

## **Organizational Legitimacy and Survival: Evidence from Employer-Provided Health Insurance**

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### **Abstract**

*The article examines the relationship between organizational legitimacy and survival by investigating the impact of employer-provided health insurance (EPHI) on business survival. Adopting EHPI in the United States is considered to be legitimacy-driven. Employers have been complaining about the rising cost of health insurance, but they are reluctant to reduce their spending on EPHI. Using Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) and the Longitudinal Business Database (LBD) data from 1997 to 2005, this study's findings show that companies who offered EPHI were less likely to default. The advantage of business survival did not decline despite the significant increase of EPHI premiums during the study period. The findings provide empirical evidence that expensive legitimacy can be paid off by a better chance of survival.*

**Key words:** Legitimacy, Survival, and Health Insurance

### **Introduction**

For the last three decades, institutional theory has developed into a leading perspective in understanding the prevalence of interorganizational isomorphism (Barreto & Baden-Fuller, 2006). Most institutionalists agree that institutional environment is an important driving force for organizational isomorphism. Under ambiguous and uncertain circumstances, organizational changes are imitated in order to gain legitimacy or efficiency (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Tolbert & Zucker 1983). However, institutional theorists are divided into two camps in addressing the relationship between legitimacy and performance as a goal for isomorphic conformity.

One group of contributors claims that organizations are willing to pursue legitimacy at the expense of performance (Barreto & Baden-Fuller, 2006; DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Tolbert & Zucker 1983; Westphal, Gulati, & Shortell 1997). When certain organizational practices become normative, legitimacy gains become more important than performance improvements. In contrast, another group of institutional theorists insist that legitimacy and performance may not be exclusive (Deephouse, 1999; George, Sitkin, & Barden, 2006; Kennedy & Fiss, 2009; Oliver, 1997). If appearing legitimate may hurt the bottom line, why would companies still conform to institutional rules or norms? After all, the very reason for the existence of an organization is to perform, not to appear legitimate.

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Despite the debate, most institutional theorists agree that legitimacy should improve the chance of business survival regardless of its impacts on performance (Baum & Oliver 1991; Carroll & Hannan, 1989; Oliver, 1997). However, there are few studies that directly investigate the influence of legitimacy on business survival. No previous studies have estimated if legitimacy could increase the possibility of survival at the expense of performance. Another shortfall of the existing literature is lack of practical implications or guidance for business managers on how to deal with legitimacy. Few publications attempt to link the institutional theories to management practices. Legitimacy is not treated as important or relevant to decision making as are many other factors.

The purpose of this study was to examine the linkages among legitimacy, performance, and survival. When avoiding losses is the major motivation of compliance to institutional pressures, organizations are willing to suffer upfront performance losses for legitimacy. However, there is no conflict between performance and legitimacy in the long run. Those performance losses are compensated by a better chance of survival in the long run. Using employer-provided health insurance (EPHI) data between 1997 and 2005 in the United States, this study investigate that companies offering health insurance were less likely to default than other employers. The article offers two major contributions to the existing literature. First, it provides empirical evidence if the growing health insurance cost decreases the chance of business survival. Second, it sheds lights on the practical relevance of legitimacy. EPHI coverage is a good example to demonstrate if expensive legitimacy can be paid off in the long run.

### ***Conceptual Framework***

The current literature on institutional theory suggests that isomorphic conformity is either technically or normatively driven (Burreto & Baden-Fuller, 2006; Kennedy & Fiss, 2009; Oliver 1997). For technically-driven isomorphism, organizations are looking for increasing organizational performance. When innovations from pioneer organizations show the benefits, others would follow, given promising returns from adoptions. In this scenario, isomorphism is expected for performance gains (Deephouse, 1999; Kennedy & Fiss, 2009; Tolbert & Zucker 1983; Westphal et al., 1997). In contrast, if isomorphic adoptions are normatively-driven, the direct motivation for isomorphism is a gain of legitimacy. In a normative environment, organizations rely on the approvals or sanctions (e.g., rules or laws) of powerful institutions surrounding them, such as governmental agencies and professional associations (DiMaggio & Powell, 1983; Meyer & Rowan 1977; Scott, 1995). In order to appear legitimate, many organizations are willing to sacrifice their performance to absorb the cost. In their classic article, Meyer and Rowan (1977) elucidated the potential conflicts between legitimacy and performance:

*A sick worker must be treated by a doctor using accepted medical procedures; whether the worker is treated effectively is less important. A bus company must service required routes whether or not there are many passengers. A university must maintain appropriate departments independently of the departments' enrollment (p. 355).*

The current literature on the institutional theory suggests two types of benefits derived from legitimacy gains: (a) access to resources (Arthur, 2003; DiMaggio and Powell, 1983; Meyer & Rowan, 1977; Oliver, 1997; Tolbert & Zucker, 1983), and (b) loss avoidance (Cardinal, Sitkin, & Long, 2004; Covaleski & Dirsmith, 1988; Garud, Jain, & Kumaraswamy, 2002; George et al., 2006; Kennedy & Fiss, 2009; Staw, Sandlands, & Dutton, 1981). In a contemporary society, institutions such as the state, professional and trade associations, accreditation agencies, unions, medias, and local communities are important sources of support for business operation (Scott, 1995). Conformity to institutional rules develops ties to well-established institutions, and thus provides greater access to resources (Baum & Oliver, 1991; Deephouse, 1999). The potential benefits of institutional compliance include higher consumer demand and better access to financial and human resources. Institutional relations can also be the source of direct government funding, strategically useful information, and lucrative contacts (Oliver, 1997). On many occasions, business success also requires the endorsement from social and political authorities, who can grant organizations "license to operate" or "ticket to play" (Glynn & Lounsbury, 2005; Scott, 1995).

When the purpose of establishing legitimacy is to avoid losses, performance improvement is no longer critical for isomorphic conformity. Instead, organizations are forced to live up to standards in their institutional environments. In these types of situations, decision making is reactive. However, one cannot argue that the expense of loss control is not technically rational.

Organizations make irrational decisions randomly due to their incompetency or mistakes by their managers, but systematic errors are not sustainable. As organizations depart from established norms or rules, they set up the groundwork for legitimacy challenges (D'Aunno, Sutton, & Price, 1991; Deephouse, 1996). They are subject to questions and actions challenging their legitimacy, reliability, and rationality (Ashforth & Gibbs, 1990; DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Porac, Thomas, & Baden-Fuller, 1989; Suchman, 1995). The cost of legitimacy challenges could be prohibitively high. Under this circumstance, survival is the first priority. Many organizations are willing to spend for compliance and insure for stability, though those expenses may slow down business operation or performance growth.

The major problem with most previous studies is that they used short-term performance as the single measure of performance outcome. Short-term profitability or productivity does not fully reflect the long-term health of business operations. A holistic way of evaluating the economic consequence of isomorphic adoptions is to compare the differences between the benefits and the costs of legitimacy-related adoptions in a longer period of time. The cost of conformity is the expense of establishing and maintaining legitimacy; and the benefits are the losses prevented or the resources obtained. A net gain of legitimacy is the difference between the cost and the benefit. A positive value of the net gain of legitimacy indicates that compliance is efficiently justified.

When the motivation of compliance is to achieve access to resources, the organizations expect the cost of conformity should be paid off by extra resources from external institutions. Consequently, firms will experience immediate performance improvements. In contrast, if the goal of adoptions is to avoid losses, there is no immediate performance growth followed by the legitimacy gain. Meanwhile, the cost for isomorphism adoptions will be reflected in financial reports of the focal organizations. Thus, the benefit of normative-driven legitimacy is largely ignored. The same problem also can be found in the decision making process in organizations. Private companies are driven by short-term profit. When the expense for legitimacy is high and its benefit is not obvious or immediate, managers are under pressure to justify their decision for normative-driven adoptions.

Unfortunately, the benefit of loss-avoidance is difficult for researchers to quantify. The catastrophic event is avoided by establishing and maintaining legitimacy, but the avoided potential cost was never shown in corporate financial or performance reports. Alternatively, business survival could be a reliable proxy for the long-term performance. Survival is the ultimate measure of performance. Organizations with higher long-term performance should be more likely to survive. Institutional theorists have long recognized that maintaining legitimacy is an effective way to improve the chance of organizational survival (Baum & Oliver 1991; Carroll & Hannan, 1989; Dacin, 1997; DiMaggio & Powell 1983; Meyer & Rowan 1983; Oliver 1997; Singh, House, & Tucker, 1986). These theorists proposed that compliance with institutional pressures creates ties or recognition from external institutions and thus reduces turbulence, maintains stability, and improves social support and prestige, which consequently would depress the chance of mortality. Some institutionalists pointed out that those certain legitimacy-seeking activities will assure future support from the institutional environment and avoid seriously adverse circumstances (Barreto & Baden-Fuller, 2006; DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Oliver, 1997; Zucker, 1987).

Despite the consensus, empirical studies directly investigating the relationship between organizational legitimacy and survival are rare. Baum and Oliver (1991) examined the impact of legitimacy on the survival of child care facilities in Toronto. They found that the child care providers with institutional linkage exhibited a significant survival advantage than did those competitors without the linkage. However, Baum and Oliver's study did not address the direct trade-off between performance and legitimacy. The child care providers with institutional linkage, in the form of a purchasing service agreement from Toronto Children's Services Division (CSD), will receive subsidies from CSD for their child care services. There is an obvious financial incentive for child care providers to obtain the institutional support.

In the current study, I examined whether legitimacy gains could boost the chance of survival at the expense of upfront performance by investigating employer-provided health insurance benefits (EPHI) in the United States. There are three reasons that I chose health insurance benefits for this purpose. First, health insurance was a voluntary benefit in most states in the United States during my study period. Thus, companies were supposed to have a choice whether or not to offer the benefit. Next, health insurance benefits have been around for more than half a century. Thus, most employers should have sufficient knowledge of it and make rational decisions toward it.

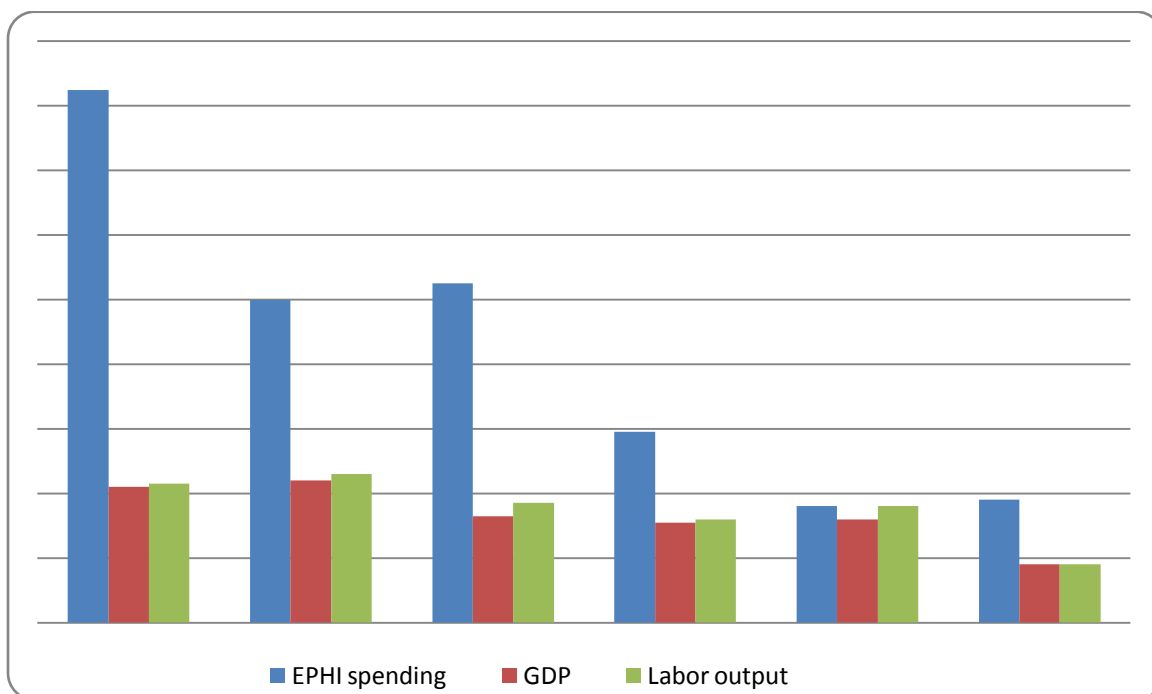
Finally, health insurance benefits are frequently claimed by managers to be a burden for companies (Enthoven & Fuchs, 2006; Fronstin, 2007; Moran, 2005). Its growing costs impose increasing pressure on companies' profitability. The findings in EPHI could provide profound implications for managerial practices.

***EPHI, Legitimacy, and Survival***

Offering health insurance to workers is not mandatory for companies in most states in the United States, except Hawaii and Massachusetts, until 2014. Health insurance is expensive and its costs keep growing. However, the growth of insurance premiums has not significantly decreased employers' coverage for employer-provided health insurance (EPHI). The historical reasons for offering EPHI were to build a loyal workforce and attract scarce workers during World War II when wage increases were constrained by federal regulations (Burton & Mitchell, 2003). Empirical studies mostly found that providing EPHI can reduce job turnover (Buchmueller & Valetta, 1996; Madrian, 1994). Unfortunately, along with the rapid growth of insurance costs, the efficiency argument for providing EPHI gradually faded away. According to Kaiser/HRET annual surveys, more than 70% of employers hiring 10 or more employees, and more than 90% of employers hiring 50 or more employees, offered health insurance between 1999 and 2010. Since most medium and large employers offer health insurance to their employees, the performance gains of providing EPHI become less obvious. Meanwhile, companies offering EPHI have to constantly deal with the rapid growth of health insurance costs.

Figure 1 compares the average annual growth rate among employers' EPHI spending, GDP, and labor output at the national aggregate level in the United States from 1950 to 2009. The growth of employers' EPHI spending in the private sector has been approximately twice as fast as the growth of GDP and labor output (adjusted for inflation) except in the 1990s, when those three were almost identical. The slowdown in health care costs in the 1990s was mainly due to the replacement of traditional health insurance plans by managed care plans, by which insurers and employers attempted to control the growth of health insurance premiums. Those cost-control tactics from the managed care plans worked temporarily in the 1990s, but soon reached their limits. The real annual growth for GDP and labor output were both 1.8% during 2000 to 2009, while employers' EPHI spending climbed 3.8% annually during the same period.

**Figure 1: Average annual growth rate of Employers' spending on EPHI, GDP and labor output**



Source: Employers' spending EPHI and GDP growth rates are from Bureau of Economics Analysis; Labor output growth rates are from Bureau of Labor Statistics

There is no evidence at the national level to support the argument that providing EPHI can improve short-term productivity. Employers have been paying more for EPHI, but the annual growth of productivity has been lagging behind. Companies in U.S. do not view adopting EPHI as a strategy to increase profits. In recent decades, many employers complained about the cost of EPHI and treated it as a burden to their business instead of a motivator for performance (Enthoven& Fuchs, 2006; Fronstin, 2007; Moran, 2005). The adoption of EPHI during my study period is mainly driven by the normative environment surrounding American employers.

Organizations typically obtain a much cheaper price of health insurance than their employees can in the individual insurance market. Group insurance can substantially reduce administration expenses and insurance loadings due to economies of scale. Moreover, large groups have greater bargaining power than individuals when they negotiate the price with insurance companies. According to the Congressional Research Service (1988), large firms can reduce the cost of providing health insurance by almost 35% relative to small groups. Most importantly, the Internal Revenue Service (IRS) excludes non-wage forms of compensation, such as health insurance and pensions, from taxable income. Employers' spending on the EPHI is not subject to income tax for both employers and employees. Ironically, if individuals purchase their own health insurance, most of the cost cannot be deducted from income taxes. Gruber and Potera (1994) estimated that the tax-deducted EPHI can reduce the cost on average about 27%, compared with health insurance that employees purchase with their after-tax income. The federal government basically discourages privately purchased health insurance other than EPHI.

Given the expensive cost of health insurance and the significant price advantage for EPHI, one should not be surprised that modern American society expects employers of decent size to be responsible for their workers' health care coverage (Barringer&Milkovich, 1998). Even many employers agree that offering health insurance is the "right thing" to do (Fronstin&Helman, 2003). The cost of not offering or eliminating EPHI could be prohibitively high. A deviation from the normative practice may cost the company in several ways: higher turnover, low productivity of the remaining work force, and institutional challenges. Employers who do not offer health insurance are likely to be deemed as cheap, negligent, or indifferent (Meyer &Rowan, 1977). Workers in a firm without health insurance are unlikely to consider their job a career and are reluctant to commit themselves to their jobs. Many employees will leave their jobs for jobs with health insurance coverage, and the remaining workforce lacks incentives for commitment. If a company plans to build a long-term relationship with workers, providing health benefits is inevitable. Otherwise, the company may keep losing its key workers, and the business is less likely to survive.

Many external institutions also attempt to force companies to adopt and maintain health insurance plans. Firms without EPHI or with meager health care benefits have to constantly defend their choices. Wal-Mart was under numerous attacks by state and local governments, unions, and public media due to its poor EPHI coverage for its workers. The company had to frequently fight its choice in court and in public. Enormous resources and efforts were devoted to justify its stand on EPHI. However, the largest employer in the United States with its well-known, low-cost strategy finally gave in to save its public image. In 2006, Wal-Mart significantly improved its health care coverage to catch up with its competitors: more workers were eligible for EPHI; more choices of health care were offered; and out-of-pocket spending for insurance premiums and prescription drugs was reduced (Barbaro& Abelson, 2007).

As the uninsured population expands, lawmakers are continuing to press for government intervention in the private insurance market. Many states have been working on a universal coverage or employer-mandated health care system, though Hawaii and Massachusetts are the only two states that have passed such laws so far. The federal government has also pushed for universal coverage of health insurance for decades. In March 2010, the Patient Protection and Affordable Care Act (PPACA) was passed. Under the new health care law, employers hiring 50 or more full-time employees will be subject to a \$2,000 penalty per worker each year if they refuse to pay for EPHI by 2014.

Providing decent health insurance is a sign that the firm is responsible, reliable, and productive. The purpose of adopting EPHI is to live up to the expectations of employees and external institutions, and avoid legitimacy challenges. EPHI does not improve performance in the short term, but it prevents catastrophic losses and increases the chance of organizational survival.

*Hypothesis 1: Employers offering EPHI establishes legitimacy and thus should be less likely to default than those not offering EPHI.*

One may argue that a negative association between offering EPHI and business death could be derived from the reverse causality: companies with better performance may be more likely to spend on EPHI. The correlation from ordinary-least-squares (OLS) regression models may not reflect the true impact of EPHI on business survival. To further investigate the casual relationship between EPHI and business survival, I examined business default over time. During my study period (1997 to 2005), the average annual premium for a single-coverage plan per enrollee was increased from \$1,916 to \$3,991. The rising insurance costs have imposed significant pressures on the bottom line of the business. If firms offering EPHI were doing well in 1990s, can they still be better off in the 2000s? Rising insurance costs will increase total labor costs and thus impose a negative impact on the bottom line, controlling for all other factors.

There is no evidence that employers are reducing their expenses on EPHI despite their efforts on controlling costs. According to the U.S. Bureau of Economic Analysis, employers' expenditure for health insurance steadily increased from \$6 billion in 1950 to \$510 billion in 2009 (both in 2005 dollars). Health insurance spending as a percentage of wage and salary also increased from 0.51% to 8.9% during the same period. In fact, around 90% of companies hiring more than 50 workers consistently offered EPHI during 1999 to 2009, despite the high EPHI costs and the downturns of the economy (Kasier/HRET Annual Survey 1999-2009).

When employers choose not to substantially scale back EPHI spending in response to the ever-growing insurance premiums, it implies that the cost of legitimacy challenge may still exceed the cost of offering EPHI. The higher the cost of health insurance, the higher the financial pressure on an individual worker to remain insured, and the higher the expectations for EPHI from society. Being sick is more risky in terms of financial losses in later years. The demand for insurance is increased at the individual level, and the pressure is transferred to employers, since they can obtain a much cheaper insurance premium through EPHI. Organizations offering EPHI benefit have a better chance of survival despite the increased of offering health insurance.

*Hypothesis 2: The mortality gap between employers offering health insurance and employers not offering the benefit should not shrink over time.*

### **Data and Regression Analysis**

Two establishment-level datasets are used in this article: the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) and the Longitudinal Business Database (LBD). The MEPS-IC is sponsored by the Agency for Healthcare Research and Quality (AHRQ) and is conducted by the U.S Census Bureau. The MEPS-IC provides detailed EPHI information and some information on establishment characteristics. Approximately 30,000 establishments are included in the survey every year. Large corporations may have more than one establishment included in the survey if they have multiple locations. Those establishments can be identified by a dummy variable if they belong to a corporation with multiple establishments. MEPS-IC is designed to represent the business population in the United States. It is basically a cross-sectional dataset; different establishments are surveyed in different years. Very few establishments were surveyed in multiple years. The data used in this article are from 1997 to 2005.

The survey of MEPS-IC covers establishments with one or more employees. I only included establishments with ten or more employees in my sample. Many small establishments are family businesses or professional offices with a few partners, such as law firms or medical clinics (Zawacki& Taylor, 2005). In these establishments, EPHI is purchased for the owners or the partners of the business rather than for the employees. The focus here is health insurance purchased by employers for employees<sup>1</sup>.

The LBD covers all businesses in the United States with IRS filings since 1976, and records the birth and death of each establishment. I thus relied on the LBD for its information on business survival. LBD is a panel data and provides birth and death information for all IRS-registered businesses during my study period. These two data sets were merged through establishment identifiers. Establishments in the public sector were excluded.

The dependent variable is the *death of business*, which is equal to 1 if the establishment went out of business one year after the MEPS-IC survey and 0 otherwise.

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<sup>1</sup> I also ran the same set of regressions with establishments hiring more than one employee. The direction and significance of the coefficients in most models are almost identical to the regressions reported in this article, though the magnitudes of the coefficients differ.

I had to exclude establishments offering EPHI in 2005 from the sample since survival information for 2006 was not available at the time for this study. The covered period of the sample in terms of EPHI coverage is thus from 1997 to 2004. Since the dependent variable is a dummy variable, I employed a probit model for all regressions. Among the establishments in the sample, 2.4% went out of business one year after the survey (see Table 1).

The key independent variable is *offer EPHI*, which is equal to 1 when the establishment offered EPHI in the survey year, 0 otherwise. About 85.5% of the establishments offered health insurance in the sample (see Table 1). Other independent variables include establishment size, which is equal to the number of employees in the establishment; unionization; share of female workers; share of part-time workers; share of workers aged 50 and above; share of highly-paid workers (paid more than \$15 per hour before 2000, \$21 from 2000 to 2003, \$22.5 in 2004, and \$23 in 2005); business age; multiple-unit, which is equal to 1 if the establishment belongs to a firm with multiple locations and 0 otherwise; and state unemployment rate.

Presumably, if a firm has stayed in business for some time and grown larger, it should be in a stable stage of its life cycle and thus less likely to default. Previous studies provide evidence that larger and older firms are more likely to survive (Agarwal&Gort, 2002; Brock & Evans, 1989; Dunne, 1989). Business failure rate is high during a recession. Thus, I expected the death rate to be positively correlated with the unemployment rate. The share of highly-paid workers is a proxy for human capital and should thus be negatively correlated with the death of the business. Part-time workers are typically less skillful. Thus the share of part-time workers should increase the possibility of business death. There is no consistent previous evidence that shares of female, older, or unionized workers have impacts on business survival.

Table 1 presents the descriptive statistics. Due to the restrictive disclosure rules of the Census Bureau, the values of maximum and minimum for each variable and correlations among variables cannot be presented here. I ran the correlation among variables in the Research Data Center of the Census Bureau. The inter-correlations among variables range from 0.003 to 0.326. Thus, there is no multicollinearity among the variables used for this study.

**Table 1: Descriptive Statistics**

Variable	Number of establishment	Mean	Standard Deviation
Death of business	69678	0.024	N/A
Offer EPHI	69678	0.855	N/A
Establishment size	69678	143	579
Share of female worker	69678	0.469	0.295
Share of older worker	69678	0.181	0.159
Unionization	69678	0.051	0.184
Share of highly-paid worker	69678	0.214	0.254
Multiple unit	69678	0.387	N/A
Share of part-time worker	69678	0.215	0.281
Establishment age	69678	14.6	8.813
Unemployment rate	69678	0.048	0.011

### Regression Results: How Did Offering Health Insurance Affect Business Survival?

Table 2 reports the regression results for the impact of offering health insurance on business survival. OLS regressions assume that the variance of error terms is not correlated with independent variables, where the error term is homoskedastic. Otherwise, the error term is heteroskedastic. However, homoskedastic error terms are rare (Stock & Watson, 2003). For example, larger firms are likely to have larger variance-of-error terms. The estimated results are not reliable when the OLS assumption is violated. To correct for heteroskedasticity, robust standard errors are produced for all regressions.

Model 1 includes all independent variables except *offering EPHI*. The results indicate that large businesses with multiple locations are more likely to default; while companies with higher union coverage, more part-time workers, and longer experience have better chances of survival. MEPS and LBD data are across states, years, and industries.

A major potential problem for a dataset across a few different sections is the possibility of missing variables. For example, variables are correlated if the establishments are located in the same state for their shared state-specific characteristics. However, it is impossible to control for those specific factors across states, years, or industries. Many factors, such as differences in the political environment across states, industry norms, and changes in national attitudes towards health insurance over time, are difficult to measure. Those unobserved variances, if correlated with the dependent variable and/or independent variables, will bias the results of the OLS regression models. Thus, the results from Model 1 may not be reliable due to missing variables.

Model 2 includes three sets of dummy variables (fixed effect models): dummies for state, year, and industry (using 1-digit-SIC industry codes). The use of dummy variables helps control for unobserved factors across those different regions (Bergh 1993; Hitt, Bierman, & Shimizu, 2001; Somaya, Williamson, & Lorinkova, 2008). Detailed explanations for the methodology of using dummy variables or fixed-effects models can be found in many econometrics textbooks (Kennedy, 1998; Stock Watson, 2003).

**Table 2: Probit Regression Results for the Death of Business**

Variables	Model 1	Model 2	Model 3
Offer EPHI			-0.124*** (0.031)
Establishment size	5.28e-5*** (1.2e-5)	5.27e-5*** (1.25e-5)	5.28e-5*** (1.25e-5)
Share of female worker	0.045 (0.037)	0.094** (0.045)	0.089** (0.045)
Share of older worker	-0.045 (0.072)	0.021 (0.073)	-0.023 (0.073)
Unionization	-0.11* (0.062)	-0.069 (0.066)	-0.068 (0.066)
Share of highly-paid worker	0.086** (0.042)	0.139*** (0.046)	0.164*** (0.046)
Share of part-time worker	-0.106*** (0.042)	-0.127*** (0.045)	-0.168*** (0.046)
Multiple Unit	0.047** (0.022)	-0.062*** (0.023)	-0.042* (0.024)
Age of the establishment	-0.02*** (0.001)	-0.019*** (0.001)	-0.018*** (0.001)
Unemployment rate	-0.87 (0.088)	-1.301 (2.397)	-1.344 (2.399)
Constant	-1.668*** (0.051)	-1.904*** (0.175)	-1.764*** (0.187)
State, year, and industry dummies	No	Yes	Yes
Total PseudoR <sup>2</sup>	0.02***	0.0457***	0.0467***
Δ PseudoR <sup>2</sup>	0.02***	0.0257***	0.001***
Number of establishments	69,678	69,678	69,678

Note:

1. Robust standard errors are included in the brackets
2. \* p < .10; \*\* p < .05; \*\*\* p < .01.

The results from Model 2 demonstrate the effects from the three sets of dummy variables. The Pseudo R-square increased from 0.02 to 0.0457. Values and/or signs of many coefficients also changed. As expected, establishments that have been in the business for a longer time are more likely to survive. A larger share of female workers increases the chance of a business death. The impacts of establishment size were mixed. While an establishment belonging to a company with multiple units is less likely to default, an establishment with more employees is more likely to go out of business. Contrary to expectations, the share of highly-paid workers is consistently and positively associated with the death of the business, and the share of part-time workers has a negative impact on the default rate.



Overall, the results in Table 2 indicate that costs are important factors for business survival. Hiring a high-wage workforce makes the company more vulnerable to default. In contrast, hiring more part-time workers make the company nimbler and less likely to go bankrupt.

*Offering EPHI* is included in Model 3. The probit coefficient of offering EPHI is significantly negative. It confirms Hypothesis 1 that offering EPHI will reduce the probability of default. The Pseudo R-squared is increased by 0.001 by offering EPHI. It is relatively a small contribution to the explained variance. During my study period, offering EPHI was still a normal practice for employers. Companies who were expected to offer EPHI did so, for the most part. More than 85% of establishments in the sample offered health insurance. I am not surprised that offering EPHI is not a major contributor to business default.

The marginal effect of the probit coefficient is 0.007. The probability of default is reduced around 0.007 by offering EPHI. The effect from offering EPHI is considerably large given that the mean default rate of the sample is 0.04 (see Table 1). The findings here suggest that spending on health insurance improves the chances of business survival. When the efficiency gains exceed the costs of offering the insurance, employers achieve sustainable advantage by establishing and maintaining legitimacy.

### Regression results: Did Rising Insurance Costs Affect Business Survival?

In order to test the impact of health insurance cost overtime, I employed two separate regressions for two 3-year periods: 1997–1999 (Period I) and 2002–2004 (Period II). I then compared the coefficients of offering EPHI before and after the recession of 2001. The exercise here was to examine if the rising insurance cost and the recession have eroded the benefits of offering EPHI.

Only about 0.5% of establishments dropped health insurance benefits in my sample, despite the rapid growth in health insurance costs in the study period. Almost all establishments that offered EPHI in Period I continued the benefits in the following periods as long as they did not go bankrupt. Therefore, dropping health insurance was not a strategy for cost control.

The results for *offer EPHI* in separate regressions for two time periods are shown in Table 3. The coefficients of offering EPHI are significantly negative in Period I and Period II. The effect of offering EPHI in improving business survival did not decline over time. Indeed, it actually increased. The gap in the business default rates between establishments offering health insurance and those not offering it did not shrink, which supports Hypothesis 2.

**Table 3: Separate Regressions in Two Time Periods**

<b>Panel A: regressions without state dummies, year dummies, or industry dummies</b>									
Time period	Coeff. of offer EPHI	Robust error	Std.	95% interval	confident	No. of Estab.	Pseudo square	R-	
1997-1999	-0.136***	0.052		(-0.239 -0.034)		24,385	0.040		
2002-2004	-0.205***	0.051		(-0.305 -0.105)		27,461	0.024		
<b>Panel B: regressions with state dummies, year dummies, and industry dummies</b>									
Time period	Coeff. of Offer EPHI	Robust error	Std.	95% interval	confident	No. of Estab.	R-square		
1997-1999	-0.130**	0.054		(-0.234 -0.025)		24,385	0.056		
2002-2004	-0.183***	0.052		(-0.285 -0.081)		27,461	0.043		

Note: \*  $p < .10$ ; \*\*  $p < .05$ ; \*\*\*  $p < .01$ .

### Discussion

According the regression models in Tables 2 and 3, establishments offering EPHI in the U.S. were less likely to go out of business than those who did not offer health insurance. Furthermore, the gap in the failure rate between establishments offering health insurance and those not offering the benefit did not shrink over time, despite the increase of health insurance costs. The regression results are consistent and robust. The findings suggest that spending on EPHI, despite its high cost, should be eventually paid off by a better chance of survival.

The datasets employed by this study are the best data available in the United States that could examine the relationship between EPHI and business survival. AHRQ and the US Census Bureau had put in place an authentic survey design for MEPS to represent employers' sponsored health insurance in all industries and across all regions. LBD is the largest business survival dataset in the U.S. It tracks the birth and death of all businesses with IRS filings. The results produced by those datasets provide a reliable picture of the impact of EPHI on business survival.

A major concern of this study is the reverse causality between EPHI and business survival. Businesses with better performance (potentially with a better chance of survival) may be more likely to adopt EPHI. The problem could be substantially solved if performance of the business is controlled. Unfortunately, there is no performance data available to match with MEPS and LBD. As discussed in previous sections, avoiding legitimacy challenges is the major reason that organizations adopt EPHI. Performance may not be as critical as intuitional pressures for the decision making. The regression models in Tables 2 and 3 tried to control many other factors that could affect the adoption of EPHI, such as industry, business size, compensation, union coverage, and so forth.

Further, the results are consistent overtime. If this reverse causality does exist, we could observe a decline of this negative relationship between offering EPHI and business death from Period I to Period II, given the significant increases of employers' spending on health insurance. The economic conditions in the United States are comparable between these two time periods, but companies offering health insurance had to bear higher costs in Period II. Consequently, their advantage in the chance of survival might be diminished. However, the results in Table 3 suggest that offering health insurance continued to lead to a higher possibility of survival in more recent years.

### **Conclusions**

Employers in the United States have been complaining about the growing cost of EPHI. However, they continue to sponsor the health care coverage for their workers. The growth of employers' EPHI expenses has consistently exceeded the growth of workers' productivity and national GDP. Using MEPS-IC data from 1997 to 2005, this study confirms that companies who provided EPHI were less likely to default. More importantly, the findings here imply that organizations are willing to spend to avoid legitimacy challenges. The losses in short-term performance are expected to be compensated by avoiding catastrophic disaster and a lower probability of default. The study of EPHI provides a good example to demonstrate the importance of legitimacy to business operation. Managers should look beyond short-term profits and steer their organizations onto a long-term and sustainable path.

The impact of legitimacy is still a myth to many organizational managers. More studies should be conducted to explore its impact. This study did not examine the direct consequences of deviance from social norms and its potential cost. It would be useful to show managers the losses from legitimacy challenges. Future studies should investigate possible difficulties experienced by firms without EPHI coverage, such as employee turnover rate, employee morale or commitment, and lawsuits. Besides EPHI, there are many other management practices that are adopted to establish normative-driven legitimacy. It is inaccurate to use short-term performance as the sole measurement of the outcome of isomorphic conformity. Considerable further research should be conducted to examine the correlation between legitimacy and survival.

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