

Economic and Social Consequences of State Labor Costs Trends, 1970-2000

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Abstract: A updated measure of trends in state labor costs (based on union membership, manufacturing wages, right-to-work laws, unemployment benefits, and workmen's compensation) showed a sharp decline in those costs between 1970 and 2000. This paper uses a pooled time-series, cross-sectional analysis to consider the economic and social consequences of these labor cost trends for the American states. The economic factors include trends in productivity, employment, gross state product, exports, and foreign direct investment. Social factors include trends in personal income, poverty rates, crime rates, and voter turnout. The results suggest that reducing state labor costs does reduce employment, but higher labor costs may improve growth in personal income, gross state product, and exports. However, declining labor costs are associated with slower declines in poverty rates, slower growth in personal income, declining voting turnout, and higher crime rates.

A standard neoliberal argument in economic theory holds that as the cost of labor increases (because of rising wages, unionization, or the “social wage” due to payroll taxes or health-care costs), fewer workers will be hired, unemployment will rise, and businesses will relocate to low-wage regions (Vedder and Gallaway 1993; Casson 1983). According to OECD (2000), real wages increased considerably in the European Union and Japan between 1970 and 1995, while they remained almost unchanged in the U. S. But over the same time period the U. S. experienced far more rapid employment growth than either Japan or the countries of the European Union. However, the impact labor costs on economic growth remains a hotly debated issue within economics and political science, and empirical estimates of the actual impact of labor costs have reached divergent conclusions (Hirsch, 1997, provides a overview of this literature).

Labor costs are a major political issue as well. European welfare states such as Germany have come under strong pressure to reduce the “social wage” in order to compete more effectively with the Eastern European countries now entering the European Union (Bernstein 2003). In theory, as capital becomes more and more mobile in an increasingly global economy, advanced industrial countries will be constrained to reduce labor costs in order to keep jobs and capital from flowing to low-wage third-world countries (Rifkin 1995; Tonelson 2002). As Levi (2003: 51) states, “The movement of jobs to locations with low-wage and nonunionized workers, and the consequent race to the bottom, is worldwide.”

In practice, however, countries differ considerably in their responses to the global economy (Swank 2002; Iverson 1998; Katz and Darbishire 1999; Wallerstein and Western 2001; Cohen 2001). As Wilensky (2002) concludes, in liberal market economies (the U. S. and the U. K.) workers bear far more of the brunt of low-wage competition than in more corporatist European countries, where political and social institutions mediate the effects. Porter (1985) argues that advanced industrial economies have a competitive edge in the international economy; low-wage, low-skill jobs may indeed move elsewhere, but gains in productivity and technology should be compensated with high wages and rising living standards. Volgy, Schwarz, and Imwalle (1996) found that countries where workers had greater power were able to maintain wages despite ties to the international economy, but weak-labor countries failed to reap wage gains commensurate with productivity increases.

The American states provide an ideal laboratory to test these competing findings. In this paper, I use a pooled cross-section time-series analysis to examine trends in state labor costs and to assess their economic and social impact. I consider a range of economic outcomes (growth in GSP, personal income, productivity, exports, and foreign investment) in addition to employment trends. The results challenge the theory that cutting the cost of labor will enhance competitiveness; states with high labor costs are in fact doing better with respect to economic growth, exports and foreign direct investment. The strong links among high labor costs, productivity growth, and defense spending provide a competitive advantage in the increasingly specialized global economy. While

higher labor costs do increase unemployment, reducing labor costs has adverse social consequences: slower declines in poverty rates and personal income, rising inequality, lower voter turnout, and perhaps declines in social capital as well.

This paper will first review previous research on the economic impact of state labor costs, and on that basis generate several hypotheses to predict the impact of labor cost trends on different aspects of economic and social trends in the American states. I then describe measures of state and national labor costs and trends in these costs, 1970-2000. The third section discusses the measures and methods to be used to test the hypotheses. I then present the results and consider alternative interpretations of the social and economic impact of trends in labor costs.

I. The economic and social impact of state labor costs

In the U. S. the federal government collects payroll taxes for Social Security, but other policies affecting the social cost of labor (unemployment insurance, workers' compensation, union regulation, minimum-wage laws, workplace safety) are affected by state as well as federal policies, and vary considerably across the states. The federal minimum wage adopted during the New Deal represented an effort to raise Southern wages and improve living conditions in the South (Paulson 1996). This was strongly resisted by low-wage states, which felt they would lose an important comparative advantage. The Taft-Hartley Act of 1947 permitted states to adopt right-to-work laws (as 22 states have done to date). Several eastern and midwestern states, however, have a long history of efforts to improve workplace conditions and job security. Populists and Progressives advocated policies designed to enhance union strength, invest in human capital, limit child labor, and protect workers' health, pensions, organizing rights, and job security. Many states have also adopted minimum wages above the federal minimum. By contrast, most southern states have been hostile to unions and have kept employee and welfare benefits low in order to give employers more control over the labor force (Mettler 1998). Personal income in the South did rise relative to the rest of the country, particularly after the New Deal. But considerable wage differences still remain between North and South.

Instead of national policies, on the New Deal model, to raise southern wages and limit low-wage competition, in recent years we see efforts by states to enhance their international or regional "competitiveness" by keeping the lid on labor costs (what Cummings, 1998, has termed the "Dixification" of America). Since the 1980s many of the states have reduced workmen's compensation, restricted eligibility for unemployment benefits, and limited strikes by public employees. States have also used measures such as hiring migrant workers, prison labor, or bans on secondary boycotts to inhibit union organizing efforts and keep wages down (Hansen 2001). Biennial editions of the *Book of the States* have documented these ongoing legislative and regulatory trends (see also Arnberg 2003).

Thus some states (especially in the South) are quite close to the liberal-market economy norms attributed by Swank and Wilensky to the U. K. and to U. S. as a whole. But other states have historically supported organized labor, required higher minimum wages, and provided much more generous benefits for unemployment and workers' compensation. Their union density is closer to the "strong worker power" states as identified by Volgy, Sahwarz, and Imwalle (1996). The American states thus provide an ideal laboratory for examining the economic and social effects of labor costs. Previous research on interstate competition for jobs and investment has stressed the role of taxes and business incentives (Eisinger 1988; Peterson 1995; Brace 1993). But the cost of labor as a major factor of production is a far more salient element in business investment and location decisions than either state taxes or state/local incentives (Bartik 1985).

Most economists and owners of business argue that high unemployment and slow economic growth are the likely consequences of any efforts to raise wages above market rates. Vedder (19) argues that unemployment would disappear if labor unions, minimum-wage laws, and welfare policies were abolished. Labor unions are depicted as "rent-seeking" organizations interfering with managerial prerogatives and slowing productivity. Bartik (1985) found that branch-plant location decisions were strongly affected by labor union density in the states, while state taxes played a much smaller role. Recently Pantuosco et al. (2001) analyzed the economic impact of unions using data on 48 states, 1978-1994. They found that unions adversely affected unemployment, growth in GSP, productivity, and population growth, but had no significant impact on employment growth..They noted that while higher union wages might attract workers, the higher unemployment rates associated with higher union density could increase labor migration out of the state. On the other hand, Belman (1992) and Wilson (1995) argue that unionized labor is more stable and productive, in part because management is motivated to enhance efficiency. And Partridge and Rickman (1995) found that unionization was not significantly related to state unemployment rates.

Since the Taft-Hartley law of 1947, right-to-work laws have permitted states to outlaw union shops. Workers in such states need not join a union (or pay union dues) even if a union wins the right to organize the workplace, which of course encourages free riding and weakens union clout. Several earlier studies of the American states found that higher growth rates in some states (particularly the South) were based in part on right-to-work laws, and weak unions (Dye, 1984; Hansen, 1984; Plaut and Pluta 1983). And Reed (2003) even argues that, if one controls for the cost of living, workers in right-to-work states earn more rather than less than those in union-shop states.

Minimum-wage laws at both state and federal levels have likewise come under attack for increasing unemployment (although recent studies have disputed this relationship: see Levin-Waldman 2001 for a summary of the research). Employers also challenge any impediments to the doctrine of employment at will, which gives most American employers *carte blanche* to hire and

fire (Stieber 1984). Shaughnessey (2003) finds that even state laws that forbid employers from firing workers because of public-policy exceptions (jury duty, National Guard service, protection for whistle-blowers) impose a “wage premium” and thus higher unemployment in such states.

However, previous research on state labor costs has been limited in several respects. First of all, since different states and time periods have been covered, it is difficult to determine whether the relationship between state labor costs and economic outcomes has changed over time or relative to national policy trends. Second, while it is certainly plausible that labor costs might have divergent effects on different economic outcomes, different dependent variables have been used in different studies (branch plant locations, trends in personal income or GSP, unemployment) so that it has seldom been possible to compare effects; Pantuosco et al.’s (2001) recent work, using simultaneous equations to track relationships among economic outcomes, is a notable exception.

Third, since 1970 the American economy has become much more closely integrated with world economic trends. The value of foreign direct investment has soared, as has the value of manufacturing exports and the number of jobs linked to exports. In theory, the increasing global mobility of capital should pressure countries (and states) to reduce their tax rates, minimize regulatory burdens on business, and constrain labor costs (both wages and the “social cost” of labor such as payroll taxes and unemployment benefits). But previous studies have not established whether global trends have put even greater pressure on state labor costs over time, or whether the states most open to the international economy have been the most constrained to reduce labor costs. As Swank (2000), Wilensky (2002), Cohen (2001), and others have found, national political and economic institutions mediate the response of industrial countries to globalization.

Fourth, how should labor costs be measured? No single indicator is ideal, particularly since different economic sectors may be sensitive to different cost factors. Time-series data for states are available only for manufacturing wages, although this sector has been shrinking. Union density and other aspects of labor regulation vary within as well as between right-to-work and union-shop states (Arnberg 2003). And the usual indicator of union density (percent of workers who are union members) may not reflect the actual influence of organized labor in state politics. The U. S. Bureau of Labor Statistics calculates an “Economic costs index” which includes several factors (wages and salaries, Social Security taxes, health insurance, retirement plans, unemployment insurance). BLS reports quarterly trends in this index by region, economic sector, and for union vs. non-union employees, but unfortunately not for individual states.

Finally, do state economies respond to levels or trends in labor costs? Or do business investment or location decisions reflect broader dimensions of state economies, such as taxes or the supply of skilled labor? State business interests lobby vigorously for reductions in state labor costs, but policy-makers need to know whether a state policy change (adopting a right-to-work law, raising

the minimum wage) will produce identifiable short-or long-term changes (for better or worse) in economic indicators.

This analysis will attempt to address these problems in several respects. First, all 50 states will be analyzed over a long time period (1970-2000). Second, several different economic outcomes (trends in Gross State Product, productivity, personal income, unemployment, and job creation) will be compared. Third, measures will be included (value of state exports and foreign direct investment) to assess a state's exposure to the global economy. Fourth, a comprehensive index of state labor costs has been developed, analogous to the BLS Economic Costs Index, to assess the combined impact of wages and benefits. And finally, both levels and changes in state labor costs can be considered, based on the comprehensive index. Controls will also be introduced for national policies affecting labor costs (minimum wage laws, Social Security payroll taxes) so as to isolate the impact of state policy changes.

II. Measuring state and federal labor costs

In the U. S., unlike more centralized European governments, unemployment and workmen's compensation eligibility and benefits are determined to a considerable degree by state law, and thus vary widely across the states (Wise 1989). The 1947 Taft-Hartley Act permitted states to enact right-to-work laws, as 22 states have done to date, and thus revitalized interstate competition over labor costs (Lee 1966). Although the U. S. has had a federal minimum wage since 1938, many states have set wages for at least some workers either higher or lower than the federal minimum. States also regulate union activities, organizing by public employees, exceptions to employers' freedom to hire and fire at will, strikes, and demands for right-to-know laws concerning hazards in the workplace. Biennial editions of the *Book of the States* have documented these ongoing legislative and regulatory trends (see also Amberg 2003).

In a recent article (Hansen 2001) I argued that the persistent low level of labor costs in the U. S. was due not just to globalization, but to competition among the American states for jobs and business investment. I developed a measure of labor costs for the American states, 1970 - 1995, using factor scores based on unemployment rates, whether a state had a right-to-work law, unemployment compensation, workmen's compensation benefits, and percent union members in the labor force. I have updated this measures of labor costs to cover all 50 states between 1970 and 2000. All five indicators again loaded on the first (unrotated) factor, accounting for 48 percent of the variance, and these factor loadings were used to construct a "labor costs" score for each state for each year, 1970-2000. This measure had considerable face validity, since the highest-scoring states (New York, Michigan, Pennsylvania) clearly differ from low-scoring states such as the Carolinas.

Table 1 shows factor scores for labor costs by state in 1970 and 2000, and the percent change

between those dates. States are ranked according to their labor costs as of 1970. The range is quite striking, with the heavily unionized Northeastern manufacturing states at the top and the non-union Southern and Western states at the bottom. There are a few surprises: despite its poverty, West Virginia ranks relatively high in labor costs, as does Alabama; both have higher levels of union membership than most Southern states. And Vermont, despite higher levels of taxes and social services, ranks only a little above New Hampshire in the bottom quartile (which is otherwise dominated by right-to-work states).

The trend in labor costs based on these factor scores showed a decline of over 25 percent between 1970 and 2000 (Figure 1). The high-labor-costs states decreased theirs the most (averaging over 30 percent), but the low-labor-cost states also reduced their costs. In an environment where states must compete to attract business, we might also expect greater convergence over time among the states. That is indeed the case for both manufacturing wages and overall labor costs: variability (indicated by the coefficient of concordance, W , the standard deviation divided by the mean) decreased slightly between 1970 and 2000. I found no convergence over time in workmen's compensation benefits, since medical costs remain much higher in urban areas of the Northeast and on the West Coast. Thus Table 1 shows considerable variation in the percent change in labor costs between 1970 and 2000, ranging from a 43 percent decline in West Virginia to a 7 percent increase in one of the lowest-wage states, North Carolina.

Before considering the relationship between state labor costs and economic and social outcomes, we must assess the impact of federal labor policies on the overall trend. As Hendrick and Garand (1991) have argued, state economic trends should not be analyzed only in terms of factors endogenous to the states, and the American states share responsibility for regulating the cost of labor with the federal government.

I have considered three indicators of national trends in labor costs. The first is the federal minimum wage, which has declined in constant (2000) dollars from \$7.10 in 1970 to \$5.15 in 2000. Second is the size of the payroll tax for Social Security, which increased from 4.80 percent in 1970 to 7.65 percent in 2000. I also used dummy variables for Presidential administrations (1 for Democrats, 2 for Republicans), since party and ideological differences between administrations can influence appointments to the National Labor Relations Board, the Cabinet, and the enforcement of labor regulations, as President Reagan's breaking of the air traffic controllers' strike in 1981 clearly demonstrated (Nordlund 1997). On average, overall labor costs increased by .25 percent per year under Democratic administrations, and declined 1.0 percent per year under Republican presidents.

I regressed the factor scores for state labor costs, 1970-2000, on these three indicators, plus a variable for Year to pick up any other (unmeasured) national trends. All but Year proved to be statistically significant (Table 2), but together accounted for only about 10 percent of the variance.

And to a considerable degree, tax increases, minimum-wage declines, and Presidential administrations have tended to cancel each other out over time. These results suggest that state labor costs are only marginally related to federal trends. Further, these changes at the national level cannot explain the considerable variation in labor costs we observe across the 50 states (see Hansen 2003 for an analysis of state factors influencing levels and trends in labor costs).

III. Hypotheses

What, then, are the likely economic consequences of trends in state labor costs? One would expect to find higher unemployment and slower rates of job growth in high-wage states or countries; this is certainly the consensus of the literature reviewed by Hirsch (1997). However, in many instances the effect is quite modest. But how much of any increase in unemployment is directly attributable to higher wages or the presence of unions, rather than to higher taxes, higher energy costs, or some other factor? As Wilson (1995) notes, business opposition to unions is often based on the limitations they may impose on management prerogatives, rather than to cost factors.

However, high wages and high levels of union density may also function as a spur to productivity, and may encourage in-migration (Simon 1999). Innovative high-technology industries demand a well-educated labor force, and may have to pay a wage premium to attract skilled workers. High labor costs in the states may thus be associated with faster rates of growth in personal income, GSP and population.

What about the impact of the global economy? One might expect greater cuts in labor costs in states most closely linked to international trade and thus facing greater competitive pressures. Fox and Lee (1996) found that foreign direct investment, 1985-1990, was indeed higher where wages and unemployment were lower, but noted no consistent effects for right-to-work laws. However, they also found strong agglomeration effects, with foreign firms locating in proximity to other foreign firm and in states with well-developed infrastructure. Thus states such as New York, New Jersey, and California attracted sizeable foreign investment despite high wages and taxes. And Friedman (1992) found a significant positive relationship between labor force productivity and state FDI, 1977-1988. However, weak unions and lower wages helped attract Japanese and German automobile manufacturers to states like Kentucky and Alabama (Yanarella and Green 1990).

Previous research on the impact of exports is likewise mixed. Kletzer (2002) found that some manufacturing industries (particularly apparel) experienced loss of jobs and declining wages due to imports. But for the U. S. economy as a whole, exports (of both goods and services) contributed to a growth in jobs. As Porter (1985) has argued, the U. S. comparative advantage in exports lies in high-technology and high-value-added goods like aircraft and computers. Low-

wage states in the U. S. have been losing jobs to even lower-wage third-world countries. Thus even substantial cuts in state wages, workmen's compensation or unemployment benefits would not make American factories competitive with those in China or Sri Lanka. We should therefore test for both relationships: are cuts in state labor costs reflected in increased exports? Or are states with high labor costs gaining export share because the competitive advantage of productivity?

In addition to the effects of labor costs on employment and other indicators of state economies, we should also consider the social impact. The "low road" to economic development, based on low wages and high levels of job insecurity, has been criticized by many for its adverse social consequences (Levin-Waldman 2001; Krugman 1998). Personal income is likely to grow more slowly in states where wages and other labor costs are low. Population loss may occur as well as people relocate to higher-paying regions. Another possible outcome is greater poverty. As of 2003, even working full-time, year-round at the minimum wage was not enough to lift one above the federal poverty line - and Congress has not raised the minimum wage since 1997.

Lower voter turnout is another possible consequences of declining incomes. Poor people are less likely to vote, in part due to lack of the personal and social resources that encourage political involvement (Verba, Schlozman, and Brady 1995). People who must work overtime or hold two jobs in order to make ends meet will have less time for political activism. Also, the chronic housing problems of low-income workers result in frequent moves and thus difficulties with maintaining voter registration (Ehrenreich 2001). The growing weakness of labor unions has been suggested as one explanation for the overall decline in voter turnout in the U. S. since the 1970s (Asher et al., 2001: 133). Crime rates might also increase; Smith (1997) reports higher homicide rates in states with higher proportion of persons living below the poverty line, higher unemployment, and lower levels of per capita personal income. On the other hand, lower levels of unemployment in low-wage states may contribute to greater social stability, although Smith (1997) found no relationship between unemployment and crime rates.

IV. Data and measures

The dependent variables in this analysis will include several different aspects of state economies:

Gross state product (GSP), analogous to GNP, is the total value of all goods and services produced in a state. GSP will be expressed in constant dollars using the GNP price deflator. Personal income per capita is also corrected for inflation based on the Consumer Price Index. Employment growth is the annual rate of change in the number of persons employed in a state, based on payroll data..

The unemployment rate is calculated by the Bureau of Labor Statistics for each state based on surveys of employers.

Two measures will be used to assess a state's role in the international economy. First is the dollar value of state manufacturing exports; second is the total amount of foreign direct investment in a state, in constant (1972) dollars (available only since 1978). These indicators will be used as dependent variables to assess the impact of state labor costs.

Productivity will also be used as an intervening variable, because (as Porter, 1985, argued) a state with a productive labor force may have a comparative advantage in the international economy even if its labor costs are high. Productivity will be measured by the annual rate of change in the value of manufactured goods in a state, relative to the size of the state's labor force.

State labor costs will be indexed by the factor scores for 1970-2000 described earlier. To assess the impact of federal changes in labor costs, the three components described earlier (Social Security payroll taxes, and federal minimum wage, and dummies for presidential administrations) were subject to factor analysis (principal components). All three loaded on a single factor, which accounted for 63 percent of the variance; the factor loadings were .35 for the Presidential dummy variable, .688 for Social Security tax rates, and -.636 for the minimum wage. By including these two indicators, I can also test whether state or national labor-cost factors have more impact on a state's economic outcomes.

Other control variables will include an indicator of state tax burdens: total state/local taxes as a percent of state personal income. I also include the value (in constant dollars) of defense spending (prime military contracts) in a state. As domestic spending has been cut after years of federal deficits and devolution, federal defense spending has emerged as the primary form of federal financial influence to states (Gottlieb 1997) and also plays a major role in American exports.

Results: A. Economic effects of state labor costs

The models of state economic outcomes are to be estimated are as follows:

$$DV(1-6) = a + B1*(SLC) + B2*(PROD) + B3*(DEF) + B4*(TAX) + B5*(FLC)$$

Where:

DV=each of 6 economic outcomes (GSP, personal income, unemployment, job growth, value of exports, value of FDI)

PROD=productivity (manufacturing value-added per worker)

SLC=factor scores for state labor costs

FLC-factor score for federal labor costs

TAX=state/local taxes as a percent of personal income

DEF=federal defense spending (prime contracts) per year

Methodology: Pooled time-series cross-section regression analysis will be used for 50 states, 1970-2000 (equations estimated with STATA using panel-corrected standard errors).¹ Serial correlation (indicated by a large rho coefficient; Box-Pierce test) was evident only for Gross State Product, so that model was corrected for AR(1). Results for the six dependent variables are shown in Table 3.

The results support most mainstream economists' dire predictions concerning the adverse employment effects of increasing wages and benefits. Unemployment is significantly higher in states with higher labor costs, and the labor force grows more slowly. However, the higher the labor costs in a state, the *greater* the increase in personal income, GSP, exports, and foreign direct investment. This calls into question Fox and Lee's (1996) findings that foreign firms are more attracted to low-wage states.

Contrary to expectations, federal labor costs are associated with *gains* in personal income and *faster* growth in foreign direct investment, exports, and the labor force; they have no apparent effect on state unemployment or GSP. It is interesting to note that not only do state labor costs have a significant impact independent of federal labor costs, but the t-value for state labor costs (at least by these measures) is higher for GSP, personal income growth, and unemployment.

Federal defense spending is strongly and positively associated with gains in exports, FDI, personal income, and growth in the labor force, but has no apparent impact on either GSP or unemployment. The strong political support from state and local officials (and members of Congress) for expanding military spending and keeping military bases open thus apparently has at least some empirical economic basis.

As most economists have reported, state/local taxes have no significant impact on either GSP or unemployment,² although both are somewhat higher in high-tax states. Growth in personal income and the labor force are significantly higher in states with a higher tax burden. Although higher taxes are linked to significantly lower levels of FDI and exports, these comparisons must be interpreted with caution because we have only 538 cases (state/years) for FDI, compared with 1062 for the other variables.

The effects of productivity are puzzling, to say the least; its effects never reach statistical significance, and the signs of the coefficients with GSP, unemployment, FDI, and exports are negative. And higher productivity shows a *positive* relationship to growth in the labor force and is linked to *lower* unemployment – the long-term effect economists such as Thurow (1999) have predicted, but surprising given these annual data. The economics profession, however, as long been debating the appropriate measures to use to analyze productivity (Baumol, Blackman, and Wolff 1989), and the measure available for the states for this time period (manufacturing value-

added per worker) may not be ideal.³

Let us now take a closer look at the effects of openness to international economic trends. I added two interaction terms (exports or FDI * LABCOSTS) to the equations for unemployment and GSP. If these are significantly positive, labor costs have a greater impact on these economic outcomes in states most closely tied to the international economy. The results are shown in Table 4. Both interaction terms are positive and highly significant for GSP; while neither exports nor FDI by themselves have an independent impact on GSP, international economic ties in high-labor-cost states are associated with faster economic growth. And while high state labor costs by themselves are linked to higher levels of unemployment, unemployment is significantly lower in states with high labor costs combined with high levels of FDI. The interaction term for exports has no impact on unemployment, but as noted previously, exports are significantly higher in states with higher labor costs.

There is little evidence, therefore, that high state labor costs hurt a state's international economic linkages. But how about the opposite relationship: does exposure to the international economy constrain growth in labor costs? I examined the trend in labor costs, 1980-1995, for states ranked from high to low on foreign direct investment and exports (Hansen 2003). I found little evidence of any international impact of exports on labor costs, either the factor score or union density; rates of decline changed little regardless of how much a state exported.. With foreign direct investment, the relationship was in the expected direction: greater declines in union membership and in overall labor costs in states in the highest quadrant of foreign investment, although the differences were not statistically significant.

Results: B. Social consequences of declining state labor costs

I now turn to consideration of some possible social consequences of declines in state labor costs. Stagnant wages may contribute to rising levels of poverty and slower growth in personal income.. Population loss may occur as well as people relocate to higher-paying regions. Voter turnout may also be affected; people with fewer resources are less likely to participate in politics (Verba, Schlozman, and Brady 1995), and if they must work overtime or hold two jobs in order to make ends meet, they will have less time for political activism. The growing weakness of labor unions has been suggested as one explanation for the overall decline in voter turnout in the U. S. since the 1970s (Asher et al., 2001: 133). Finally, crime rates may increase; Smith (1997) reported a positive relationship between levels of resource deprivation and homicide rates in the states. On the other hand, lower levels of unemployment in low-wage states may contribute to greater social stability, although Smith (1997) found no relationship between unemployment and state homicide rates.

Table 5 shows the mean levels of poverty rates, growth in personal income, population growth,

change in voter turnout, and violent crime rates⁴ for states with three different levels of changes in labor costs between 1980 and 2000. While official poverty rates declined in all three groups of states, the decline was smallest in states with the greatest decrease in labor costs (averaging 31 percent). Not surprisingly, personal income rose fastest in states where labor costs declined the least. Also as expected, turnout in gubernatorial elections increased and population growth was higher in states where labor costs declined the least. The most striking relationship is with crime rates; violent crime *increased* 19 percent in the states with the greatest declines in labor costs, but fell 3 percent in states with the lowest declines.

Obviously these zero-order relationships with labor costs do not take into account the many other factors that might influence trends in population, wealth, voter turnout, or crime. Nor do they consider possible lag times; Smith (1997) used a 15-year lag to model the impact of his measure of resource deprivation on crime rates. But the data in Table 5 do suggest that declining labor costs may indeed have adverse social consequences, and that further research into these social impacts is warranted.

Conclusion

My cross-sectional analysis (Hansen 2001) of trends in state economic growth rates, 1980 - 1998, found that lower labor costs had modest negative effects on unemployment and rates of job creation. Although high labor costs were also linked to productivity gains and the attraction of foreign investment, competitive pressures within a federal system have forced most states to emphasize the quantity rather than the quality of jobs.

This analysis has updated that study with a measure of state labor costs based on trends, 1970-2000, in wages, union density, and government benefits to the unemployed and to injured workers. A pooled time-series/cross sectional analysis was used to model the economic consequences of these state labor costs. The results provide even stronger evidence for both the earlier cross-section results and economists' predictions concerning the negative impacts of higher wages and more generous benefits on employment. But states where labor costs declined the least apparently do better in terms of exports, foreign direct investment, and growth in GSP or per capita personal income.

I also compared the effects of state and federal labor costs on state economies. The state labor-costs measure proved to be largely independent of federal trends, and to have a significant independent impact on several aspects of state economies. The federal indicator of labor costs is far from ideal, but unfortunately the more comprehensive Employment Costs Index prepared by the BLS is not available by state. Measurement issues aside, this analysis points to the importance of incorporating BOTH endogenous and exogenous factors in any analysis of state policy outcomes, as Brace (1993) and Hendrick and Garand (1991) have done.

The cross-sectional analysis of possible social consequences of declining labor costs is based only on changes since 1980 in indicators of poverty, voter turnout, population, and violent crime. Clearly more detailed research is needed on these issues in the states. The results, however, certainly give credence to the critics of neoliberal economics and the “Dixiefication” of America (Cummings 1998). Stagnant wages, reduced benefits, and as others have documented (Galbraith 1998), rising inequality, may well pose serious problems for social capital and civic life. The rise in poverty rates among children is especially troubling, given Smith’s (1997) finding of a strong link between resource deprivation and violent crime. As citizens and policy-makers, we will have to decide whether the employment gains from stagnant or declining wages and benefits are worth the social costs.

Notes

1. Katz (2001) recommends using panel-corrected standard errors to control for heteroskedasticity in time-series cross-sectional data sets. Similar results were found using fixed-effects OLS models with dummies for individual states.
2. An alternative indicator of state taxes, the maximum rate of a state’s corporate income tax per year, likewise showed negligible effects on state economic outcomes.
3. Hansen (2003) found that productivity was positively related to state labor costs prior to 1980, but not since then. Volgy, Schwarz, and Imwalle (1996) found a weaker association between wages and productivity gains in weak-labor countries (including the U. S.) than in those with strong worker power.
4. See Table 3 for descriptions of the measures used. Future analyses should consider time-series data and varying lag times for the social indicators.

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Table 1. State Labor Costs, 1970, and Percent Change, 1970 - 2000

	1970 Labor Costs	2000 Labor Costs	Percent Change
Michigan	441	333	-24.6
Alaska	355	283	-20.3
New York	388	332	-14.4
Washington	436	301	-31.2
West Virginia	430	243	-43.5
Pennsylvania	395	272	-31.2
Ohio	403	286	-29.0
Montana	342	236	-30.9
Illinois	395	282	-28.7
Indiana	387	265	-31.4
Wisconsin	364	275	-24.6
Oregon	353	265	-24.7
Minnesota	336	288	-14.3
California	360	248	-31.0
Hawaii	327	328	.1
Missouri	384	231	-39.7
New Jersey	345	311	- 9.8
Delaware	286	251	-12.2
Rhode Island	297	264	-11.1
Iowa	283	243	-14.3
Kentucky	316	229	-27.3
Nevada	375	261	-30.1
Massachusetts	303	258	-14.8
Connecticut	308	273	-11.3
Maryland	288	251	-13.0
Maine	234	239	+ 2.1
Alabama	248	189	-23.9
Colorado	279	213	-23.6
Wyoming	240	206	-14.3
Nebraska	245	184	-24.9
Idaho	248	190	-23.6
Louisiana	254	191	-24.6
Utah	267	186	-30.3
Tennessee	247	188	-24.2
New Mexico	203	185	-9.3
Vermont	223	212	- 4.8

Kansas	239	211	-11.9
Oklahoma	224	177	-20.1
North Dakota	232	170	-26.7
Arizona	243	164	-32.5
South Dakota	196	144	-26.6
New Hampshire	227	208	- 8.6
Arkansas	218	160	-27.1
Virginia	214	172	-19.8
Mississippi	181	152	-16.6
Georgia	214	176	-17.3
Texas	213	166	-22.2
Florida	202	171	-15.3
North Carolina	142	152	7.4
South Carolina	159	137	-13.9
Mean	290	227	-20.3
SD	73.3	53.2	10.3
W	.252	.234	

Table 2. National Factors and Trends in State Labor Costs, 1970-2000

	B	St. Error	T	Sig.
Independent variables:				
Federal minimum wage*	.131	.056	2.34	.019
Social Security payroll tax*	-11.93	4.31	-2.77	.006
Presidential administration (1=R, 2=D)	-14.15	4.77	-2.96	.003
Year	.000	.006	.054	.957
Constant	281.97	54.26	5.20	.000
R ²	.10			
Adj. R ²	.09			
F	42.33			

* Constant (2000) dollars

Table 3. Regression of Estimated Labor Costs Change, 1980-2000, on State Economic Variables

	<u>Gross state product</u>			<u>Growth in personal income</u>			<u>Growth in labor force</u>		
	b	st. error	t	b	st. error	t	b	st. error	t
Independent variables:									
Productivity	-.132	.088	-1.49	29.34	19.5	1.51	.011	.01	.95
Defense spending	.003	.000	.79	.165	.089	17.93	.0008	.00	5.65
Federal labor costs	-.014	.007	-.21	11.93	2.06	5.77	.0059	.0011	5.17
State labor costs	.0095	.0013	7.12	2.46	.41	5.97	-.0005	.0001	-3.26
State/local taxes as % personal income	.0019	.0011	1.66	1.33	.32	4.10	.0007	.0002	4.08
Constant	2.58	2.39	1.01	7.23	.75	9.48	1.40	.41	3.37
R ²		.71			.45			.44	
Wald Chi Square (1062,50)		864.5			120.3			81.1	

	<u>Unemployment</u>			<u>Exports</u>			<u>Foreign direct investment</u>		
	b	st. error	t	b	st. error	t	b	st. error	t
Independent variables:									
Productivity	-.132	.09	-1.49	-9.66	14.9	-.65	-192.8	209.6	-.92
Defense spending	.0003	.0004	.79	1.18	.13	9.02	6.64	1.13	5.83
Federal labor costs	-.001	.0065	-.21	6.39	2.13	3.00	96.3	40.3	2.39
State labor costs	.0095	.0013	7.12	4.33	.82	5.31	3.44	13.3	.26
State/local taxes as % personal income	.0019	.0011	1.66	-1.96	.38	-5.20	-4.29	8.71	-.49
Constant	2.58	2.39	1.08	2318	816	2.84	3685	141	2.61
R ²		.14			.52			.49	
Wald Chi Square		197.9			118.7			194.4	

Table 4. Combined Impact of Exports, FDI, and State Labor Costs on Unemployment and GSP

	Gross State Product			Gross State Product		
	b	st. error	t	b	st. error	t
Independent variables:						
Productivity	28.25	91.44	-.31	157.52	199.34	.79
Defense spending	12.00	.85	14.07	11.56	.96	12.07
State/local taxes as % personal income	4.335	2.24	1.94	5.56	15.64	-.36
Federal labor costs	-41.38	10.04	-4.13	-122.78	22.71	-5.41
State labor costs	-12.97	7.95	-1.83	24.64	10.93	2.25
Exports	-.245	1.53	-.16			
FDI				.026	.089	.30
Interact: EXP*SLC	.032	.004	6.79			
Interact: FDI*SLC				.005	.0004	10.93
Constant	-65538	4158	-1.57	-39438	7968	-4.95
R ²		.86			.87	
Wald Chi Square	(1062,50)	1114		(590,50)	2942	
	Unemployment			Unemployment		
	b	st. error	t	b	st. error	t
Independent variables:						
Productivity	-.132	.088	-1.50	-.102	.099	-1.15
Defense spending	.0008	.0008	.93	.001	.0005	2.09
State/local taxes as % personal income	.0018	.0011	1.64	-.0011	.001	-.77
Federal labor costs	-.0011	.0065	-.18	-.002	.010	-.21
State labor costs	.0095	.0016	5.72	.017	.002	6.97
Exports	-.0006	.0001	-.57			
FDI				.004	.0001	.03
Interact: EXP*SLC	.087	.0041	.21			
Interact: FDI*SLC				-3.03	.853	-3.56
Constant	2.269	2.37	1.13	1.98	3.49	.57
R ²		.14			.21	
Wald Chi Square	(1062,50)	281.7		(590,50)	199.8	

Table 5. State Labor Costs Declines and Possible Social Consequences

		Percent Change, 1980-2000, in:				
personal income		Per capita	Poverty rate	Voter	Population	Violent
			Turnout		Crime	
Mean Rate of Labor Cost Decline:						
High	(-31.2%) N=16	256.8	- 2.3	-0.1	16.8	18.6
Medium	(-23.9%) N=17	287.3	- 4.1	1.2	12.8	4.9
Low	(-12.8%) N=17	333.6	- 3.4	7.2	19.5	-2.7

Per capita personal income: In constant (1990) dollars. *Statistical Abstract of the U. S.*

Poverty rate: Percent of a state's population living below the official federal poverty level for a family of four. *Statistical Abstract of the U. S.*

Voter turnout: Difference in average turnout in state gubernatorial elections between 1980-1988 and 1994-1997 (Gray, Jacob, and Albritten 1993; Gray, Hanson, and Jacob 1999).

Population growth: *Statistical Abstract of the U. S.*

Violent crime: FBI Uniform Crime Reports data. *Statistical Abstract of the U. S.*