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The Temporary Help Services (THS) industry grew especially rapidly during the 1970s, 1980s, and 1990s.

During the same period, legal doctrine changed in 46 states so as to allow litigation for termination of employment by employers.

Conclusion: Autor’s empirical analysis attributes the changes in the THS industry to the efforts of employers to avoid the possibility of litigation.

Why is this important? Ostensibly well-intentioned efforts to increase workers’ rights and job security seem to have had the unintended effect of increasing employment in temporary jobs with low security. However, the net effect is unknown.
“Employment at will” recognized since 1953: Both parties have unlimited discretion to terminate employment unless contracted otherwise

“Implied contract”: Indirect statements imply legally binding contract

“Public policy”: Illegal to retaliate for upholding law or exercising certain rights (applies to all employees)

“Good faith”: Cannot use termination to avoid paying benefits

Autor predicts that implied contract exceptions will be particularly important because courts have made it difficult to avoid the possibility of implied contract litigation. Awarded damages average half a million dollars.
Model

Period 1:

- Workers and firms are matched and each worker makes a firm-specific skill investment $s \in [0, \bar{s}]$ at cost $c(s)$ which is strictly increasing and convex. Production and wages are normalized to zero.
- When period 1 ends, the quality of the firm-worker match is realized as a productivity shock $\eta \sim U[-z, z]$.

Period 2:

- If the pair remains together, the second period production is $Y = \gamma \times s + \eta$, where $\gamma \geq 0$ is the productivity of firm-specific skills.
- The worker has an outside wage of zero.
- If the pair splits, the firm pays a firing cost of $\phi > 0$ is the worker is a direct hire. However, if the worker is a temp, there is no firing cost.
Model

Worker’s solution

- If the firm-worker pair continues into period two, the Nash bargaining solution for the worker’s wage is $w = \beta(\gamma \times s + \eta + \phi)$ where $\beta \in (0, 1)$ is the worker’s bargaining power.
- Given the period 2 bargaining solution, the worker will choose $s$ to maximize $\mathbb{E}(w|w \geq 0)\mathbb{P}(w \geq 0) - c(s)$.
- The FOC is $c'(s^*) = \frac{\beta \gamma (z + \gamma s^* + \phi)}{2x}$.
- Since $c$ is convex, the optimal $s$ is increasing in the skill’s productivity and the firing cost.

Key implication: The worker should invest more in the firm-specific skill when the firing cost is higher.
The firm’s expected profit as a function of the firing cost is

\[ E[\pi(\phi)] = \frac{(1 - \beta)[z + \gamma s(\phi) + \phi]^2}{4z} - \phi. \]

The firing cost and productivity are complementary, that is,

\[ \frac{\partial^2 \pi}{\partial \gamma \partial \phi} \geq 0. \]

- Key implication 1: Under certain conditions the firm may optimally impose positive firing costs because it will induce workers to invest more.
- Key implication 2: The optimal firing cost will be higher when the return to the firm-specific skill is larger.
- Key implication 3: Court-imposed firing costs are more likely to bind for occupations with low \( \gamma \), so these occupations are more likely to be outsourced to temps.
Data

- CPS Contingent Worker Supplement: THSshare
- CPS Job Training Supplement: Trained and Tenure

Model: \( j \) indexes 485 occupations, coefficients estimated using OLS

\[
\text{THSshare}_j = \alpha + \beta_1 \text{Trained}_j + \beta_2 \text{Tenure}_j + \epsilon_j
\]

Result: The portion of workers who receive training is negatively related to the share of THS.
Fixed effects model

Idea: Exploit the differences between states in timing of legal exceptions to the employment at will doctrine.
Model: \( j \) indexes U.S. states, and \( j \) indexes years.

\[
\log(\text{THS}_{jt}) = \alpha + \delta(\text{Exceptions}_{jt}) \\
+ \lambda(\log(\text{Nonfarm Emp}_{jt})) \\
+ \zeta(\text{Demographics}_{jt}) \\
+ \mu_j + \tau_t + \epsilon_{jt}
\]

Extras: Serial correlation of errors within states is common and leads to down-ward biased standard errors. Autor estimates SEs clustered on the state. Some alternate specifications with various embellishments are also estimated.
Caveats

- Ideally the legal exceptions should occur independently and randomly across time and space, and there should be no effects in neighboring states. Such a case would justify viewing estimates as unbiased estimates of the ATE.
- But, the court rulings are not independent and probably contributed to the nation-wide maturation of the industry. This effect will not be captured.
- Yet, court rulings have a random element and are unlikely to be fully anticipated.
Data

- County Business Patterns (Census) 1979–95: Census of employers, payrolls by industry, including THS
- State and Area Employment Statistics (BLS): State-level nonfarm employment
- CPS (Census): Demographic controls
- \( n = 850 \)
Results

- Implied contract exceptions are positively related to the share of THS.
- The other two exceptions are not (trending negatively).
- The total number of exceptions is not strongly related to THS share.
- Individual state time trends are necessary to get a good estimate of the effect of implied contract exceptions.
Extras/Renustness

Dynamic analysis
- Augument model with leads/lags of dummy variables for law changes.
- Leads are small and insignificant, suggesting little anticipation of changes.
- Lags are large but imprecisely estimated, suggesting responses to law changes are large but heterogeneous in time or magnitude.
- Conclusion: The THS response to law changes is a growth rate of 14-22 percent per year for 4 years.

More robustness/Sanity check
- THS employment and union share are positively related.
- Even when implied contract exceptions included in model.
- Exceptions do not predict growth in other industries (consistent with legal analysis).