

**The Effects of the Repeal
of Utah's Prevailing Wage Law
on the Construction Labor Market
and Apprenticeship Training**

by

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Introduction:

Government has always been a major purchaser of construction services. In 1987, federal, state and local governments jointly accounted for 20 percent of all construction purchases (U.S., 1987). As a primary customer of construction services, government holds the potential to use its bargaining power to reduce its costs by forcing down wages. As early as 1881, the AFL argued for the passage of prevailing wage laws which would prohibit government from using its market power to lower wages. Kansas passed the first state prevailing wage law in 1911 and by 1969 forty-one states and the District of Columbia had prevailing wage laws in effect. The Federal Government passed the Davis-Bacon prevailing wage law in 1931 (Gould and Bittlingmayer 1980). These laws effectively took wages out of the competitive strategies of contractors preparing bids for government jobs.

State governments began experiencing fiscal crises in the late 1970s. As expenditures exceeded revenues, many state legislators argued that to save tax dollars government should use its bargaining power to lower its construction costs even if the probable effect of this action should be the lowering of construction wages. In 1979 Florida repealed its prevailing wage law which had been on the books since 1933. In the next 9 years, seven additional states repealed their prevailing laws - Alabama and Utah (1981), Arizona (1984), Colorado, Idaho and New Hampshire (1985), and Louisiana (1988). Nine states have never had prevailing wage laws - Georgia, Iowa, Mississippi, North Carolina, North Dakota, South Carolina, South Dakota, Vermont and Virginia (Thieblot 1986).

This paper is a case study of the effects of the repeal of Utah's prevailing wage law. We find that the Utah repeal accelerated the decline in the union share of the state's construction labor market, drove down average construction wages in the state, and decreased union apprenticeship training for construction. No other public or private

source has offset the decline in training. In response to the decline in union membership and training, contractors have reduced turnover to the firm in order to retain skilled workers and minimize screening and training costs. However, in response to not only the decline in construction wages but also the coincident decline in health and pension benefits, experienced construction workers are leaving their trades for careers in other industries. Thus, while construction firm turnover is on the decline, construction career turnover is on the rise.

There is a looming crisis in training for construction workers in Utah. This crisis is the result of the market's failure to provide effective incentives to elicit training programs from those capable of paying for general training in construction skills and sufficient incentives for those trained in construction to remain in the industry. This looming crisis is currently in abeyance as contractors use skilled workers trained by unions prior to the 1981 repeal. The crisis has further been masked until recently by a slow-growth construction economy in the state. However, as the generation of union-trained construction workers ages, the training crisis will slowly emerge. If the Utah construction market expands rapidly (as may be happening currently), the training crisis will come to the fore more rapidly.

The repeal of Utah's prevailing wage law precipitated market failures in training and benefit payments. Government policy to resolve these market failures in training and remuneration are of two kinds. First, government can directly provide the needed training through vocational schooling and student loans. Second, government can provide the pension and health programs needed to keep skilled construction workers within the industry after family formation. These policies have the disadvantage of putting fiscal pressure on state budgets, the kind of pressure that the original repeal was designed to relieve. Alternatively, Utah's state government could re-enact its prevailing wage law and/or other legislation designed to foster construction union membership. This policy

would not raise state budgets directly but would raise state construction costs. On balance, fostering construction union membership may be a less expensive policy compared to state sponsored training.

Repeal Leads to a Decline in Construction Unions and Wages.

When Utah repealed its prevailing wage law in construction, wages became a focus of competition between contractors bidding on state jobs. Many contractors went non-union or double-breasted in order to match or beat the lower wages of non-union contractors and other union contractors lost market share. Mike Gibbons, a unionized heavy and highway contractor recalls:

The [Utah] Little Davis Bacon applied to cities, counties, state, all the government agencies. There was always a lot of open shop around, but whenever they came up to any of these jobs, which tended to be the bigger jobs, we were always on an even playing field, labor wise. As soon as the law was repealed, some of these non-union people that had been doing small work around town suddenly just took off, and the union people, like ourselves, our market share decreased. We were paying \$25 and they were paying \$15 or even maybe \$10. There were times when we could bid a job at cost and they would still beat us. What it did to us is our market share just plummeted and continued to plummet over a period of ten years.

Because construction employment was falling, many union members went non-union with their traditional employers in order to stay employed. Terry Wright of the large industrial and commercial general contracting firm, Jacobson Construction, notes that after the repeal:

There were a lot of union workers that carried their card in their shoe. They worked open shop until a union job came available. A lot of folks all of a sudden started to find homes over there [in the open shop] and never came back.

Consequently, contractors which remained union did not have a significant labor productivity advantage over many of the newly non-union contractors. This effectively forced remaining union contractors out of much of the construction market.

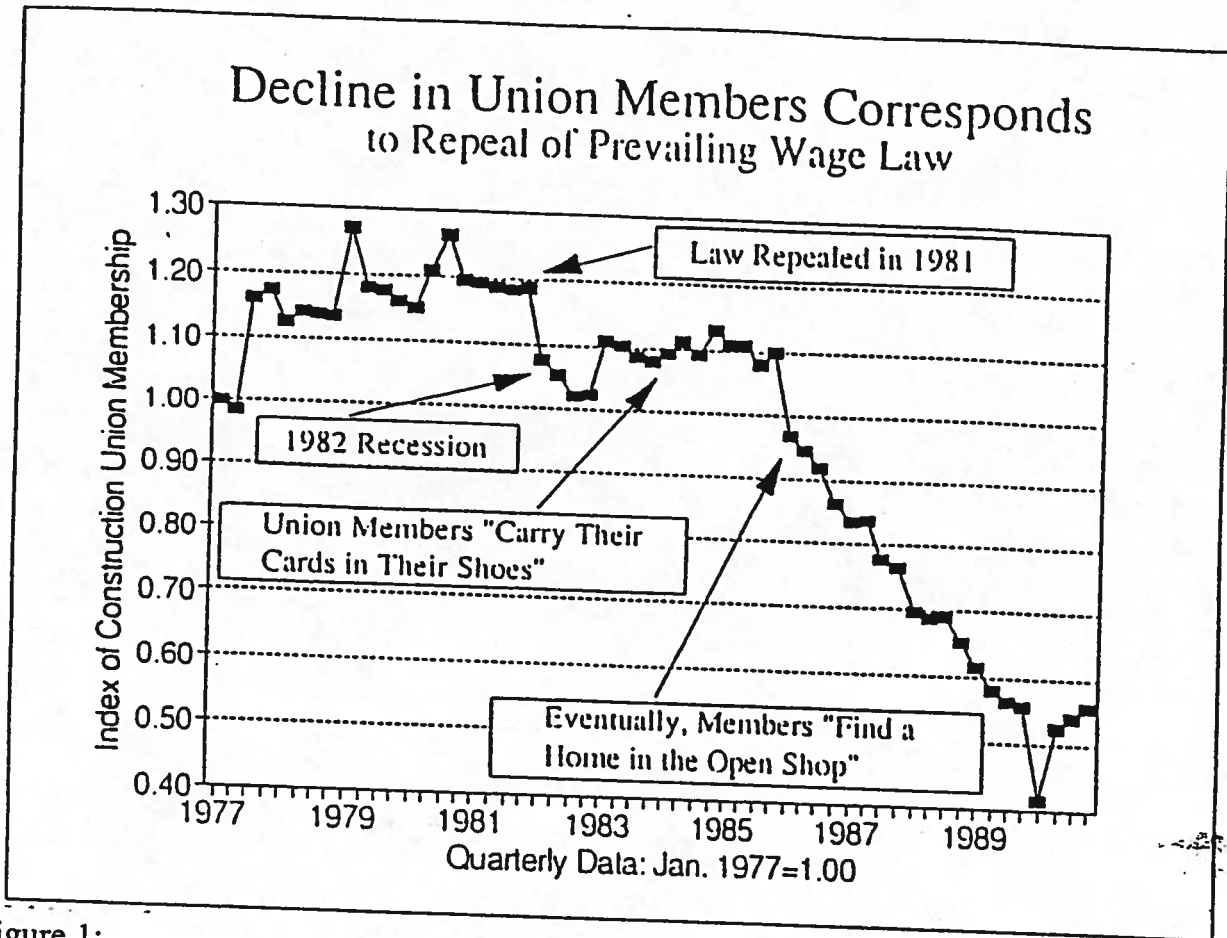


Figure 1:

Union membership begins to decline with the prevailing wage law repeal and the onset of the 1982 recession. Membership recovers somewhat in 1983 but not as fast as overall construction employment. With the 1985 downturn in Utah construction employment, union membership begins a steady decline to less than half its late 1970s peak.

With the decline of union contractors, union membership fell. (Figure 1)¹ The decline in membership was accelerated by the 1982 recession. Union membership appeared to recover from the recession but many of these dues-paying members were

¹ These data are based on quarterly per capita dues contributions to the Utah AFL-CIO Building and Construction Trades Council. These per capita dues payments underestimate union membership because of under reporting of membership from participating locals as well as other exemptions and withdrawals of locals.

working open shop. (Figure 2) With the onset of the next downturn in Utah construction in 1986, union membership began to fall steadily. These data are consistent with the story that union members working in the open shop eventually found a home there and quit paying their union dues.

With the repeal of the prevailing wage law and the decline in unionization in Utah, average wages in construction relative to the average Utah wage fell. (Figure 2) Construction wages which ranged between 120% and 125% of the average Utah wage prior to the construction boom of the 1970s, rose to above 130% of the average Utah wage during the boom. When construction employment growth stopped in the late 1970s, construction wages trended back towards the high end of their normal premium over average Utah wages. But with the repeal of the prevailing wage law, construction wages fell to a new, lower range of between 110% and 115% of the average wage in Utah.

Because many factors change together, it is difficult to estimate the wage effect of the repeal of Utah's prevailing wage law. However, by comparing relative wage trends in construction after the repeals in all eight states which annulled their prevailing wage laws to states which kept theirs and states which never had prevailing wage laws, an estimate of the effect of these repeals is possible. Table I reports the results of a generalized linear regression model of the determinants of the wages in construction relative to average state wages for all 50 states and the District of Columbia.² Construction wages in each state are broken down by contractor type corresponding to four digit level standard industry codes. Residential and heavy and highway contractors are excluded because residential contractors typically do not do state work and heavy and highway contractors typically continue to be covered by the Federal prevailing wage law. The model makes relative wages for each contractor type in each state for each year between 1975 and

² This is a fixed effects model where separate state and industry intercepts are calculated but not reported.

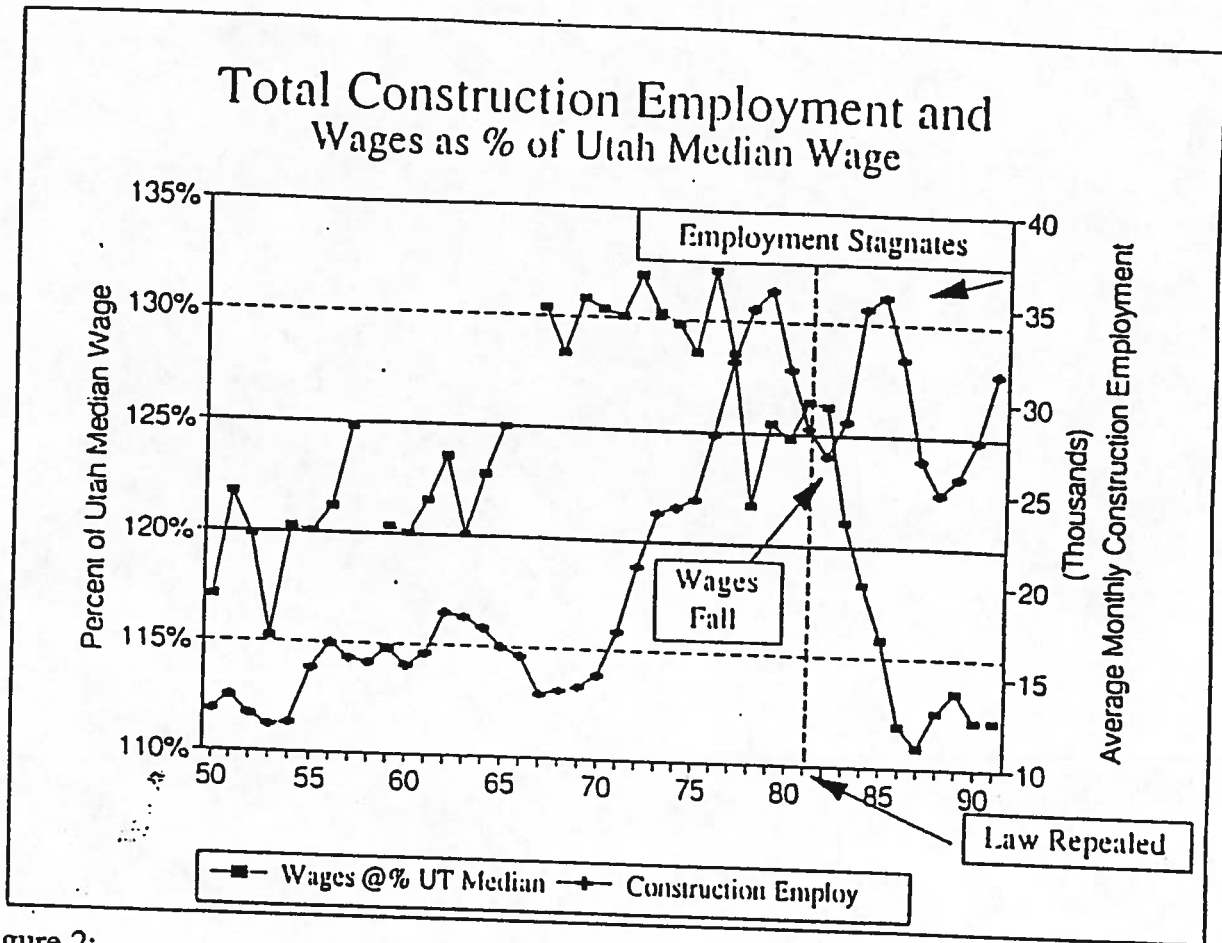


Figure 2:

Source: Utah Job Security Division of Labor Market Information Annual Report, Table 5.

Construction employment in Utah grows rapidly in the 1970s, but growth stops in the 1980s and cyclical fluctuations become more pronounced. Wages which ranged between 120% and 125% of the Utah median wage prior to the construction boom of the 1970s, rise above 130% of Utah's median wage during the boom. As the boom ends, wages trend back down to their normal range but with the repeal of Utah's prevailing wage law, wages plummet.

1991 a function of an annual time trend. Unionization in construction fell throughout the time period studied and this probably accounts for the one percentage point per year loss

Table 1: The Effect of Prevailing Wage Repeals on the Construction Wage Premium.

Dependable Variable =	Construction Workers' Wage as a Percent of the State Average Wage	
<u>Independent Variables*</u>	<u>Effect on Wage Premium**</u>	
General Annual Trend in Wages		-1 percentage points
State-by-State Unemployment Rate		-4 percentage points
State Never Had Prevailing Wage Law		-4 percentage points
State Repealed It's Prevailing Wage Law		-2 percentage points
(Constant)		131% of average state
Adjusted R Square	= .74	% States & Years Repeals = 9%
Number of Cases	= 27,660	% States & Years Never Had Prevailing Wage = 16%
Years	= 1975 to 1991	1975 Construction Premium = 122%
Contractor Type	= 4 digit SIC	1991 Construction Premium = 105%

*State and Industry effects not reported.

**All Variables are statistically significant at the 1% level.

Source: U.S. Dept of Labor, Employment and Wages.

The construction wage premium over average wages in a state fell one percentage point per year in this model covering the years 1975 to 1991. Each percentage point in a state's unemployment level lowered construction wages relative to average state wages by 4/10ths of a percentage point. The repeal of a states prevailing wage law lowered the construction premium by 2 points. The construction premium in states which never had a prevailing wage law were 4 points lower than in states which retained this law throughout the period.

in the construction wage premium found by the model. Additionally, the model finds that as unemployment rises, construction wages fall faster than average wages within a state. A 3 point rise in unemployment results in a 1 point decline in the construction wage

premium. States which never had a prevailing wage law have construction wage premiums which are 4 points lower than states with prevailing wage laws. Finally, our focus is the wage impact of prevailing law repeals. The model estimates that construction wage premiums fell 2 points after the repeal compared to before, controlling for these aforementioned factors.

This is an underestimate of the repeal effect in part because the model does not include benefits. Typically, unionized construction workers receive better health and pension benefits than do non-unionized workers. The shift to non-union work with lower benefits is not measured by the model. Also, while the model estimates an overall construction wage premium decline of 2 points, the fall in the wages of unionized workers moving to open shop employment would be much larger. Finally, the result that the negative effect of never having had a prevailing wage law is greater than the negative effect of having repealed such a law suggests that the final effect of these repeals has not yet been felt. By 1992, state prevailing wage law repeals had been in effect for an average of 8.5 years and assuming that the final effect will be equal to the negative wage effect in those states which never had prevailing wage laws, our results suggest that the repeal effects in 1992 were 80% complete.³

Decline in Training

With the decline in unions and the decline in relative wages, training for construction, both in union apprenticeships and through vocational schools in Utah declined. Union apprenticeships are tied to the availability of union jobs. For example, unionized plumbers in Utah historically have attempted to maintain apprenticeship rates at between 10% and 15% of the number of union journeymen plumbers in the state. (Figure 3) However, as employment boomed in the 1970's, the union could not meet

³ Because repealing states were not heavily unionized, the effect of a repeal on average construction wages was less than it might be if a heavily unionized state repealed its prevailing wage law.

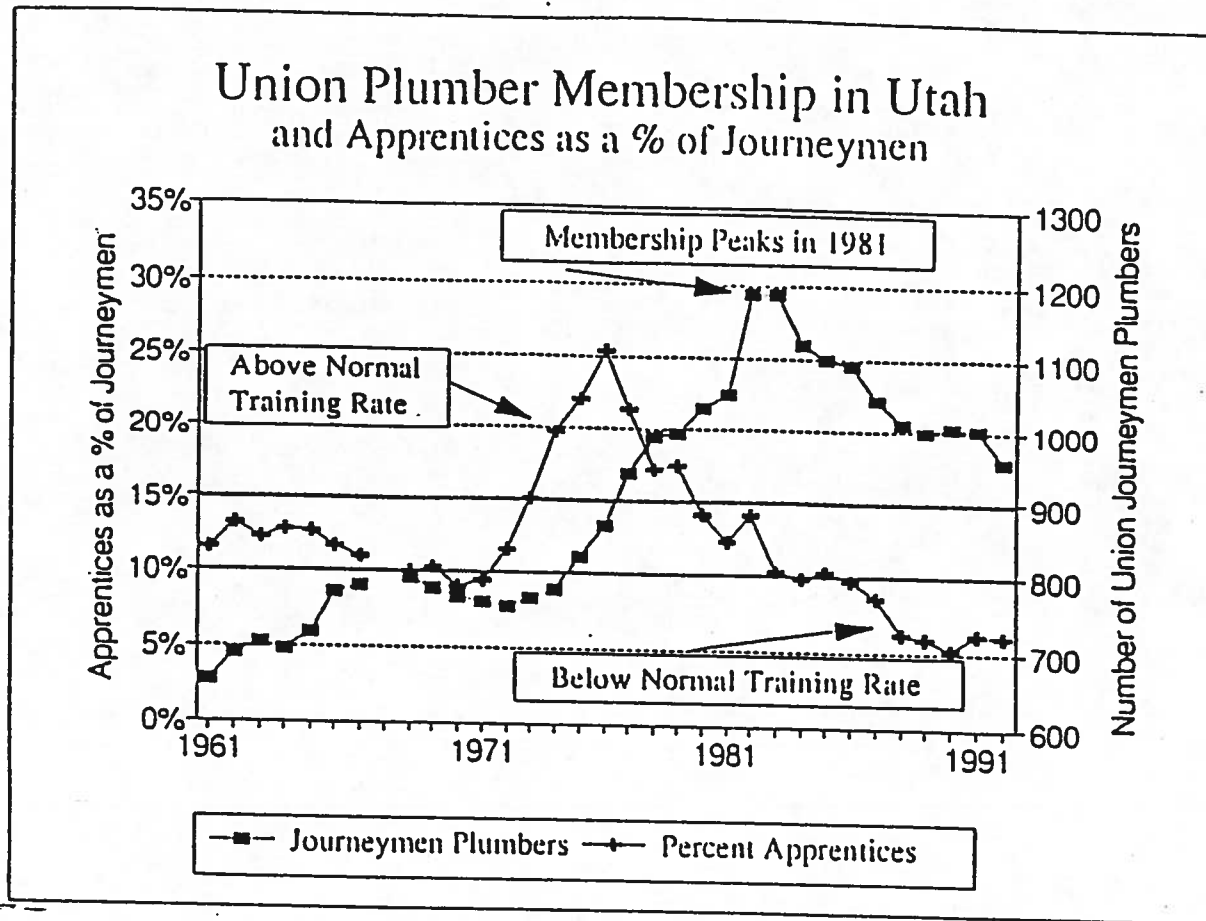


Figure 3

Source: U.S. Plumbers and Pipefitters Locals' Membership Records.

The plumbers union in Utah has historically attempted to train apprentices at a rate of 10 to 15 percent of their journeymen members. As employment boomed in the 1970s, the union could not meet journeyman demand and consequently expanded apprenticeship training was reduced back to normal rates. But with the repeal of the prevailing wage law, union membership declined and apprenticeship training rates were cut to all-time lows.

journeyman demand from their unionized contractors. Consequently, the union increased apprenticeship rates to a peak of 25% in 1975. The boom persisted, but the backlog had been remedied. So the union lowered its apprenticeship rate back to normal ranges by 1978. Employment during the construction boom peaked in 1979 and union plumber

membership peaked in 1981. With the repeal of the Utah prevailing wage law, the union dropped its apprenticeship rate to 10%, the low of its historical range. Union membership fell slightly in 1982 and then began a steeper decline in 1983. Faced with these sustained declines in membership, the union cut its apprenticeship rate to historical lows in 1986 and thereafter. Unions hit harder by declines in membership have scaled back their apprenticeship programs further. The carpenters who graduated 70 in a class in 1977, graduated 5 in 1992 (Hansen). The bricklayers suspended their apprenticeship program altogether.

The decline in union apprenticeship training in Utah has not been offset by a rise in other sources of training. Because the repeal of Utah's prevailing wage law was motivated by a desire to limit state expenditures, state legislators were not eager to raise funding to state sponsored vocational training. Delmar Stevens, who has taught building trades construction at Salt Lake Community College since 1971, chronicles the decline in enrollment.

I started at the college in 1971. We went about two or three years and then the enrollment just really started to grow. [When I started we had] probably about 45 students with the first year and second year programs. Then about 1973 or 1974 it really started to grow. It jumped up to 200 students and then the crunch came in the last part of the 70s and early 80s it just dropped to 30 or 40 students. Right now we let in anybody who can walk or crawl. We'll probably graduate 6 or 7 this year.

While the number of construction vocational graduates grew in the 1970s, the construction labor force grew more rapidly. Thus, while the 1970s was the heyday of vocational training at Salt Lake Community College, vocational graduates as a percent of the construction labor force has already begun to decline.⁴

Stevens argues that the decline in enrollment is driven by a lack of demand for training. "The staff is hanging on by their fingernails because there's not enough students

⁴ Data available upon request.

that want to get into the program." He furthermore adds that many of his graduates do not stay in construction. "They get out and they find out that they don't want to work in the cold in the winter and they want to get into something more secure, something that's got benefits." While construction has always required workers to work in the cold, the loss of benefits and security has come with the stagnating employment, declining unionization and falling relative wages since 1980.

Stevens also argues the decline in construction training is a function of shifting government priorities in education:

I can't speak for the school – I don't want to get in trouble that way – but we do have more general ed classes feeding the University [than in the past] and the vocational programs are really suffering. You look at Weber State. They used to have vocational programs and with academic drift, they don't have any vocational programs anymore.

Tom Lewis, director of the plumbers and pipefitters apprenticeship program agrees with Stevens that there is an institutional tendency to move away from vocational education.

We used to have a pretty good relationship with the community colleges. The reason we bought our own building and moved out here [away from Salt Lake Community College] is that you have an administrator of a vocational school and they don't want to remain the administrator of a vocational school. They move to an applied technology center, then they're a community college, and then they're a university. I started my apprenticeship at Weber Vocational Center which is now Weber State University. Vocational training seems to get set aside as this evolution happens and we eventually just get moved out the back door.

The steady decline in vocational training as a percentage of the construction labor force through good times and bad supports the notion that the state has simply tried to get out of the business of construction vocational training. The fall in union membership and wages have made construction a less attractive career worth training for. At the same time unions have downsized their capacity to train construction workers. As unions are weakened and schools drift towards academic offerings, the capacity to smoothly respond to an upsurge in construction is undercut. Federally sponsored Job Corps vocational training is not in a position to fill in the gap.

Federal revenues pay for Job Corps training in Utah at both the Weber Basin and Clearfield centers. Federal funding in real terms for these centers has not expanded, but the Weber Basin Job Corp Center which draws predominately from the Utah population has significantly contracted its construction worker training throughout the 1980s. This Center committed itself to moving from an all-male training center in 1980 to a 50% female center by 1990. To accommodate this switch, training for traditionally male occupations such as construction have been scaled back to accommodate new offerings in traditionally female occupations such as office management and clerical work. Cement masonry and heavy equipment training have been eliminated and instruction in carpentry, painting and brick laying have been cut in half. The Clearfield Center has graduated approximately 100 construction trainees per year since the early 1970s. Fewer Clearfield graduates go into the Utah labor market compared to Weber Basin because Clearfield draws most of its students from out-of-state. On the whole, perhaps 10% of Clearfield graduates go into the Utah labor markets but this percentage will rise during periods of local labor shortage. However, it is estimated that at most, only 25% of the Clearfield graduates would ever say in Utah (Hill 1993).

Even without union pressure, a skill shortage in Utah construction may raise wages and induce a new generation of young people to enter vocational training. However, when that happens, the institutions may not be in-place to meet that demand which will add an additional lag to the natural time it takes to train a skilled laborer.

Market Responses: Training, Turnover and Careers.

The market has not successfully replaced the decline in union and state sponsored training. At a national level, the non-union Association of Building Contractors (ABC) has attempted to replicate the union system by bargaining for hourly contributions to a training fund. However, it is difficult to induce ABC's member contractors to put general training costs into their bids. Each contractor fears his competitors will not include training costs. Thus, in an attempt to be low-cost bidder, ABC contractors often refrain

from including training costs despite the ABC's initiative. Very little ABC training has occurred in Utah.

However, non-union apprenticeship programs do occur in the licensed trades of electricians and plumbers. In 1992, there were 846 non-union licensed apprentice electricians in Utah and 2068 non-union journeymen. This, there are 4 apprentices for every 10 journeyman in the non-union sector. In contrast, there were 123 apprentices and 607 journeymen in the union sector in 1992 or 2 apprentices for every 10 journeymen. In the non-union sector, apprentices begin at around \$6 per hour with no benefits. Over a four year period the state mandates that their wage rise to 80% of a journeyman's pay. In the union sector, apprentices begin at \$7 per hour with an additional \$3 in benefits. Their wages rise to \$14 per hour plus \$3 in benefits over a five year period (Leroy 1993). Non-union apprentices are sponsored by a particular contractor which oversees their on-the-job training and these apprentices also take class work at a participating community college. Union apprentices work under the direction of an apprenticeship coordinator, rotate among employees for on-the-job training and take classes at community colleges and union apprenticeship centers. Roughly 90% to 95% of the union apprentices complete their program and graduate to journeymen status while only 15% to 20% of the non-union apprentices graduate (Dean 1993). Given these graduation rates, in four years, out of 8-16 non-union apprentices, we should expect to find 125 to 170 journeymen turned out. In five years in the union sector, out of 123 apprentices, 110 to 115 apprentices would graduate to journeymen electricians. Thus, while the non-union sector accounts for more than 85% of all electrician apprentices, it accounts for around 60% of journeyman graduates. Economic theory is consistent with this pattern where non-union apprentices are paid less and graduate at a lower rate compared to union apprentices.

Economic theory posits that in the absence of market-wide institutions or government subsidies, individual workers will have to pay for their own on-the-job training when the skills learned are general to an industry and not specific and unique to

the activities of a particular firm. The worker-learner pays for training by accepting a wage which is lower than the value to the firm of that worker's marginal product. By working for less than what the worker is worth to the employer, the worker pays the employer for on-the-job training. The fact that beginning non-union electrical apprentices earn \$6 per hour while the union apprentices earn \$10 per hour (including benefits) is consistent with the theoretical proposition that non-union apprentices pay for their own training through a discounted wage below their marginal value to the contractor.

Because the employer does not pay for non-union training, the theory suggests that the employer has no stake in the worker's training. Consequently, if the worker leaves, the employer does not lose any investment in the worker's human capital. Thus, the employer will tolerate high levels of turnover. Because the worker is receiving less than what the worker can earn in other jobs with no on-the-job training, the worker may be tempted to exit jobs with training when current personal budget needs become pressing. So, on both the employer side and the worker side, turnover is tolerated in the non-union sector. This is consistent with higher turnover rates among non-union apprentices but other factors also contribute to the 15% to 95% differential in non-union to union graduation rates.

Because the non-union employer prices new hands at discounted wages which shield the employer from investing in the human capital of the new workers, the employer does not extensively screen new workers to forestall subsequent turnover. Failure to pre-select new workers for aptitudes and attitudes consistent with a long-term attachment to construction work adds to the turnover of non-union construction apprentices. In contrast, the joint apprenticeship boards of unions and union contractors do considerable preselection for both aptitude and attitude before letting a candidate into an apprenticeship program. This is because both the union contractors and unions will invest in the union apprentice's training. Not wanting to lose their up-front investment, they seek to eliminate exit once the apprenticeship is begun.

In the non-union sector, workers may also leave apprenticeships if it becomes

apparent that the employer offering training at a discounted wage is not delivering on that training promise. Because employers are able to discount wages of apprentices below their current worth to the employer, it is tempting to engage in bait-and-switch tactics where training is promised but not delivered. By saving on training costs, the employer can earn an additional profit from employing green hands at discounted wages. In the union sector, because employers and union journeymen invest in the training of the apprentices, bait-and-switch tactics are less attractive. Because the apprentice's wage is not discounted as much below what the apprentice could earn elsewhere, the apprentices are not as tempted to leave. Thus, economic theory predicts the observed pattern where the non-union sector must begin the training of 5 apprentices in order to finally graduate 1 journeyman while the union sector has close to a 1 to 1 ratio.

While non-union contractors tolerate high levels of turnover among apprentices, with the decline in training and union membership, non-union Utah contractors have sought to reduce the turnover of trained journeymen. Figure 4 shows that there has been a long-term decline in construction labor turnover. Table II presents a pooled, cross-sectional, time-series linear regression model explaining this long-term decline as well as the differences in turnover rates by contractor type for Utah from 1956 to 1991. Not surprisingly, this model shows that in years in which variations in monthly construction employment were great, turnover was higher. Also, it shows that contractors with larger crew sizes tolerated proportionately more turnover. Contractors employing more expensive labor sought to reduce turnover. When union membership was a high percentage of the construction labor force, turnover was higher simply because contractors losing one good worker could turn to the hiring hall for a reasonable substitute at little additional cost. When vocational schools were graduating a large number of construction-trained students relative to the Utah construction labor market, contractors tolerated more turnover because the market had proportionately more trained substitute workers. However, union membership and vocational graduates have been on

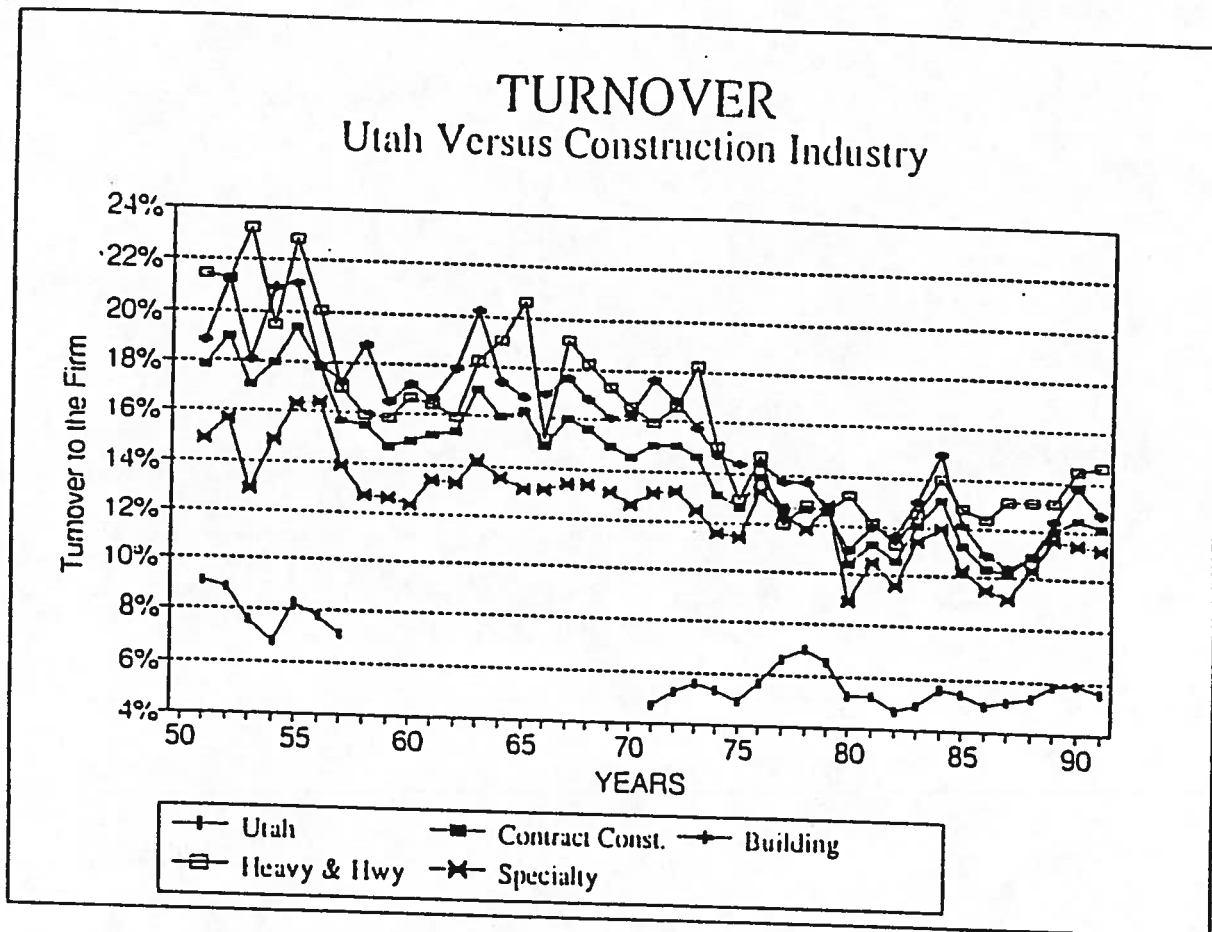


Figure 4

Source: Utah Job Security, Division of Labor Market Information
Annual Report, Table 5.

As the number of trained journeymen in the Union hiring halls declines and the number of non-union journeymen declines, firms respond by reducing turnover.

the decline. Thus, this regression model shows that over time, contractors have responded by reducing journeyman turnover.

While turnover to the firm has been on the decline, it may be that workers are entering and leaving construction at higher rates than twenty years ago. In 1970, Utah construction workers were on average 42 years old (U.S. 1970). In 1990 the age had fallen to 33 years old (U.S. 1990). Much of this decline may be due to the construction

**Table II As Union Membership and Vocational Graduates Decline,
Contractors Reduce Turnover to Retain Key Workers.**

Dependent Variable = firm turnover in construction*

<u>Variable**</u>	<u>Actual Coefficient</u>	<u>Standardized Coefficient</u>
Union Members***	1.76	.24
New Vocational Graduates***	2.45	.20
Real Wage	-.076	-.62
Seasonality	2.12	.15
Workers per Contractor	.052	.40
(Constant)	-1.88	

*The actual variable is $\ln(\text{turnover}/(1-\text{turnover}))$ to meet the technical requirement in linear regressions of being an unbounded dependent variable.

**All independent variables are statistically significant at the 1% level.

***As a percent of the construction labor force.

Adjusted R Square = .24

Number of Cases = 351

Time Period = 1956-1991

Contractor Type = 4 digit SIC

Source: Utah Job Security, Annual Report, Table 5.

Contractors in Utah tolerate higher labor turnover when union membership is a high percentage of the labor force, and when new vocational school graduates are plentiful. Turnover is more common in years when monthly employment fluctuates a lot. Contractors are more willing to tolerate turnover among lower paid workers and contractors with larger work crews must accept higher levels of turnover. Standardized coefficients indicate that worker skill and crew size have the largest impact on variations in employer turnover rates while both the availability of union members and new vocational graduates have larger effects than seasonal fluctuations in employment.

expansion in the 1970s bringing in a new generation of younger workers. But the decline in age may also be due to the decline in health and retirement benefits as well as the decline in relative wages associated with the decline in unions. As Delmar Stevens points out, many young construction workers trained by him leave the field at the point of family formation seeking other occupations which provide needed health and retirement benefits. While non-union contractors are increasingly providing health and retirement benefits especially to their key people, the health benefits tend to be more expensive for a given level of care and the retirement 401K plans lack the insurance component associated with union defined benefit plans. Further research on the effect of union decline on career turnover in Utah construction is needed.

Conclusions.

Employment in the construction industry is inherently unstable because the industry fluctuates cyclically and seasonally while firms expand and contract their employment as they win and lose job bids. Unions have acted like a fly-wheel within the industry creating career workers where they were only casual jobs. Unions did this by facilitating the movement of journeymen from employer to employer and minimizing the employer's transaction and screening costs in the process. Unions also lowered training turnover by providing a mechanism where employers and journeymen could rationally invest in the human capital of apprentices. This raised the wages of apprentices so they would stay with the training program and induced the union and employers to promote the passage from apprentice to journeyman in order to preserve their investment. Unions also encouraged career attachment of trained journeymen by providing relatively high wages and wages in the form of health and retirement insurance which is increasingly attractive to workers as they age. By creating career jobs in a casual labor market, unions created the institutions needed to make human capital investment rational market activity.

With the decline of unions in Utah, the formation and preservation of human capital skills has become less rational market behavior. Self-investment on the part of

apprentices becomes more precarious as the differential between the apprentice wage and alternative wages in other industries widens. It simply becomes more reasonable for an apprentice to leave construction and abandon build-up skills if unforeseen current budget problems emerge. The high turnover among non-union apprentices represents in the aggregate a considerable loss of human capital to the construction industry even though it is not a loss which the employer or the state pays for. With the lowering of construction wages, it becomes reasonable for young construction workers to limit the amount of human capital they invest in themselves. With a lower stake in construction skills and the disappearance of wages in the form of health and old-age insurance, it becomes more reasonable for journeymen construction workers to abandon the construction field upon family formation. This represents an additional loss of built up human capital.

Contractors have attempted to minimize the effect of this increased skill volatility within the industry by encouraging firm attachment. Still, despite initiatives such as profit sharing, 401K plans and health insurance designed to attach key workers to the firm, construction turnover remains well above the average for the Utah labor market. In short, union decline has meant the decline of the career worker within Utah construction, a diminution in incentives to invest in construction skills and an increased loss of accumulated human capital as apprentices and journeymen leave the trade.

While market incentives in the non-union environment make human capital investment less attractive, it is possible for the state and federal governments to rectify this by increasing their subsidies to vocational training and providing the health and old-age insurance largely absent in the construction labor market. The state could tax contractors just as a union does in order to pay for this training and these benefits. The state would also have to devise a system of allocating vocational students among contractors for extensive on-the-job experience. The irony would be that such a program would raise state taxes in order to replace a system that was dismantled by a repeal designed to lower taxes, and involve the government in market allocations in response to

a repeal that was justified by laissez-faire ideologies.

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