–15 employees, 78% in firms with 16–50 employees, 91% in firms with 51–250 employees, and 96% in firms with more than 250 employees.⁵

The available data, discussed below, also indicate that union membership increased as firm size increased. Union leaders, who were major players in enforcing the *Pactos*, officially expressed mixed views about the agreements. Although many leaders resented the limits on wage increases the *Pactos* imposed, they noted that they benefited from lower inflation. For example,

³Wage drift also characterized price and wage controls in the United States and Britain. See Hamermesh and Rees (1988) for an overview of this literature. Analysis of the U.S./European experience with incomes policies has focused on the effectiveness of the programs in reducing overall wage inflation, or on their effect on wage dispersion, not on relative wages. Brown (1976) and Ashenfelter and Layard (1983) analyzed the British experience of the 1970s. Fallick and Elliot (1981) discussed British as well as U.S. and other European experience. Reid (1981) and Zaidi (1986) provided examples of the first type of analysis, while Ashenfelter and Layard (1983) and Brown (1976) discussed the effect on wage dispersion.

⁴The December 1987 agreement also explicitly applied to all contractual wages.

⁵The 1994 survey asked workers what type of contract they had. The four responses to the question, along with the overall response rates of wage workers, were: written contract of indefinite length (64%); written contract of fixed length (11%); oral contract (25%); and other (0.1%). The two categories of written contracts are combined in the averages presented here. Written contracts indicate a formal employment relationship and entitle workers to "rights and obligations of labor laws" (INEGI 1995).

Table 1. Wages and Economic Growth: Mexico, 1987–1994.

Year	Inflation Rate (CPI)	% Chg. Real Min. Wage	% Chg. Real Mftg. Wage	GDP Growth	Interest Rate (28 Day Bills)
1987	159.2%	-8.37%		1.9%	96.05%
1988	51.7%	-12.51%	-0.50%	1.2%	69.53%
1989	19.7%	-6.07%	8.80%	3.3%	44.99%
1990	29.9%	-9.35%	3.20%	4.5%	34.76%
1991	18.8%	-3.97%	4.80%	3.6%	19.28%
1992	11.9%	-4.93%	9.80%	2.8%	15.62%
1993	8.0%	-1.53%	4.90%	0.6%	14.99%
1994	7.1%	0.02%	3.70%	3.5%	14.10%

Note: Values are averages for the year.

Source: Compiled by the author with data from Banco de Mexico, *The Mexican Economy* (1994, 1996).

the leader of the Communication and Transportation Workers Union argued against a wage increase, saying, "If I raise [wages] 1000 pesos, prices will go up twice that, and inflation will accelerate."⁶ Business cited the guidelines in bargaining with unions. During negotiations with workers in 1989, a representative of the national oil company (Pemex) noted, "There is no reason there should be any exception to the salary guidelines [of 14%]" (Serrano 1989). Similarly, a Ford spokesman noted that a 9.9% wage increase granted union members in 1993 was "fair and in line with government policies" (Lazaroff 1993).

The verifiability that written contracts provide, organized labor's participation in the process, and the prominence of larger actors led the government to focus enforcement efforts on the most visible actors. The cost of enforcement prevented equal enforcement for smaller players. As a result, three patterns of relative wage changes should be expected during the implementation of wage controls. First, since the government's own compliance was a key to

the success of the program and since government workers all have written contracts, public sector wages should fall relative to private sector wages. Second, within the private sector, wages of workers in large firms should fall relative to those of workers in small firms.⁷ Both written contracts and union membership are more common in larger firms. Finally, earnings of self-employed workers should rise relative to earnings of wage workers. These predictions are tested with wage data from Mexico in the next section.

Data

Data from the National Urban Employment Survey (ENEU) for the three largest urban areas in Mexico (Mexico City, Guadalajara, and Monterrey) and four cities along the U.S.-Mexico border (Matamoros, Nuevo Laredo, Juarez, and Tijuana) for the period 1987–94 are used in the study (INEGI 1995). The data and the survey are described in more detail in

⁶Estrella (1989). The extent to which comments of this sort simply represent co-optation of union leaders by the government is a debated subject. Roxborough (1992) provided an interesting discussion of this. Regardless of the extent to which union leaders represented workers' views, they appear to have accepted the wage limits.

⁷Brown found only a hint of the size-wage effect operating in Britain with the incomes policies of the early 1970s. Only in 1973, and only for laborers, was there a significant increase in deviation from target as firm size increased. Brown concluded, "Given that enforcement at all stages of the policy was related to the size of firm, it is the absence or weakness of this relationship ... which should be emphasized" (Brown 1976:34.)

Table 2. Characteristics of Wage Workers by Sector.
(Standard Errors in Parentheses)

Characteristic	Public/Private	1987	1988	1989	1990	1994
Mean Real Hourly Wage (1987 Pesos)	Public	1,168 (647)	1,165 (753)	1,199 (927)	1,162 (925)	1,781 (1,553)
	Private	923 (613)	960 (806)	1,074 (1,136)	1,097 (1,442)	1,270 (1,633)
Mean Log Hourly Wage (1987 Pesos)	Public	6.94 (0.48)	6.92 (0.51)	6.94 (0.52)	6.89 (0.53)	7.24 (0.68)
	Private	6.69 (0.48)	6.70 (0.51)	6.79 (0.55)	6.77 (0.59)	6.87 (0.65)
Mean Years of Education	Public	10.53 (4.41)	10.51 (4.40)	10.77 (4.37)	10.85 (4.21)	11.58 (4.14)
	Private	8.06 (3.87)	8.29 (3.84)	8.47 (3.82)	8.61 (3.85)	9.01 (3.89)
Proportion with High School	Public	0.47 (0.50)	0.47 (.050)	0.50 (0.50)	0.51 (0.50)	0.60 (0.49)
	Private	0.21 (0.41)	0.22 (0.41)	0.23 (0.42)	0.25 (0.43)	0.29 (0.45)
Proportion with University	Public	0.19 (0.39)	0.18 (0.38)	0.20 (0.40)	0.20 (0.40)	0.30 (0.46)
	Private	0.06 (0.23)	0.07 (0.25)	0.07 (0.25)	0.07 (0.26)	0.10 (0.30)
Mean Experience	Public	17.96 (12.2)	17.78 (12.3)	17.85 (12.5)	17.61 (12.2)	17.86 (11.7)
	Private	15.37 (12.5)	15.11 (12.4)	14.75 (12.3)	14.62 (12.1)	15.00 (11.9)
Proportion Male	Public	0.69 (0.46)	0.68 (0.47)	0.66 (0.47)	0.64 (0.48)	0.63 (0.48)
	Private	0.71 (0.45)	0.71 (0.45)	0.71 (0.46)	0.70 (0.46)	0.71 (0.46)

Appendix A. The first prediction tested is that the *Pactos* led to public sector wages falling relative to private sector wages. A standard human capital model is used to determine the extent to which changes in the makeup of the public and private sector work forces account for changes in relative wages.⁸ Worker i 's wage is given by

$$(1) \ln(\text{Wage}_i) = \alpha_1 + \alpha_2 \text{Indiv}_i + \alpha_3 \text{City}_i + \varepsilon_i,$$

where $\ln(\text{Wage}_i)$ is the log of worker i 's hourly wage,⁹ *Indiv* is a vector of variables

⁸Between 1990 and 1994 several large public firms were privatized, with the banking, telecommunications, and airline sectors especially affected. Workers in these three sectors—about 300 in each quarter—have been removed from the sample. The results are not affected materially by removing workers in these sectors. Workers in privatized firms in other sectors cannot be identified in the sample; comparison of 1990 and 1994 government sector results should therefore be viewed with some caution.

⁹The survey asks for hours worked during the preceding week and earnings during the preceding pay period. The ENEU translates the earnings into monthly earnings. The hourly wage used here is calculated as (earnings*12)/(hours*52). There is some potential for bias in the hourly wage calculation, since the time periods do not always coincide (though 70% of workers identify the preceding week as the pay period), and because pay or hours during the preceding week may be greater or less than normal. But the 1994 survey reports "normal weekly hours" as well as actual hours the preceding week; the two are the same in more than 90% of the cases, and the regression results are essentially identical using the normal hours in place of actual hours. Moreover,

Table 3. Government Sector Wage Premium—Wage Workers.

Description	1987	1988	1989	1990	1994
Raw Government Sector Premium	0.25	0.22	0.15	0.12	0.37
Unexplained Premium (Private Sector Characteristics)	0.08	0.03	-0.03	-0.01	0.08
Unexplained Premium (Government Sector Character)	0.04	0.03	-0.06	-0.08	0.04
No. Observations—Private	11,959	12,397	13,003	13,346	13,374
No. Observations—Public	2,514	2,448	2,567	2,574	2,286

representing personal characteristics of the individual including schooling, experience, marital status, and household status, *City* is a vector of city location dummies, and $\varepsilon \sim N(0, \sigma^2)$. Since returns to schooling and experience may differ in the public and private sectors, a separate equation is estimated for each sector.¹⁰ The adjusted wage gap then is estimated in a standard way using the mean characteristics of workers in either sector.¹¹

Table 2 shows the means of the dependent and independent variables used in the regressions. While Table 1 indicates that real minimum wages fell throughout the 1987–94 period, the data in Table 2 show

that real wages of both public and private sector workers increased during the period, with the biggest increase after 1990. The extremely rapid rate of inflation during 1987 is reason to be cautious in interpreting the path of real wages over the period covered in Table 2; nevertheless, the data suggest the wage drift seen in Table 1 is also evident in the survey data used here. Throughout the period, public sector wages are higher than private sector wages. The normal “human capital” variables appear to explain at least a part of the differences in wage rates. Public sector workers had more schooling and were older than private sector workers.¹² Although public sector wages were always higher than private sector wages, the gap narrowed over the first four years. The difference in mean log wages fell from .25 in 1987 to .12 in 1990, representing a fall of 15% in public sector wages relative to private sector wages.¹³ The difference increased to .37 by 1994.¹⁴

while workers in small firms report longer hours and a greater variance in hours worked, the mean and variance of hours worked change very little across the years in the sample.

¹⁰The endogeneity of sectoral choice is ignored because the survey does not contain any obvious candidates for identifying a selection model. In the absence of a well developed sector selection model, there is reason to suspect the results of selection models (see Lewis 1986).

¹¹Using average government sector characteristics, the decomposition can be written as

$$\overline{\ln w_g} - \overline{\ln w_p} = \bar{X}_g \beta_g - \bar{X}_p \beta_p = (\bar{X}_g - \bar{X}_p) \beta_p - \bar{X}_g (\beta_p - \beta_g),$$

where p denotes the private sector, g the public sector, and \bar{X} the vector of exogenous variables. The left-hand side represents the differences in log wages between sectors. The right-hand side decomposes the differences into those explained by differences in the mean characteristics of workers (the first term) and an “unexplained” premium for government sector workers (the second term). A similar equation can be written using average private sector characteristics.

¹²The experience variable is calculated as age minus years of schooling minus six.

¹³The lower wages are not offset by higher levels of major worker benefits. Although public sector workers are more likely to have health benefits (92% for government workers vs. 74% for private sector workers) and to receive the standard annual bonus payment (94% for government workers vs. 72% for private sector workers), the percentage of workers receiving these benefits changes little over the four years.

¹⁴The number of government sector workers fell by about 11% between 1990 and 1994, largely as a result of the privatization program discussed above. But privatization does not appear to explain the

Table 4. Change in the Size-Wage Effect during the *Pacto* Period: Private Sector Wage Workers. (Standard Errors in Parentheses)

<i>Firm Size</i>	1987	1988	1989	1990	1994
1-5	—	—	—	—	—
6-15	0.11*** (0.012)	0.10*** (0.013)	0.08*** (0.013)	0.10*** (0.014)	0.13*** (0.015)
16-50	0.17*** (0.013)	0.14*** (0.013)	0.13*** (0.015)	0.13*** (0.015)	0.17*** (0.016)
51-250	0.19*** (0.013)	0.14*** (0.014)	0.10*** (0.014)	0.11*** (0.015)	0.19*** (0.016)
251+	0.24*** (0.012)	0.15*** (0.013)	0.13*** (0.014)	0.11*** (0.014)	0.21*** (0.015)
No. Observations	11,959	12,397	13,003	13,346	13,374
R ²	0.38	0.36	0.34	0.36	0.43

Notes: Regressions also include variables for years of schooling, schooling interacted with high school and university complete, experience (age minus education minus 6) and its square, indicators of male, married, and household head, location dummies (3), and two-digit industry dummies (61).

***Statistically significant at the .01 level (two-tailed tests).

Table 3 shows the public/private sectoral wage gaps decomposed into the portion explained and the portion unexplained by differences in observed worker characteristics.¹⁵ As was indicated by the raw data shown in Table 2, public sector workers earned a substantial wage premium throughout the period. The results of decomposing that premium, which are shown in Table 3, indicate that in 1987 only a part of the premium was due to differences in the measured characteristics of workers. Controlling for measured characteristics, public sector workers earned between 4% and 8% more than private sector workers with similar characteristics. By 1990, public sector workers earned between 1% and 8% less than similarly skilled private sector

workers. That is, over this four-year period, public sector wages fell relative to private sector wages by roughly 10%. By 1994, the unexplained wage premiums had returned to their 1987 levels.

Next I consider the changes in size-wage effect among private sector workers. The initial regressions are limited to wage workers. The survey reports firm size in a series of categories rather than as a continuous variable. By combining the category 6-10 with 11-15 and the category 51-100 with 101-250, I collapsed the seven ranges provided in the survey to five—firms with 1-5 workers, 6-15 workers, 16-50 workers, 51-250 workers, and more than 250 workers—from which five dummy variables were created. Changes in the coefficients of these dummy variables provide an indication of changes in the size-wage effect during the *Pacto* period. In addition to the firm size, education, experience, marital status, household status, and location variables, all of the private sector regressions reported in Table 4 include a series of dummy variables representing two-digit industry codes. The industry dummies are intended to pick up changes in demand for labor in given industries (which might be caused by trade liberalization, for example).

increase in the raw wage premium during this period. The data in Table 8 (below) suggest that blue-collar workers account for most of the decrease in public sector employment, while the increase in the raw wage premium is much more pronounced among white-collar workers.

¹⁵The regression results are available from the author. The regressions use data for both men and women, with a dummy variable indicating "male." Similar results are obtained when the sample is limited to only men or only women.

Table 5. Change in the Size-Wage Effect during the *Pacto* Period: Private Sector Wage Workers, with a Control for Workers Who Received Incentive Pay.
(Standard Errors in Parentheses)

<i>Firm Size</i>	1987	1988	1989	1990	1994
1-5	—	—	—	—	—
6-15	0.11*** (0.012)	0.11*** (0.012)	0.08*** (0.013)	0.10*** (0.014)	0.13*** (0.015)
16-50	0.18*** (0.013)	0.15*** (0.013)	0.14*** (0.015)	0.13*** (0.015)	0.17*** (0.016)
51-250	0.20*** (0.013)	0.16*** (0.014)	0.12*** (0.014)	0.11*** (0.015)	0.19*** (0.016)
251+	0.24*** (0.013)	0.17*** (0.013)	0.14*** (0.013)	0.13*** (0.014)	0.21*** (0.015)
Incentive Pay	0.15*** (0.012)	0.21*** (0.012)	0.24*** (0.014)	0.23*** (0.015)	0.08*** (0.015)
No. Observations	11,959	12,397	13,003	13,346	13,374
R ²	0.38	0.37	0.36	0.37	0.43

Notes: See notes to Table 4.

***Statistically significant at the .01 level (two-tailed tests).

In 1987, workers in firms with 6-15 employees earned 12% more than workers in the smallest firms (the base group for the regression), in an estimation that accounts for differences in education, experience, and so on. The wage premium over small-firm workers increased with firm size, reaching 27% (a difference in the log wage of .24) for workers in the largest firms. Without exception, the premium earned by workers in firms larger than five workers fell between 1987 and 1989. In a period of two years, the wage premium earned by workers in the largest firms (relative to workers in the smallest firms) fell from 27% to 14%.¹⁶ These changes were reversed to a

large extent by 1994, however, as the premium earned by workers in the largest firms increased to 23%.

Table 5 repeats the same regressions with a dummy variable for workers who receive incentive pay (piece rates, commissions, or tips). The incentive pay variable is included because incentive payments are likely to be harder for the *Pacto* committees to monitor than are fixed wages, and so we might expect additional drift among incentive pay workers, in the form of increasing earnings premiums.¹⁷ In fact, the premium earned by workers receiving incentive pay did increase from 16% in 1987 to 27% in 1989. By 1994, the incentive pay premium fell to 8%. The method of paying a worker is not exogenous; indeed, switching valued workers to incentive pay contracts is one way firms might get around the constraints imposed by the wage guidelines. Thus, the increase in the incentive pay premium between 1987 and

¹⁶Taken by itself, the compression of the size-wage effect would lower wage dispersion in the labor market, since workers in large firms are better paid. In fact, however, wage dispersion, measured as the highest and lowest decile or quartile's wage as a ratio of the median wage, increased significantly during the period. The increased dispersion results from the increase in returns to schooling and experience. It is difficult to determine whether the increase in dispersion was caused by firms' desire to get around the wage guidelines to retain older and better-schooled workers or, rather, by changing labor market conditions resulting from other economic liberalization measures.

¹⁷Brown (1976) made a similar point for the British case, noting that piece rate workers are particularly likely to experience "wage drift."

Table 6. Change in the Size-Wage Effect during the *Pacto* Period: All Private Sector Workers, Including Self-Employed Workers and Employers.
(Standard Errors in Parentheses)

<i>Firm Size</i>	1987	1988	1989	1990	1994
1-5	—	—	—	—	—
6-15	0.13*** (0.013)	0.14*** (0.014)	0.11*** (0.014)	0.13*** (0.015)	0.17*** (0.016)
16-50	0.20*** (0.015)	0.17*** (0.015)	0.16*** (0.016)	0.16*** (0.017)	0.22*** (0.017)
51-250	0.21*** (0.015)	0.17*** (0.016)	0.13*** (0.016)	0.14*** (0.017)	0.23*** (0.018)
251+	0.26*** (0.014)	0.18*** (0.014)	0.15*** (0.015)	0.15*** (0.016)	0.25*** (0.016)
Self-Employed	0.17*** (0.014)	0.20*** (0.015)	0.23*** (0.015)	0.20*** (0.016)	0.15*** (0.017)
Employer	0.39*** (0.016)	0.43*** (0.016)	0.48*** (0.017)	0.49*** (0.018)	0.42*** (0.018)
No. Observations	15,186	15,841	16,760	16,868	16,832
R ²	0.33	0.33	0.34	0.35	0.41

Notes: See notes to Table 4.

***Statistically significant at the .01 level (two-tailed tests).

1989 may have resulted partially from a selection effect.¹⁸

The regressions in Table 6 use a sample expanded to include self-employed workers and employers. Using the size variables, and including a dummy variable for self-employment and another for employers, allows the observation of the “self-employment premium.” As Table 6 shows, even after we take firm size into account, a self-employed worker earned more than his wage-earning counterpart. The self-employment premium increased from 19% in 1987 to 26% in 1989, and had fallen back to 16% by 1994. The premium for employers increased from 48% in 1987 to 62% in 1989, then fell to 52% by 1994. These findings are consistent with the others. Self-employed workers have no union affilia-

tion, have no written contracts, and are certainly the hardest group to monitor. Moreover, their “wages” would be expected to have the smallest impact on expectations, and hence be least important to those monitoring compliance.

The changes in relative wages would be expected to lead to movements of workers across sectors and firms. The education levels of workers in various sectors give some support to the idea that workers with more education were drawn to the sectors that fared better during the late 1980s. Table 2 shows that the mean education of government sector workers increased by 3.0% between 1987 and 1990, from 10.53 years to 10.85 years. During the same period, the mean education of private sector wage workers increased by 6.8%, from 8.06 years to 8.61 years. Education levels among self-employed private sector workers increased at an even faster rate of 14.2% during this period (from 6.56 years to 7.49 years). Finally, Table A-2 shows the education levels of private sector wage workers by firm size. While these data are, on the whole, less conclusive, the education level

¹⁸The data do not show an increased number of workers earning incentive pay overall, however. In 1987, 10% of wage workers earned incentive pay. This increased to 12% in 1988, but then fell back to 10% in 1989 and 9% in 1990.

Table 7. Written Contracts and Unionization Rates.

	% Written Contract, 1994		% Unionized, 1990 Guadalajara	
	Blue-Collar	White-Collar	Blue-Collar	White-Collar
Government	97%	99%	58%	55%
Private Sector Wage Workers:				
All wage workers	63%	86%	23%	22%
1-5 employees	16%	50%	7%	6%
6-15 employees	45%	72%	11%	10%
16-50 employees	71%	88%	24%	20%
51-250 employees	89%	94%	45%	24%
251+ employees	96%	97%	62%	35%

of workers in the smallest firms (1-5 workers) increased by 7.1% while that in the largest firms increased by 4.0%. Together, these data suggest that more skilled workers were drawn to those sectors whose wages increased during the period of large relative wage changes.

Some further insight into the wage-setting environment can be gained by repeating the analysis with workers divided into "white-collar" and "blue-collar" groups. Workers are classified using Mexico's occupational classification code. Professional workers, semi-professional workers, salesmen, supervisors, and clerical workers are classified as white-collar and skilled; unskilled and service workers are classified as blue-collar.¹⁹ Separate regressions are run for blue-collar workers and white-collar workers. The purpose of this exercise is not to estimate changes in the wages of blue-collar workers relative to the wages of white-collar workers. Rather, I am interested in seeing if the public/private wage differentials identified in Table 3 above hold equally for blue-collar and white-collar workers,

and similarly for the size-wage gradient identified in Table 4.

Enforcement of the *Pacto's* guidelines might be easier for some types of jobs than for others. For example, one way for employers to avoid detection is to use promotions. This is likely to be easier among white-collar workers, for whom jobs are less standardized and new job descriptions can be readily created. As a result, monitoring is more difficult among white-collar workers, and I expect to find that there was less size-wage compression among white-collar workers. There may also be differences in the cost to employers of losing specific white- and blue-collar workers. If so, then I would expect to find differences in the employers' willingness to risk penalties for exceeding the wage guidelines in order to retain workers. Here the direction of the effects is less clear.

There are other salient differences between blue- and white-collar workers as well. The data available from the 1994 survey indicate that among wage workers in the private sector, white-collar workers were more likely to have a written contract. As the data in Table 7 indicate, 63% of blue-collar workers in the private sector worked under a written contract, compared to 86% of white-collar workers. There were also differences in unionization of workers. Data on unionization are available only for 1990 and only for the city of Guadalajara. While caution is needed in extrapolating to other cities and years, these data suggest that overall, blue-collar workers were only

¹⁹The classification is similar to that used by Berman, Bound, and Griliches (1994). One difficulty is separating in the data production floor supervisors (which Berman et al. classified as blue-collar) from office supervisors (which they classified as white-collar). All supervisors are classified as white-collar here. The results reported below are not sensitive to this decision: classifying these workers as blue-collar instead has very little effect.

Table 8. Government Sector Wage Premium:
Separate Regressions for Blue-Collar and White-Collar Wage Workers.

<i>Description</i>	1987	1988	1989	1990	1994
Blue-Collar Workers					
Raw Government Sector Premium	0.13	0.08	0.04	0.05	0.16
Unexplained Premium (Private Sector Characteristics)	0.09	0.02	-0.01	0.04	0.11
Unexplained Premium (Government Sector Characteristics)	0.08	0.03	0.00	0.01	0.10
No. Observations—Private	8,405	8,600	8,930	9,008	8,688
No. Observations—Public	970	974	957	966	739
White-Collar Workers					
Raw Government Sector Premium	0.12	0.09	-0.02	-0.09	0.17
Unexplained Premium (Private Sector Characteristics)	0.02	-0.02	-0.13	-0.14	-0.01
Unexplained Premium (Government Sector Characteristics)	-0.02	-0.04	-0.17	-0.21	-0.09
No. Observations—Private	3,554	3,797	4,076	4,338	4,686
No. Observations—Public	1,544	1,474	1,610	1,608	1,548

slightly more likely than white-collar workers to be unionized in both the public and private sectors.²⁰ But this is largely because blue-collar workers were more likely to work in small firms; 43% of blue-collar workers were in firms with 15 or fewer workers, compared with 25% of white-collar workers. As Table 7 indicates, private-sector blue-collar workers were much more likely to be unionized, after we control for firm size. Both written contracts and unionization rates increase with firm size, and both increase more sharply for blue-collar workers than for white-collar workers. Given the role of the unions in implementing the agreements, and the focus on contractual wages, these data lead to the expectation that the compression will be similar for the two groups in the public sector but greater for blue-collar workers in the private sector.

Table 8 reports the raw and unexplained public sector wage premiums for blue-collar and white-collar workers, from regressions similar to those reported in Table 3. Somewhat surprisingly, in 1987 only blue-collar workers in the public sector earned more than their private sector counterparts—about 8% more, with controls for differences in characteristics. The 13% raw wage premium earned by white-collar workers is fully explained by differences in worker characteristics. Public sector workers in both groups fared relatively poorly over the next three years, but white-collar workers fared much worse than blue-collar workers. Public sector white-collar wages fell by almost 20% relative to private sector white-collar earnings, while public sector blue-collar wages fell by only 5–7% relative to private sector blue-collar earnings.

The story in the private sector is quite different, as the regression results in Table 9 indicate. The premium earned by workers in large firms fell much less for white-collar workers than for blue-collar workers. White-collar workers in firms with more than 250 workers earned 21% more than white-collar workers in firms with fewer than 5 workers in 1987, and 14% more in

²⁰Guadalajara's overall unionization rate of 23% for all workers is lower than the 30% rate for the country as a whole found for all workers by Panagides and Patrinos (1994) using the 1989 Income and Expenditure Survey.

Table 9. Change in the Size-Wage Effect during the *Pacto* Period:
Separate Regressions for Blue-Collar and White-Collar Private Sector Wage Workers.
(Standard Errors in Parentheses)

<i>Firm Size</i>	1987	1988	1989	1990	1994
Blue-Collar Workers					
1-5	—	—	—	—	—
6-15	0.11*** (0.012)	0.09*** (0.012)	0.06*** (0.013)	0.08*** (0.013)	0.11*** (0.014)
16-50	0.17*** (0.013)	0.11*** (0.014)	0.09*** (0.015)	0.08*** (0.015)	0.12*** (0.016)
51-250	0.15*** (0.014)	0.10*** (0.014)	0.07*** (0.015)	0.05** (0.015)	0.14*** (0.017)
251+	0.21*** (0.013)	0.12*** (0.013)	0.09*** (0.014)	0.06*** (0.014)	0.12*** (0.015)
No. Observations	8,405	8,600	8,926	9,007	8,688
R ²	0.24	0.23	0.21	0.23	0.20
White-Collar Workers					
1-5	—	—	—	—	—
6-15	0.06** (0.029)	0.11*** (0.033)	0.12*** (0.033)	0.12*** (0.037)	0.13*** (0.034)
16-50	0.12*** (0.030)	0.17*** (0.033)	0.19*** (0.034)	0.16*** (0.038)	0.16*** (0.035)
51-250	0.18*** (0.030)	0.18*** (0.033)	0.14*** (0.033)	0.13*** (0.038)	0.18*** (0.036)
251+	0.19*** (0.028)	0.17*** (0.030)	0.17*** (0.031)	0.13*** (0.036)	0.24*** (0.032)
No. Observations	3,554	3,797	4,077	4,338	4,686
R ²	0.42	0.38	0.39	0.38	0.45

Notes: See notes to Table 4.

Statistically significant at the .05 level; *at the .01 level (two-tailed tests).

1990. The size-wage compression was much more substantial for blue-collar workers, with workers in the largest firms seeing their wage premiums over workers in the smallest firms fall from 23% to just 6% by 1990. The premiums had grown again by 1994, though for blue-collar workers the wage premium remained lower in 1994 than in 1987.

Unreported results from separate regressions for each of the eight occupation subgroups indicate that all of the subgroups of blue-collar workers—unskilled, skilled, and service workers—saw substantial wage compression between 1987 and 1990. Service workers and unskilled workers experienced somewhat larger size-wage compression than skilled workers, and the size-wage pre-

mium disappeared completely by 1990 for service workers. Among workers grouped as white-collar, the wage premium earned by professional workers in large firms increased between 1987 and 1990, while there was a statistically significant decline in the premium for supervisors. The size-wage gaps for other white-collar workers remained relatively steady. This raises the possibility that professional workers alone account for the difference between white- and blue-collar workers shown in Table 9. When these workers are excluded from the white-collar group, the fall in the relative wages of workers in the largest firms does increase, but only from 7% to 10%. Hence, even when professional workers are excluded, there is less compression among

white-collar workers than among blue-collar workers.²¹

The rate of increase in the minimum wage was given a central role in controlling overall inflation through the *Pacto* process (*Comercio Exterior* 1987:1078). The ambitious inflation targets reflected in the nominal wage increases led to a sharp fall in the real minimum wage between 1987 and 1990 (Table 1). But the lowest-paid workers in Mexico did not fare as badly as the minimum wage data indicate. The number of full-time workers earning the weekly minimum wage or less fell from 20% in 1987 to 5% in 1990. More broadly, the relative wage patterns identified here indicate that the lowest-paid members of the work force—blue-collar workers in the smallest firms—were protected somewhat from the effects of changes in economic policies. Whether this was intentional or not on the part of the *Pacto* committee is difficult to say, but it may have helped to dampen opposition to the reforms. Opposition may also have been stemmed through the timing of the adjustment in the public sector.

Alternative Explanations

The *Pactos* were only one element of a broader program of economic reform Mexico implemented beginning in the mid-1980s. In a period of rapid transition of economic policy, how can we be certain the incomes policies are the most plausible explanation of the rapid changes in relative wage patterns? In their seminal article, Brown and Medoff (1989) explored six explanations of the size-wage effect using data from the United States: differences in worker quality; differences in working conditions; effects of unionization; rent-sharing; differences in the size of applicant pools; and differences in monitoring costs. Perhaps a change in one of these factors was a cause of the change in the size-wage

profile among blue-collar workers in Mexico.

The speed with which the size premium was reduced is reason to discard several of the potential explanations. Working conditions, the ability to monitor workers, and the size of the applicant pools could not plausibly have changed so quickly. Although there does appear to be some decline in the relative education level of workers in larger firms, it seems unlikely that a reduction in the quality of workers would explain relative wage changes of the magnitude identified. But the two remaining explanations—related to unions and rent-sharing—deserve more consideration.

A decrease in the unions' ability to capture rents results at least in part from the way in which the *Pactos* were implemented. Their participation in the agreements, and the government's incentive to focus enforcement efforts where they provided the biggest gains, mean that we should expect to see the union wage premium falling in the late 1980s. But there are two relevant questions. First, is the union effect enough to explain fully the observed wage patterns? And if the union wage premium fell, was this the result of a general loss of union power—perhaps caused by trade liberalization—or the result of union complicity with the *Pacto*?

Giving a precise answer to the union hypothesis is difficult because the labor survey does not include information on union affiliation. However, data from the 1990 Guadalajara survey suggest that some of the results are consistent with a decline in union power. Government workers were more likely to be unionized than private workers, and workers in large firms were more likely to be unionized than workers in small firms. Moreover, in the private sector, unionization rates increased with firm size more rapidly among blue-collar workers than among white-collar workers. However, workers earning incentive pay were as likely to be unionized as workers not earning incentive pay, and the premiums for incentive pay increased significantly between 1987 and 1990, then fell back by 1994.

²¹The inclusion of occupation codes in the regressions supporting Tables 4, 5, 6, 9, and 10 increases the wage compression among blue-collar workers slightly and does not change the compression among white-collar workers.

On the second question, there is some evidence that unions in Mexico were weakened by the economic crisis and reforms of the 1980s.²² But there has been no suggestion they had regained that power by 1994, whereas the incentive pay and self-employment effects had reversed themselves entirely by that time, and the wage differentials among blue-collar workers had at least partially reestablished themselves.

Alternatively, the changes in relative wages may have resulted from a decrease in the rents earned by large firms. In the late 1980s and early 1990s, Mexico implemented several other significant changes in policy that may have affected wage rates in the private sector. Most important, the government substantially dismantled trade barriers during the period, reducing the maximum tariff rate from 100% to 20%. Imports into Mexico doubled in dollar terms between 1987 and 1989. Feliciano (1994) and Robertson (1996) have examined changes in inter-industry wage differentials, and Revenga (1997) has examined changes in both employment and wages resulting from the changes in trade policy. Feenstra and Hanson (1994) have examined the effects of equally substantial changes in foreign investment laws and levels.

To the extent that rents are industry-specific, the effects of the trade liberalization are controlled for by inclusion of two-digit industry dummies in the regressions. Profit data are not available in the survey, so a direct test of changes in rents is not possible. The evidence reviewed by Brown and Medoff suggests that in the United States, at least, rents are industry-specific rather than size-specific (Brown and Medoff 1989:1046–47). Whether this is true in Mexico as well is unclear. Revenga (1997) provided some information on “quasi rents” per worker in Mexico using firm-level data for the 1984–90 period. She found that most of the variation in quasi rents was within rather than across industries, but

did not provide an indication of the correlation between rents and firm size. Interestingly, she found that the level of quasi rents was unaffected by changes in tariffs. While rents in her data do decline when quotas are removed, wages are unaffected by the removal of quotas. In any case, her data do not have direct implications here because the sample includes mostly large firms.²³

Moreover, when the sample is limited to the non-tradable sectors of the economy—construction, commerce, restaurants, transportation, and services—the pattern of relative wages is similar to that found in the whole sample. For workers in the largest firms, wage premiums fell by 20% for blue-collar workers and 8% for white-collar workers between 1987 and 1990, as shown in Table 10. The premium for large-firm workers grows again by 1994, with white-collar workers in large firms earning a greater premium in 1994 than in 1987. However, for blue-collar workers in the largest firms, the recovery is not complete. Their premium is lower in 1994 (13%) than it was in 1987 (22%). The more permanent effect among blue-collar workers may be the result of changes in the rents earned by firms or the pattern of labor demand brought about by trade liberalization (Revenga 1997).

Finally, overall economic conditions in Mexico may have affected relative wages during the period studied. In particular, the fall in public sector wages relative to private sector wages between 1987 and 1989 may have resulted from the slow economic growth during this period and from the government’s austerity program. But austerity continued in the early 1990s, and growth between 1990 and 1994 was not

²²See, for example, Middlebrook (1989).

²³Further, the proposition that rents explain the changing size-wage pattern then relies on trade liberalization having a greater impact on large firms than on small firms. Given that the regressions control for industry, it seems unlikely that large firms were affected to a greater extent than small firms by trade liberalization.

Table 10. Change in the Size-Wage Effect during the *Pacto* Period: Separate Regressions for Blue-Collar and White-Collar Private Sector Wage Workers in Non-Tradable Industries. (Standard Errors in Parentheses)

<i>Firm Size</i>	1987	1988	1989	1990	1994
Blue-Collar Workers					
1-5	—	—	—	—	—
6-15	0.12*** (0.015)	0.10*** (0.016)	0.08*** (0.017)	0.09*** (0.017)	0.13*** (0.017)
16-50	0.18*** (0.018)	0.11*** (0.019)	0.09*** (0.021)	0.09*** (0.021)	0.13*** (0.020)
51-250	0.16*** (0.020)	0.09*** (0.021)	0.10*** (0.023)	0.07*** (0.022)	0.16*** (0.023)
251+	0.20*** (0.021)	0.12*** (0.021)	0.11*** (0.022)	0.02 (0.022)	0.12*** (0.020)
No. Observations	4,252	4,293	4,309	4,365	4,717
R ²	0.22	0.24	0.21	0.22	0.22
White-Collar Workers					
1-5	—	—	—	—	—
6-15	0.07** (0.031)	0.13*** (0.034)	0.11** (0.035)	0.12*** (0.041)	0.13*** (0.037)
16-50	0.11*** (0.033)	0.19*** (0.035)	0.19*** (0.036)	0.18*** (0.043)	0.17*** (0.038)
51-250	0.18*** (0.034)	0.20*** (0.037)	0.16*** (0.037)	0.11*** (0.044)	0.17*** (0.041)
251+	0.16*** (0.031)	0.16*** (0.033)	0.11*** (0.033)	0.09*** (0.041)	0.21*** (0.036)
No. Observations	2,151	2,259	2,406	2,514	2,916
R ²	0.36	0.34	0.34	0.32	0.39

Notes: See notes to Table 4.

Statistically significant at the .05 level; *at the .01 level (two-tailed tests).

much higher than in the earlier period (see Table 1); yet the public/private differential returned to its 1987 level by 1994. Moreover, earnings of self-employed workers are generally found to be more sensitive to general economic conditions than are the earnings of wage workers.²⁴ If economic growth explains the changes in relative wages, we should find that the earnings of the self-employed fall relative to those of wage workers from 1987 to 1989, and rise in the later period. In fact, we find the opposite (Table 6). Thus, while overall eco-

nomical conditions may have had some effect on the relative wages, changes in growth do not appear to explain the patterns identified here.

Conclusion

The implementation of wage control guidelines in Mexico was part of a set of reforms responsible for reducing inflation from an annual rate of more than 150% in 1987 to 20% two years later. Previous research on the effect of incomes policies in the United States and Europe shows that enforcement of wage agreements is often imperfect, resulting in wage drift as wages increase at a rate faster than targeted. Micro level data were used here to analyze the

²⁴See, for example, Carrington et al. (1996).

process of wage drift at a more detailed level than in previous studies. The empirical results are consistent with the hypothesis that monitoring was more intensive in large firms than in smaller ones. During the first two years of implementation of the incomes policies, public sector workers saw their earnings fall by 10% relative to those of their private sector counterparts. Within the private sector, earnings of self-employed workers and earnings of workers receiving incentive pay increased by 10% relative to those of fixed wage workers.

Dividing the sample into white- and blue-collar workers reveals differences in the response of the government and private employers to the wage policies. In the private sector, blue-collar workers in large firms saw their wages fall by 17% relative to those of workers in the smallest firms following implementation of the *Pactos*. The changes in the size-wage profile of white-collar workers were much less extreme, with compression of only 7%.

While large firms in the private sector offered more protection to white-collar earnings than to blue-collar wages, the opposite was true in the public sector. On the public sector side, these results likely reflect the political voice of blue-collar workers. This behavior may be driven by the need to maintain political support for other economic reforms that were being implemented concurrently (Haggard and Kaufman 1992; Freeman 1992). On the private sector side, the protection of white-

collar earnings may reflect a greater concern of large private firms for retaining their white-collar workers. Alternatively, the private sector results may reflect a greater difficulty in enforcing wage controls among white-collar workers, for whom promotions can easily be used to circumvent the guidelines. Unfortunately, the inability to distinguish between these explanations disallows using the data to draw conclusions about the nature of the size-wage effect.

The simultaneous implementation by the Mexican government of a broad set of economic liberalization measures and an interventionist wage and price policy appears paradoxical. The first set of policies resulted in significant movement toward a market-based open economy. The *Pactos* resulted in new interventions in the wage markets, with large changes in the wage structure. But the latter policy may have actually complemented the liberalization program. The analysis here suggests that those workers who were closest to the market—that is, the self-employed, workers in small firms, and those receiving incentive pay—fared better in the adjustment process than those further from the market. Ironically, those closest to negotiation of the agreements—workers in large firms (who are more likely than those in small firms to have union representation) and public sector workers—fared the worst when the agreements were implemented.

**APPENDIX A
DESCRIPTION OF DATA**

The data are from the National Urban Employment Survey (ENEU) for the three largest urban areas in Mexico (Mexico City, Guadalajara, and Monterrey) and four cities along the Mexico-U.S. border (Matamoros, Nuevo Laredo, Juarez, and Tijuana). The ENEU is undertaken quarterly by the Instituto Nacional de Estadística Geografía e Informática and includes 5,100 households in Mexico City, 3,000 households in Guadalajara and Monterrey, and 2,100 households in each of the border cities. The survey includes information on hours and earnings as well as characteristics of workers and jobs. The surveys used here are those from the third quarter of each of the years 1987-90 and the third quarter of 1994. SAS was used for all data manipulations and regression runs.

The sample is limited to workers between the ages of 16 and 65 who work 35 or more hours per week. Unpaid family workers and those with missing values for education, firm size, or age are excluded. Domestic workers are also excluded, since they often receive unreported payment in kind. For the remaining workers, hourly wages (excluding benefits) are calculated as described in footnote 7 and deflated to 1987 pesos using the monthly Mexican Consumer Price Index.

Table A1 shows the percentage of surveyed workers in the public and private sector. Public sector

workers include administrative workers, those working for parastatal enterprises,²⁵ and teachers and medical workers employed in state schools and hospitals. Between 1987 and 1988 and again between 1990 and 1994 there is some drop in the proportion of government workers. The latter drop is likely the result of the government's privatization program. Though telecommunications and banking sector workers have been removed from the sample, workers in other privatized firms cannot be identified. Within the private sector, Table A1 shows the proportion of wage workers in firms of different sizes, and the proportion who are self-employed or owners of businesses.

Table A2 shows the means by firm size group of the dependent and some of the independent variables used in the regressions described in Table 4 for private sector wage workers. The raw data show that large firm workers have higher wages, but also have higher levels of schooling.

²⁵Parastatal firms include those controlled by the government, even where ownership is less than 100%. Thus, workers for a telephone monopoly (Telmex) are considered public sector workers since during this time period the Mexican government owned 51% of the stock of the company, a controlling share.

APPENDIX TABLE A1

WORKERS BY CATEGORY

<i>Group</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1994</i>
Government	14.2%	13.4%	13.3%	13.2%	12.0%
Private Wage Workers	67.6%	67.8%	67.3%	68.7%	69.9%
<i>Wage Workers in:</i>					
Firms with 1-5 Workers	14.5%	14.3%	13.8%	12.7%	14.1%
Firms with 6-15 Workers	11.6%	10.7%	10.6%	11.1%	11.4%
Firms with 16-50 Workers	9.0%	9.3%	8.1%	8.8%	9.5%
Firms with 51-250 Workers	10.1%	9.2%	9.7%	10.0%	9.4%
Firms with 251+ Workers	22.3%	24.2%	25.0%	26.0%	25.6%
Owners of Firms	7.1%	10.9%	12.2%	7.3%	9.5%

APPENDIX TABLE A2
CHARACTERISTICS OF WAGE WORKERS BY SECTOR
(STANDARD ERRORS IN PARENTHESES)

<i>Category</i>	<i>Firm Size</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1994</i>
Mean Real Hourly Wage (1987 Pesos)	1-5	726 (433)	763 (497)	856 (599)	875 (1,701)	867 (787)
	6-15	840 (496)	871 (548)	1,006 (756)	1,028 (1,786)	1,123 (1,019)
	16-50	934 (592)	995 (730)	1,154 (1,970)	1,162 (1,227)	1,314 (1,499)
	51-250	977 (662)	1,057 (1,035)	1,119 (1,007)	1,155 (1,226)	1,441 (1,798)
	251+	1,066 (707)	1,066 (942)	1,180 (1,154)	1,191 (1,260)	1,477 (2,079)
Mean Log Hourly Wage (1987 Pesos)	1-5	6.48 (0.45)	6.52 (0.47)	6.62 (0.48)	6.60 (0.50)	6.61 (0.52)
	6-15	6.63 (0.43)	6.65 (0.46)	6.75 (0.53)	6.73 (0.55)	6.82 (0.59)
	16-50	6.71 (0.48)	6.74 (0.52)	6.82 (0.57)	6.83 (0.60)	6.93 (0.63)
	51-250	6.75 (0.46)	6.77 (0.54)	6.82 (0.57)	6.81 (0.62)	6.97 (0.68)
	251+	6.84 (0.47)	6.80 (0.52)	6.87 (0.55)	6.85 (0.60)	6.97 (0.70)
Mean Years of Education	1-5	7.06 (3.60)	7.26 (3.52)	7.50 (3.58)	7.56 (3.54)	8.07 (3.63)
	6-15	7.73 (3.90)	7.75 (3.86)	8.11 (3.82)	8.11 (3.82)	8.51 (4.00)
	16-50	8.03 (4.07)	8.36 (4.01)	8.26 (4.00)	8.70 (4.06)	9.06 (4.07)
	51-250	8.22 (3.90)	8.73 (4.01)	8.80 (4.04)	9.00 (3.98)	9.33 (4.07)
	251+	8.82 (3.77)	8.95 (3.71)	9.10 (3.66)	9.17 (3.76)	9.60 (3.72)
Proportion with High School	1-5	0.13 (0.33)	0.13 (0.34)	0.15 (0.36)	0.15 (0.36)	0.20 (0.40)
	6-15	0.20 (0.40)	0.19 (0.39)	0.21 (0.41)	0.22 (0.41)	0.26 (0.44)

Continued

APPENDIX TABLE A2

<i>Category</i>	<i>Firm Size</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1994</i>	
Proportion with University	16-50	0.22 (0.42)	0.24 (0.43)	0.24 (0.43)	0.28 (0.45)	0.32 (0.47)	
	51-250	0.23 (0.42)	0.26 (0.44)	0.27 (0.45)	0.28 (0.45)	0.34 (0.47)	
	251+	0.25 (0.43)	0.26 (0.44)	0.27 (0.45)	0.29 (0.45)	0.32 (0.47)	
	1-5	0.02 (0.15)	0.02 (0.15)	0.03 (0.17)	0.03 (0.17)	0.04 (0.19)	
	6-15	0.05 (0.21)	0.05 (0.22)	0.05 (0.22)	0.05 (0.21)	0.09 (0.28)	
	16-50	0.06 (0.24)	0.08 (0.27)	0.06 (0.24)	0.09 (0.29)	0.11 (0.32)	
	51-250	0.07 (0.25)	0.09 (0.28)	0.09 (0.28)	0.09 (0.29)	0.13 (0.33)	
	251+	0.08 (0.27)	0.09 (0.28)	0.09 (0.28)	0.10 (0.29)	0.13 (0.33)	
	1-5	15.91 (13.3)	15.80 (13.1)	15.52 (13.1)	15.45 (12.9)	15.28 (12.4)	
	6-15	17.07 (13.5)	16.59 (13.3)	16.07 (13.0)	15.78 (12.9)	16.04 (12.8)	
Mean Expenence	16-50	16.26 (12.7)	16.21 (13.1)	16.51 (13.6)	15.50 (12.5)	16.21 (12.9)	
	51-250	15.53 (12.5)	15.41 (12.5)	15.51 (12.6)	15.20 (12.4)	16.09 (12.3)	
	251+	13.69 (11.2)	13.51 (11.0)	12.90 (10.5)	13.21 (11.0)	13.54 (10.5)	
	1-5	0.30 (0.46)	0.33 (0.47)	0.31 (0.46)	0.29 (0.45)	0.27 (0.44)	
	6-15	0.66 (0.48)	0.64 (0.48)	0.64 (0.48)	0.66 (0.47)	0.61 (0.49)	
	16-50	0.81 (0.39)	0.83 (0.37)	0.81 (0.39)	0.83 (0.38)	0.82 (0.39)	
	51-250	0.89 (0.31)	0.91 (0.28)	0.88 (0.32)	0.89 (0.32)	0.89 (0.31)	
	251+	0.95 (0.22)	0.96 (0.19)	0.95 (0.22)	0.95 (0.21)	0.94 (0.23)	
	Proportion with Health Insurance	1-5	0.30 (0.46)	0.33 (0.47)	0.31 (0.46)	0.29 (0.45)	0.27 (0.44)
		6-15	0.66 (0.48)	0.64 (0.48)	0.64 (0.48)	0.66 (0.47)	0.61 (0.49)
16-50		0.81 (0.39)	0.83 (0.37)	0.81 (0.39)	0.83 (0.38)	0.82 (0.39)	
51-250		0.89 (0.31)	0.91 (0.28)	0.88 (0.32)	0.89 (0.32)	0.89 (0.31)	
251+		0.95 (0.22)	0.96 (0.19)	0.95 (0.22)	0.95 (0.21)	0.94 (0.23)	

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