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State Health Insurance Mandates, Consumer Directed Health Plans and Health Savings Accounts

Are They a Panacea for Small Businesses?

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PREFACE

Small firms in the United States that seek to offer health insurance to their employees have historically reported problems with the availability and affordability of their options. The cost of health insurance has been the primary concern of small business owners for several decades. This paper examines the effect to date of two types of policy initiatives that could have substantial benefits for small business: state health insurance mandates and key components of CDHPs-HSAs, HRAs and high deductible health plans. It summarizes the key policy issues, reviews existing research evidence on the effect of these initiatives on small business and offer some conclusions for policymakers. This research was conducted within the Kauffman-RAND Institute for Entrepreneurship Public Policy in the RAND Institute for Civil Justice.

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EXECUTIVE SUMMARY

Small firms in the United States that seek to offer health insurance to their employees have historically reported problems with the availability and affordability of their options. The cost of health insurance has been the primary concern of small business owners for several decades. In 2004, two-thirds of small business owners listed health care costs as a critical problem – a proportion that increased by 18 percentage points between 2000 and 2004 (NFIB, 2004). Small businesses are more likely to report problems with their health care availability and cost than larger businesses (Brown, Hamilton and Medoff, 1990; McLaughlin, 1992; Fronstin and Helman, 2000). Only 43 percent of firms with fewer than 50 employees offer health insurance, compared to 95 percent of firms with 50 or more employees (AHRQ, 2003). Extending health insurance to workers and the families of workers in small firms continues to be a pressing issue.

Health insurance plans offered to small businesses tend to suffer from limitations that are widely acknowledged. First, small group health insurance premiums have varied dramatically depending on the expected cost of the group (Cutler, 1994). In addition, the health insurance policies offered to small firms often contain pre-existing condition clauses that exclude expensive conditions from coverage (U.S. Congress, 1988). Some insurers simply do not offer policies to small firms, resulting in limited choices for small firms. These limitations, along with double-digit increases in health insurance costs and consumer dissatisfaction with managed care, have led to both employers and government policymakers seeking new ways to contain health care costs.

Policymakers have pursued various avenues in order to address the problems faced by small businesses in the market for health insurance. In this paper, we provide a summary of the success of two different approaches: one that is regulatory in nature and the other that is market-based. The first is state health insurance mandates. In an attempt to address problems with the small group market, most states passed small group health insurance reforms in the 1990s. These reforms have three key characteristics. First, they restrict insurers' ability to deny coverage to small firms. Second, they

restrict premium variability and finally they encourage portability when employees move from job to job. In this chapter, we summarize the evidence of the influence these mandates had, not only on insurance premiums and health insurance availability, but also on business size.

An alternative solution to the health insurance crisis that has been advocated by the Bush administration and by some policy analysts is the development of consumer directed health plans (CDHPs). These plans aim to control costs by increasing consumers' financial responsibility and involvement in their health care choices. Since CDHPs are potentially less costly than traditional health plans and may appeal to younger workers with low health care demand, these plans may be well suited to workers in small businesses (Laing, 2005).

In this paper, we examine the effect to date of two types of policy initiatives that could have substantial benefits for small business: state health insurance mandates and key components of CDHPs–HSAs, HRAs and high deductible health plans. We summarize the key policy issues, review existing research evidence, including our own research, on the effect of these initiatives on small business and offer some conclusions for policymakers.

SMALL BUSINESSES TYPICALLY FACE RESTRICTED HEALTH INSURANCE OPTIONS

The difficulties that small firms face in obtaining and maintaining health insurance for their employees have been widely documented (Brown, Hamilton and Medoff, 1990; McLaughlin, 1992; Fronstin and Helman, 2000). Only 43 percent of firms with fewer than 50 employees offer health insurance, compared to 95 percent of firms with 50 or more employees (AHRQ, 2003). This low proportion has been attributed, in part, to the high administrative cost of health insurance for small firms, the low demand for insurance among workers in these firms, and the unwillingness of insurers to take on small firm risks (McLaughlin, 1992; Fronstin and Helman, 2000; Monheit and Vistnes, 1999).

According to surveys conducted by the National Federation of Independent Business (NFIB, 2004), the cost of providing health insurance has been the number-one concern of small business owners since 1986. In 2004, nearly two-thirds of small business owners cited it as a critical issue. While the cost of health insurance is a

concern for all employers irrespective of size, it is well documented that the administrative cost of health insurance is substantially higher for small employers – 20 to 25 percent of employee premiums in small firms compared to 10 percent of premiums in large firms – and is one possible reason for why so few small businesses offer health insurance to their employees (GAO, 2001).[1] Several studies have shown that small firm employees that do not have health insurance are relatively young and healthy, and are more likely to have higher job turnover, and hence have a lower demand for employment-based health insurance (Monheit and Vistnes, 1994; 1999; 2006). Even though the demographic characteristics of the employees of small firms as a whole (insured and uninsured combined) appear to be quite similar to those of other employees, small firms employ a slightly larger share of workers under age 25, and a much larger share of workers over age 65 (Headd, 2000). This suggests that small firms are more likely to employ individuals with a relatively low demand for employer-sponsored health insurance: the youngest and healthiest workers but also the oldest workers who are eligible for health insurance coverage under Medicare.

STATE HEALTH INSURANCE MANDATES SEEK TO EXPAND SMALL BUSINESS OPTIONS

To address the aforementioned problems with the small group market for health insurance, virtually all states passed some form of small group health insurance reform in the 1990s. Although the extent of and approach to the reforms vary from state to state, they contain broadly similar elements. These elements include:

Rating Reforms

State reforms have placed restrictions on the factors that can be used to set health insurance premiums, and/or limited the rate variations to specified ranges. Most states' premium rating reform follows the rate-banding approach that limits insurers to a set number of classes for which they can charge separate rates. Age,

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[1] The lower administrative costs in large firms may be due to the fact that large firms tend to have a benefits manager to coordinate health claims and complete paperwork. The benefits office in large firms acts as an intermediary between employees and insurers, reducing administrative burden for large firm insurers. Large firms are also less likely to drop insurance resulting in lower transition costs for insurance companies.

geographic location, family size, and group size are often allowable factors that can be used to set classes. The reform restricts the variation in premiums that the insurer can charge to firms within each of these classes and restricts the variation allowed between business classes. Most states allow nine business classes, and about 15- to 30-percent premium variation within and between classes, although these numbers vary somewhat from state to state. Rating reforms do not regulate the dollar value of the premium; however, they do often restrict the percentage increase in premiums from year to year. About 10 states have implemented modified community ratingwhere the use of claims experience and employee health status in setting premiums has been restricted, and premiums can be set only on the basis of demographic factors such as family size and age. Community rating, the strongest form of rating reforms, has only been implemented by a few states, and disallows variation in premiums due to demographic and health factors.

It is plausible that these restrictions on premiums may have limited premium variability for a small firm. In addition, these reforms may have succeeded in reducing premiums for small firms that employ individuals with high health costs. The rate banding approach is the most common premium rating reform, and this form of reform often allows claims experience to be used to set premiums. Therefore, in practice, in most states premiums still do vary substantially due to claims experience and the health characteristics of the insured (GAO, 1995; Hall, 1999).

Guaranteed Issue and Guaranteed Renewal Reforms

Every state that has passed small group insurance reform, except Georgia, has included guaranteed renewal reform in its package. This reform requires insurers to renew coverage for all groups, except in cases of non-payment of premium or fraud. Guaranteed issue legislation, on the other hand, is excluded from the reform packages of eight states that have passed guaranteed renewal laws. Guaranteed issue legislation requires insurance companies to offer health insurance coverage to any small employer in the state. Some guaranteed issue legislation requires insurance companies to offer only one or two specific benefit plans, while others require insurers to offer every small group health plan they sell to each small

employer. Guaranteed issue limits the ability of insurers to circumvent rating reform by insuring only low-cost, small firms.

Pre-existing Condition Limitation and Portability Reforms

Health plans often impose waiting periods for coverage. These waiting periods may pertain to all coverage or coverage for pre-existing health conditions. In some instances, health plans permanently exclude coverage for specific health conditions. State reforms limit the length of time for which pre-existing health conditions can be excluded from coverage. Most states limit the waiting period for coverage for pre-existing conditions to a maximum of 12 months, and allow only conditions present in the past six months to be defined as pre-existing.

Portability reforms ensure that an individual who is covered by health insurance on a previous job does not face any new pre-existing condition exclusions or waiting periods as a result of changing jobs. Note that portability reforms do not place any restrictions on either premiums charged by insurance companies to small firms or premium contributions that firms charge workers. Portability and pre-existing condition limitation laws have been enacted at the same time in most states.

Pre-existing condition exclusion limitations are reinforced by the federal Health Insurance Portability and Accountability Act (HIPAA) of 1996. In essence, these laws virtually remove small group insurers' ability to exclude coverage for certain conditions or to deny individuals coverage in small firm policies. Therefore, after the passage of these laws, charging higher premiums, subject to the state's premium rating reforms, may be small group insurers' only available underwriting option.

Small group health insurance reforms regulate the type of health insurance that insurance companies can sell to small firms. They have no direct effect on the insurance offered to other firms, although they may have an indirect effect if insurers adjust policies in the large group market in order to make it easier to comply with the regulations in the small group market.

STATE MANDATES HAVE NOT IMPROVED SMALL BUSINESS ACCESS TO HEALTH INSURANCE

Research examining the effect of state insurance mandates on health insurance coverage, firms' propensity to offer coverage, and health insurance premiums generally has shown a small effect or no effect on small firms' propensity to offer health insurance or on employees' insurance coverage (Sloan and Conover, 1998; Jensen and Morrissey, 1999; Zuckerman and Rajan, 1999; Monheit and Schone, 2004; Buchmueller and DiNardo, 1999; Hall, 1999; Marquis and Long, 2002). A few studies do find modest effects of the reforms on insurance offer rates and insurance coverage; however, the direction of the effects varies between the studies (Uccello, 1996; Hing and Jensen, 1999; Simon, 2005; Buchmueller and Jensen, 1997). In addition, some work has demonstrated that stronger reforms increased insurance coverage for high-risk workers relative to low-risk workers (Monheit and Schone, 2004, Davidoff et al., 2005). Most of these studies exploit cross-sectional and time-series variation in the implementation of state reforms to identify the effect of the reform on insurance coverage and do not focus on analyzing employment and employment flows in small and large firms as a result of the reforms.

The overall effect of reforms is likely to depend on the characteristics of those reforms. The Health Insurance Association of America estimates that guaranteed issue provisions have only a small impact on premiums – 2 to 4 percent (Thompson, 1992). Jensen, Morrisey, and Morlock (1995) found no evidence that guaranteed issue, pre-existing condition limits, or laws limiting exclusions on the basis of condition or occupation resulted in premium increases. Premiums in New York, which enacted very stringent rating reforms in the small group market, rose about 5 percent during the first year that community rating was in effect (Chollet and Paul, 1994). Minnesota, which adopted restrictions on premium rate variations, also experienced premium rate increases of less than 5 percent in the year after it enacted these rating reforms in combination with a number of other small group reforms (Blumberg and Nichols, 1996). Two existing studies examine the labor market effects of small group health insurance reform and find small or no effects on mobility among workers with high expected health costs and no effect on wages or hours worked (Kapur, 2003; Kapur et al., 2005; Kaestner and Simon, 2002).

Because of the way in which these insurance mandates were implemented – applying only the insurance products offered to firms below a certain size threshold — we were also curious as to whether the mandates had any unintended effect on the size of firms. While there is no prior research on the effect of small group health insurance reforms on the size of small firms, a few studies have examined the effect of other regulations on business size. Schivardi et al. (2004) examine the effect of employment protection legislation on business size in Italy. Employment protection legislation, which imposes higher unfair dismissal costs on firms that employ more than 15 employees, was found to reduce business size and growth for firms that were just below the size threshold. Using the same data source, Garibaldi et al. (2004) find results that are consistent with Schivardi et al. (2004). The German Protection against Dismissal Act allows firms above a certain size threshold to sue for wrongful termination. The threshold size has varied over time. Verick (2004) examined the effect of this size threshold on firm size and found mixed effects.

We undertook a study to examine whether these was a size effect (Kapur et al., 2006). We summarize our findings in the next section of this chapter.

STATE HEALTH INSURANCE MANDATES HAVE HAD UNINTENDED EFFECTS

In our study, we use data from a nationally representative employer-based survey conducted by KMPG Consulting (now BearingPoint). This data source contains information on health insurance offering, number of workers employed in the firm, and the industry to which the firm belongs.[2] Because most states adopted small business health insurance reforms during the early 1990s, we use the surveys from 1993, 1996, and 1998. These were the only years during the 1990s in which the survey included smaller firms with fewer that 200 employees.

[2] We used data on the number of workers employed in the entire firm rather than in a single location because health insurance decisions tend to be made at the firm level rather than the plant level. However, as a sensitivity check, we re-estimated our models for the sample of single location firms. We found results that were qualitatively similar, but far less precise, primarily because we lost about half the sample in conducting this check.

We also use a data set that characterizes the presence of a small business health insurance reform for any given state and year, as well as the detailed characteristics of the reform if one exists. These data comes from the state small group reform survey conducted by Simon (2005) and Marquis and Long (2002). Our analysis used the following individual components of the reforms: the upper and lower limit of the firm size thresholds for the reform to be applicable. The health reform data and the firm level survey were merged using the year of survey and the state of the firm. Small group health insurance reform is coded using a binary indicator of having a reform or not.

Table 1 provides a data summary of the state health reforms. As the table indicates, in 1993, there were 14 states that had no reform, while by 1997, all states except for one (Michigan) had adopted some type of small business health care reform. Most states have a moderate reform that includes restrictions on premiums using a rate band approach rather than by imposing community rating or modified community rating.

Table 1.
State Counts by Reform Level and Year

Reform Level	1992	1993	1995	1996	1997	1998
No reform	27	14	5	4	1	1
Reform	23	34	44	44	48	48

Note: Does not include Hawaii, but does include Washington, DC.

Table 2 presents the size upper limit for small-group health insurance reforms. Most states with a reform have either 25 or 50 employees as the upper size threshold. In our data, 81 percent of state-year observations have thresholds at either 25 or 50. Over time, states tended to raise their thresholds and the number of states with upper size threshold of 25 employees decreases. By 1997 there are no states that have 25 employees as the upper size threshold.[3]

[3] The lower size limit for the reforms was 1, 2, or 3 employees, depending on the state and year. However, California in 1993 had a lower threshold of 5 employees. Our data set only includes firms that have 3 or more employees. We have re-estimated our models, excluding Californian firms with less than 5 employees in 1993 (N=8), and find virtually identical results.

Table 2.
State Counts by Firm Size Upper Limit
for State Small-Group Health Insurance Reform by Year

Firm Size Upper Limit	1992	1993	1995	1996	1997	1998
25	18	24	12	11	0	0
26-50	5	11	30	32	48	48
51-100	0	1	3	3	1	1
No reform	27	14	5	4	1	1

Note: Does not include Hawaii, but does include Washington, DC.

As mentioned earlier, the definition of a small firm varies between states and in some cases over time within the same state. The upper size threshold for a small firm varies between 25 and 100 employees depending on the state and year. The lower threshold varies between 1 and 5 employees.

Small group health insurance reform may affect the scope, price, and availability of health insurance for small firms. For the sake of exposition, let us assume that there are two types of small firms – "low cost" firms that employ a high proportion of young and healthy workers, and "high cost" firms that employ workers with high expected health costs (either older workers or sick workers). Small group health insurance reforms prevent insurers from excluding pre-existing conditions from insurance coverage, implying more complete health insurance for all small firms. However, in states that impose tight premium rating restrictions and guaranteed issue, the combination of the two types of reforms may drive insurers to set premiums in a way that increases premiums for low cost firms and reduces premiums for high cost firms. Alternatively, the regulations might affect the completeness of the plans offered if insurers find it impossible to offer comprehensive plans to all small firms at a reasonable price. In states with weak premium rating restrictions, premiums may be affected relatively little.

Guaranteed issue and renewal laws directly affect the availability of health insurance. In particular, in states with guaranteed issue, high cost firms that may have had problems obtaining access to health insurance should find obtaining a policy much easier. However, the overall burden of complying with the state small group health insurance regulations may be a disincentive for offering health insurance in the small group market for some insurers

and insurers may consider exiting the market in highly regulated states or consider reducing their marketing efforts in those states. As a result, the reforms may have an adverse effect on availability for low cost firms. Therefore, the reforms may have heterogeneous effects on price and availability, depending on the strength of their component provisions and the composition of low cost versus high cost small firms.

In our empirical estimation (see Kapur et al., 2006), we focus on firms that offer health insurance right around the legislative threshold – since it is their decisions that are most likely to be affected by the reform. We estimate whether reform states are more likely to have a higher or lower proportion of firms offering health insurance under the threshold compared with non-reform states. If firms value the reforms, the proportion of firms under the threshold relative to over the threshold should be higher in reform states as firms attempt to manipulate their size to remain below the reform threshold. If firms do not value the reforms, they will do just the opposite – expand so that they are no longer subject to the reforms, and then the proportion of firms under the threshold relative to firms over the threshold will be lower in reform states.[4]

Our analysis provides evidence that in states that implemented these reforms, firms offering health insurance are significantly more likely to be just above the threshold than just below the threshold. In states that implement a 25 employee threshold, we estimate that 31 percent of firms with 20-30 employees would fall below the 25-employee threshold, compared with 75 percent in states that did not have a reform. In states that implement a 50-employee threshold, we estimate that 65 percent of firms with 45-55 employees would fall below the threshold, compared with 82 percent of firms with 45-55 employees in states that did not have a reform. The magnitudes of

[4] To capture proximity of the size of the firm to the reform threshold, we restrict our analysis to states that implemented a reform with an upper size threshold of either 25 or 50 and use separate models to examine the effect of the each threshold. Since the inherent distribution of firms around the 25 size threshold differs from the distribution of firms around the 50 size threshold, we cannot estimate a model that compares distributional changes across different thresholds. Our empirical strategy is to focus on a narrow set of firms around the threshold and study whether the proportion of firms under the threshold differs across reform and non-reform states.

these predicted changes in firm size distribution are large; however, they apply to a relatively small segment of the firm distribution that is clustered around the regulatory threshold.

These findings suggest that small employers near the threshold that offered health insurance found the state health insurance mandates to be onerous, and increased their size in order to avoid the regulated market. As expected, our analyses suggest that the ability of firms to make such an adjustment was greater for firms that were closest to the regulatory threshold. The magnitude and statistical significance of the effect declined as we expanded the size of the band around the threshold under consideration.

Our study shows that the small group health insurance reform implemented by states in the mid-1990s likely had unintended consequences. The reforms appear to have led firms to distort their firm size decisions in order to avoid the more regulated market. What happened to the health insurance market in reform states to lead to these outcomes? There is evidence from previous research to suggest that the implementation of reforms increased the breadth of health insurance policies, but also led to an increase in premiums as insurers that find the small group regulations burdensome exit the market. For example, in New York, premiums were estimated to have risen for about 30 percent of the insured and 500,000 New Yorkers were estimated to have cancelled their individual or small group policies after the implementation of reforms (NCAP, 1994). In Oregon, insurers were reported to have exited the small group market in response to the reforms.[5] However, Buchmueller and DiNardo (2002) compared the New York market that had community rating (strong reform) to the market in Pennsylvania and Connecticut (states that did not have strong reform) and found no evidence that insurance had fallen in New York.

These reports suggest that the reforms may have resulted in changes in the small group market that were valued by some, but not other small firms. High cost firms (that is, firms that employ workers with high expected health care costs, as defined in the conceptual framework section) that previously couldn't obtain health insurance are able to access coverage after the reform. Some of these

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[5] http://www.bizjournals.com/portland/stories/1998/01/26/newscolumn2.html.

firms may value the access to health insurance and the broad coverage offered under reform, even if it means higher premiums. Low cost firms (that is, firms that employ workers with low expected health care costs), on the other hand, may place little value on the breadth of coverage offered under reform. For example, many small firms hire a younger, healthier workforce and have higher worker turnover than larger firms (Kapur, 2004), and these workers may not value the more complete policies and higher premiums associated with small group health insurance reforms. If it is at all feasible, these firms may increase their firm size in order to avoid the reform and purchase insurance in the unregulated market.

CONSUMER DIRECTED HEALTH PLANS COULD EXPAND OPTIONS FOR SMALL BUSINESSES

Our review of effect of state health insurance mandates suggests that this regulatory approach to improving access to health insurance for small businesses was not terribly successful in terms of expanding access to health insurance for small businesses. Recently, policymakers have advocated an alternative approach to achieving this aim. Since high and increasing costs of health services and health insurance are perceived as the primary barrier to access, new innovations in the health insurance market called consumer directed health plans are designed to encourage individual responsibility in health care choices in the hope of increasing price sensitivity, controlling cost escalation, and ultimately improving access. This approach would yield benefits for all businesses, but particularly for small businesses that are often shut out of the traditional insurance market because of high costs of coverage.

The basic logic behind this argument is that CDHPs change individual incentives by making consumers financially responsible when they choose costly health care options (Robinson, 2003). Ultimately this change in individual incentives should reduce the costs of health insurance and possibly the cost of health care as well. Increases in consumer cost sharing, especially deductibles, are part of this new strategy (Gabel et al., 2002). Despite the popular notion that encouraging the provision of CDHPs could improve the health care market, economic theory can also support the opposite conclusion. In a market where there is a tradeoff between making consumers financially responsible for their health care and providing

consumers with complete insurance, reducing insurance in order to increase financial responsibility can lead to a sub-optimal outcome (Zeckhauser, 1970). This possible consequence of CDHPs has received little attention in a policy debate that is focused primarily on the potential role of CDHPs in reducing overall medical expenditures.

High deductible health plans (HDHPs) are an important feature of CDHPs. Often, these HDHPs are combined with a personal health care spending account that provides individuals with favored tax treatment for money spent to pay for deductibles and co-payments. Federal legislation has facilitated the formation of Health Reimbursement Accounts (HRAs) and Health Savings Accounts (HSAs).

HRAs and HSAs potentially make high deductible health insurance plans more palatable to individuals by providing them with a means to avoid taxes on money used to pay health expenses not covered by high-deductible insurance. The accounts can compensate individuals somewhat for the risk associated with high-deductible plans. Money in these accounts can be used by the employee to pay for unreimbursed qualified medical expenditures. Unused funds in the account may be carried over from year to year.[6] This carryover provision of HRAs and HSAs is intended to benefit employees who use fewer and less costly services and so encourage them to do so.

HSAs were established in 2003 under the Medicare Prescription Drug, Improvement, and Modernization Act and are the newest form of personal savings accounts. HSAs are available to all individuals and employer groups. To operate an HSA, employers and/or enrollees make deposits into a specially designated account that is then used to purchase health services. If enrollees spend all of the funds allocated to their accounts in a given year and if this amount is less than the plan deductible, enrollees must then pay for additional health services out of pocket until their plan deductibles are met. (The expenditure amount between the annual account contribution and the deductible is often referred to as a “doughnut-hole). Above the deductible, enrollees’ health plans cover most costs. The earlier generation of personal health accounts, flexible spending accounts

[6] In the case of HRAs, the employer chooses whether the accounts have this carry-over provision.

(FSAs), did not permit enrollees to roll over funds from year to year.[7]

HSAs must be combined with an insurance plan with a deductible of at least $1,050 for an individual and $2,100 for a family.[8] The maximum account contribution is the lesser of 100 percent of the deductible, or $2,700 for an individual, and $5,450 for a family. While contributions can be made by the employee, the employer, or by both parties, the employee owns the account and thus the account is fully portable across jobs. Unused funds are rolled over from year to year. Moreover, accounts can earn investment income that is not taxed as earned. In addition, funds in HSAs can be withdrawn to pay for non-medical expenses, although they are then subject to taxes and to a penalty if the individual is under age 65.

Health Reimbursement Accounts, available since 2002, differ from HSAs in several important respects: they need not be paired with HDHPs with federally-mandated characteristics; only the employer contributions to the account receive favorable tax treatment; portability across employers and annual carry-over is permitted but not required; accounts are funded only employers only; and third-party administration of the accounts is required.

Some observers have argued that HSAs are particularly well situated to help small firms without medical plans to offer some form of health insurance to their employees (Laing, 2005). HDHPs typically have lower premiums and more accessible to small businesses. The Small Business and Entrepreneurship Council supported the implementation of HDHPs, and HSAs in particular, as a way to provide small business owners and their employees greater access to affordable choices in health insurance.

Early evidence suggests that consumer-directed plans are associated with both lower costs and lower cost increases (Buntin et al., 2006). However, CDHPs continue to be controversial as a mechanism for controlling costs and shifting responsibility to consumers (Ginsburg, 2006; Lee and Hoo, 2006). Among other things, there is some evidence that healthier individuals are more likely to

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[7] Medical Savings Accounts were a precursor of HSAs authorized as a demonstration project in 1996 and were not reauthorized when the demonstration period completed.

[8] The amounts reflect the requirements for 2006 and are indexed to inflation.

opt for these plans (Buntin et al., 2006). Early evidence also raises questions as to whether CDHP really are a panacea for small business.

SMALL FIRMS HAVEN'T BEEN ESPECIALLY QUICK TO ADOPT CDHPS

Insurers' interest in HRAs and HSAs is widespread and growing rapidly. According to a recent survey by AHIP, the number of individuals covered by a HDHP/HSA reached 3.2 million in January, 2006 – having tripled in less than one year. Approximately 30 percent of the HSA purchasers overall previously did not have insurance, according to the AHIP survey, with 16 percent of new small business purchasers previously not offering insurance (AHIP, 2006).

This growth in coverage was due to increases in both the group and the individual market. Today, at least 75 insurers offer account-compatible plans nationwide (Kaiser Daily, 2004; AHIP, 2005). Fifty-eight offer high-deductible account-compatible plans to large employers, 56 to small employers, and 47 to individuals. Most large insurers will also have full integration of HSAs and high-deductible plans by 2006, meaning that the carrier has a established a relationship with a bank and can provide information about the account along with information about total claims CDMR, 2005).

There is some evidence that while HSA products were more popular among small business and individuals than larger groups initially, their use is growing most rapidly among large employers. Large employers are generally introducing these products in a gradual way. Few large employers have chosen the "full replacement" route of abandoning traditional plans in favor of CDHPs (Schieber, 2004). Insurance industry officials report that employee take-up is low when CDHP plans are offered alongside traditional plans. Insurers and employers also report that employers' success in enrolling employees in these new plans to date depends on comprehensive education and communications efforts rather than waiting for employees to respond to premium differences.

A survey conducted by America's Health Insurance Plans (AHIP) of member companies found that only 3 percent of enrollees in HSAs in 2004 were in large group plans (AHIP, 2005). However, by January 2006, that figure had grown to 33 percent. Small group plans represented 18 percent of enrollees in 2004, and 25 percent in January 2006 (AHIP, 2006).

Some smaller businesses that might not otherwise offer health insurance see HSAs as a way to provide low-cost coverage. According to the 2006 survey of AHIP member companies, 33 percent of small group HSA policies were sold to businesses that previously did not offer insurance. This suggests that HSAs have the potential at least to serve as a meaningful tool for expanding health care coverage to small business employees, a finding that is supported by a simulation study conducted by Goldman et al. (2000) that found that similar plans could increase the proportion of small businesses offering health insurance.

The 2006 survey of insurance companies by AHIP provides information on the characteristics of the health HSA/HDHP insurance plans provided to individuals, small groups and large groups. This information suggests that small businesses are on a more level playing field with large businesses in this market. A comparison of the HSA/HDHP policies offered in the small vs. large group market[9] reveals that average annual deductibles are somewhat higher in the small group market, but that other characteristics are remarkably similar (AHIP, 2006). In the small group market, the average annual deductible is $2,143 for single coverage and $4,311 for family coverage, compared with $1,754 and $3,494 in the large group market. The average annual premium is $2,772 for single coverage and $6,955 for family coverage in the small group market, compared with $2,745 and $6,715 in the large group market.

A survey of employers by Kaiser/HRET (2006) provides information on the availability, enrollment and characteristics of HDHPs that are either offered with HRAs or are HSA-compatible (Claxton et al., 2006). These plans are referred to as high deductible health plans with a savings option (HDHPs/SO). The data reflect the situation as of 2006. The survey finds that 7 percent of employers offer one of these arrangements, with 1 percent offering HDHP/HRA and 6 percent offering HDHP/HSA. The fraction of employers offering an HSA was up significantly from the previous year.

Large firms are more likely than small firms to offer an HSA-qualified HDHP. Twelve percent of firms with over 1,000 offered it in 2006, up from 4 percent in 2005. Firms with 3-999 employees were half

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[9] The AHIP survey defines the small group market as one covering groups of 50 or fewer employees.

as likely to offer an HDHP/HSA - 6 percent of such employers offered an HSA-qualified HDHP.

Confirming the findings of other studies that suggest that individuals who have a choice among several plans are not likely to choose HDHP/SO, the KFF survey reveals that 40 percent of workers covered by a HDHP/SO are in firms where 100 percent of covered workers in the firm are enrolled in HDHP/SO. In firms that provide other options in addition to HDHP/SO, on average 19 percent of those employees enroll in the HDHP/SO.

Employer contributions to the savings accounts also vary tremendously. Thirty-seven percent of employers offering HSA-qualified HDHP/SO do not contribute to the HSA. Twenty-seven percent contribute $1,200 or more. This information is not broken down by firm size in the report.

ADDITIONAL EVIDENCE ON THE USE OF HRAS, HSAS AND HDHPS BY SMALL BUSINESSES

In this section of the chapter, we expand upon existing descriptive analyses of HSA and high deductible plan offering focusing in particular on small firms. We compare the profile of small firm offerings to those of larger firms. We also perform a multivariate analysis of HSA and high deductible plan offering. Our goal in this analysis is primarily to describe the consumer directed health plan offerings in small businesses and to assess if the popularity of these plans varies by firm size. Our analysis does not test whether the advent of consumer directed health plans has increased the propensity of small businesses to offer health insurance.[10] However, the descriptive profile in this paper provides a useful backdrop to understanding the role of consumer directed health products in small business health insurance.

Following most of the literature, we use the term consumer directed health plan to refer to any high deductible insurance plan; typically, "high-deductible" refers to a plan with a deductible of $1,000 or more. High deductible plans may be coupled with HSAs or HRAs (Buntin et al., 2006).

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[10] Identification of the effect of CDHP availability on health insurance offering would require exogenous cross-sectional and/or time-series variation in the availability of CDHPs. Given that our data has only a limited time-series variation, we do not undertake to test the effect of CDHP availability on health insurance offering.

Our work on HSAs, HRAs and CDHPs uses data from the 2003, 2004 and 2005 Kaiser Family Foundation/Health Research and Educational Trust (KFF-HRET) Annual Employer Health Benefits Survey. This is an annual national telephone survey of about 5,000 randomly selected public and private employers. Firms range in size from small enterprises with a minimum of three workers to corporations with more than 300,000 employees (see Claxton et al., 2006, for a detailed description of the survey).

The data contain detailed information about the health benefits offered by the firm and other firm characteristics. In particular, the survey asks about the types of health plans offered (PPO, HMO, fee-for-service), enrollment in each type of plan, whether the firm offers an HSA or a high-deductible plan, and whether the firm offers both in conjunction. Moreover, the survey asks about the likelihood of offering HSA plans combined with a high deductible plan among firms that do not offer these plans. The survey also asks additional details about the features of these plans such as the deductible, the premiums, and plan enrollment. Additional information on whether the firm is considering consumer directed health products in the future and whether the firm is aware of these products is also available. The survey does not ask this full set of questions every year – for instance, information on offering and characteristics of HRA plans was only asked in 2005.

Other firm data include the composition of the workforce (such as percent low wage), the unionization of workers, and the number of workers in the firm, industry, rural/urban, employee turnover, whether the firm laid off any workers in the previous year, and percent of the workforce that is part time. There are also measures of the cost and quality of health benefit offerings such as: whether the firm offers retiree benefits, wait periods, employer contribution to each plan offered etc. A sub-sample of firms is interviewed for two consecutive years allowing us to construct a two-year longitudinal sample as well as a cross-sectional sample. Our analyses using these data are weighted using firm level weights.

CDHP UTILIZATION AND GROWTH DOES NOT VARY BY FIRM SIZE

As is well known, the smallest firms (3-49 employees) are less likely to offer health insurance compared to larger firms, as shown in Table 3. About 58 percent of small firms offer HI relative to 60

percent of firms with 50-199 firms, and 61 percent of all firms regardless of size.[11] Despite the notion that CDHPs may be especially attractive to small firms, there is no evidence that offering HD plans, conditional on offering health insurance, or offering HSA plans conditional on offering HD plans is higher in small firms. Twelve percent of firms that offer health insurance also offer HD plans in small and large firms. Conditional on offering HD plans, 8 percent of small firms and 9 percent of all firms offer HSAs; however, this difference is not statistically significant.

CDHPs have grown in popularity between 2003 and 2005. In 2003, only 5 percent of firms that offered health insurance also offered HD plans, and 13 percent of firms that offered HD plans also offered HSAs. By 2005, these percentages had grown to 20 percent offering HD plans, and 20 percent offering HRAs or HSAs conditional on offering HD plans. However, there was no difference in the growth rate between small and large firms.

Even though we observe little difference between small and large firms in HRA and HSA offerings, simply examining the propensity to offer these plans provides a partial picture. Firms may differ in the generosity of their HSA/HRA plans – some may provide generous contributions and use these plans as a mechanism for subsidizing health care expenditures, and others may have very high deductibles and large doughnut holes in order to shift costs on to employees. In a later section, we examine benefit generosity variations in plans to develop a full picture of the differences in CDHP offerings between small and large businesses.

Table 3.
Descriptive Profile of Health Insurance by Firm Size and Year

	All firms	Firms with 3-49 employees	Firms with 3-199 employees
Years: 2003-2005			
Percent offer	61%	58%	60%
Sample size	5794	1611	2415
Percent offer HD conditional on offering	12%	12%	12%

[11] While these differences may not seem large, health insurance offer rates do drop precipitously as firm size falls – only 48 percent of the smallest firms (3-9 employees) offer health insurance, compared to 98 percent of the largest firms (200 or more employees) (KFF-HRET, 2005).

Sample size	5288	1157	1925
Percent offer HSA conditional on offering HD	9%	8%	9%
Sample size	719	137	235
Year: 2003			
Percent offer HI in 2003	62%	59%	61%
Percent offer HD in 2003 conditional on offering HI in 2003	5%	5%	5%
Percent offer HSA in 2003 conditional on offering HD in 2003	13%	11%	13%
Year: 2004			
Percent offer HI in 2004	62%	60%	61%
Percent offer HD in 2004 conditional on offering HI in 2004	10%	10%	10%
Percent offer HSA in 2004 conditional on offering HD in 2004	4%	3%	3%
Year: 2005			
Percent offer HI in 2005	60%	57%	59%
Percent offer HD in 2005 conditional on offering HI in 2005	20%	20%	20%
Percent offer HSA in 2005 conditional on offering HD in 2005	12%	11%	11%
Percent offer HRA or HSA in 2005 conditional on offering HD in 2005*	20%	18%	19%

* Information on HRAs is only available in the 2005 data.

PERSISTENCE IN CDHP OFFERINGS

Given that CDHPs are new products, we may expect a moderate degree of churning in the offering of these plans. Firms may choose to offer CDHPs in one year and drop them the following year if take-up was poor or if they proved to be onerous to administer. To examine this issue, we analyze firms that are surveyed both in 2004 and 2005 in order to develop a longitudinal descriptive profile of CDHP offering. We find that 75 percent of firms that offered HD plans in 2004 continued to offer them in 2005. Small firms (3-49 employees) appear to be slightly less likely to offer HD plans in 2005, conditional on having offered them in 2004. Sixty-six percent of firms with 3-49 employees offer HD plans in 2005 conditional on having offered them in 2004; however, this statistic is based on a very small sample. In addition, 99 percent of firms that offered HSAs in 2004 offered either HRA or HSA plans in 2005; however, again, this

statistic is based on a very small sample (N=21). Conversely, 25 percent of firms offering HD in 2005 also offered HD in 2004. Twenty-six percent of firms offering HRA/HSA in 2005 also offered HD in 2004. Among firms that offer HRAs or HSAs in 2005, 16 percent offered HSAs in 2004; however, this number is based on a very small sample size. Smaller firms appear to be slightly more likely to be new adopters of CDHPs compared to larger firms – 22 percent of small firms offered HD plan in 2004 conditional on offering HD plans in 2005 compared to 25 percent for firms of all sizes. In summary, it appears that there is some evidence of higher churning in the CDHP offerings of small firms – small firms are more likely to be new adopters and less likely to retain their CDHP offerings from year to year.

WHICH FIRMS ARE MORE LIKELY TO OFFER CDHPS?

We estimate logit models of CDHP offering behavior in order to parse out the firm and worker characteristics that are associated with a firm's propensity to offer CDHPs. We estimate a three-equation model to develop a complete picture of the CDHP offering decision. First, we estimate a model of the propensity to offer health insurance. Second, we estimate a model of the propensity to offer HD plans conditional on offering health insurance. Lastly, we estimate a model of HSA plan offering conditional on offering HD plans.

The explanatory variables used in the models are firm composition variables, industry indicators, the location of the firm, and the year of the survey. Firm composition variables include the size of the firm (3-49 workers, 50-199 workers, 200+ workers), and variables to capture workforce composition and worker demand for health insurance such as the percent of the workforce earning $20,000 or less, percent of the workforce working part time, percent of covered employees, and union coverage. We also include a full set of industry indicator variables to measure variations in insurance practices, insurance availability and worker demand at the industry level. The firm's geographical location is measured by indicators for region and an indicator for location in an urban area. Health insurance premiums and safety net availability varies by region and population density; therefore, location variables are useful proxies to capture this variation. Year indicators are included in the model to capture annual trends in CDHP availability and demand as well as

annual variations in survey administration. We use firm level data from 2003-2005 and apply firm-level sample weights to the models.

The estimates from the three logit models are reported in Table 4. The first and second columns show that small firms are no different from larger firms in their propensity to offer HSAs and HD plans. This result is in keeping with the descriptive data reported earlier. The third column shows that small firms are substantially less likely to offer health insurance, consistent with the rest of the literature on small firms and health insurance.

The results also show that firms with a higher proportion of low income workers are both less likely to offer HSA plans and less likely to offer health insurance. The model predicts that the percent of firms offering HSA plans increases from 0.3 percent to 9 percent as the fraction of the workforce that is low income falls from 1 to 0.2 (75^{th}-25^{th} percentile of the income distribution). This result is consistent with media reports that HSA plans may have relatively more appeal for educated, higher income workers. Firms that have union workers are significantly more likely to offer HD plans as well (20 percent for union firms compared to 11 percent for non-union firms), suggesting that unions have been lobbying for the introduction of more choice in health insurance offerings.

Table 4.
Determinants of CDHP Offering: Estimates from Logit Model (2003-2005)

	Offer HSA conditional on offering HD	Offer HD conditional on offering HI	Offer HI
Firm Composition			
Size: 3-49 workers	-0.43 (0.52)	0.09 (0.23)	-2.14*** (0.52)
Size: 50-199 workers	-0.25 (0.55)	0.21 (0.20)	-1.95*** (0.62)
Percent of workforce earning $20,000 or less	-4.73*** (1.44)	0.60 (0.59)	-1.89** (0.88)
Percent of workforce working part time	-1.12 (1.50)	-1.03 (0.81)	-3.67*** (1.03)
Percent of covered employees	0.13 (1.15)	-0.58 (0.69)	
Union	-0.41 (0.74)	0.77** (0.37)	1.84** (0.85)
Industry			
Mining	-1.17 (1.31)	0.30 (0.78)	0.60 (0.78)
Construction	1.75* (0.98)	-0.33 (0.48)	-0.48 (0.73)

Transportation/ utilities/ communications	1.65 (1.09)	-0.45 (0.48)	-0.55 (0.85)
Wholesale	1.68 (1.06)	0.48 (0.56)	0.63 (0.70)
Retail	0.76 (0.93)	1.16** (0.51)	-1.05 (0.73)
Financial	-0.98 (0.98)	0.25 (0.47)	0.38 (0.74)
Service	-0.48 (0.82)	1.16*** (0.40)	0.07 (0.62)
Government	0.56 (0.91)	-0.69 (0.44)	2.51*** (0.69)
Healthcare	1.65** (0.80)	0.18 (0.47)	-0.27 (0.78)
Location			
Midwest	2.22** (0.93)	0.96** (0.44)	-0.10 (0.50)
South	1.99** (0.97)	0.61 (0.47)	0.21 (0.45)
West	0.94 (1.02)	0.23 (0.56)	0.01 (0.62)
Urban	-1.18* (0.64)	0.13 (0.31)	0.20 (0.42)
Year			
2003	0.19 (0.73)	-1.64*** (0.39)	0.26 (0.40
2004	-1.46* (0.82)	-0.76** (0.36)	0.55 (0.40)
Observations	719	5288	5794

Note: Standard errors in parentheses.
* Significant at 10%.
** Significant at 5%.
** Significant at 1%.

CDHP offering also varies by industry and location. Construction and health care industries are more likely to offer HSAs than manufacturing (the omitted category), and retail and service industries are more likely to offer HD plans than manufacturing. Furthermore, CDHPs (particularly HSAs) appear to be most popular in the Midwest followed by the South, and less relatively less popular in urban areas compared to rural areas. There also appears to be an increase in CDHP offerings in 2005 relative to earlier years, suggesting that these plans are growing in popularity.

The models presented in the tables focus on HD and HSA offering. Recently, HRAs have become an important part of the CDHP landscape. Given that HRAs are a recent development; our data set contains information on these plans only for 2005. We have re-estimated the logit models on 2005 data including a separate logit model which includes firms that offer either an HSA or HRA, conditional on offering HD plans. Consistent with the results reported for HSA plans, we found no differences in offering by firm size. We have not reported these results in the tables; however, they are available on request.

LONGITUDINAL ANALYSIS OF CDHP OFFERINGS

Our data allows us to follow firms for a two-year period. We use our two-year analytic database for 2004-2005 to analyze the effect of health insurance status in 2004 on CDHP offering in 2005. This analysis provides us with a picture of the dynamics of plan determination and the importance of persistence in health plan offerings.

We estimate two logit models for 2005. First, we model a firm's propensity to offer HD plans conditional on offering health insurance. Next, we model a firm's propensity to offer an HRA or an HSA conditional on offering an HD plan. The explanatory variables in these models are, for the most part, the same as those in the logit models presented earlier. We include a set a firm composition variables (firm size and workforce characteristics), industry indicators, and location indicators. We also include a set of current health insurance offering variables – these are whether the firm offers only one plan, two to four plans, or five or more plans. We expect that firms that offer many plans may be more likely to choose a CDHP as one of the options. We also include a set of lagged (2004) health insurance variables. These are whether the firm offered an HD in 2004, whether the firm offers only one plan, two to four plans, or five or more plans in 2004.

Our results in Table 5 show that while there continues to be no difference among small and large firms in HD plan offering, we do find that HRA/HSA plan offering is 26 percent lower in the smallest firms (3-49 employees) than in firms that employ 200 or more workers, and this result is statistically significant. This result controls for all other variables that may be associated with HRA/HSA offering including lagged and current health insurance offerings. We also find that firms that offered only one plan or two to four plans were significantly less likely to offer HRAs or HSAs than firms that offered five or more plans. In addition, firms that offered two to four plans in 2004 were significantly less likely to offer HD plans in 2005 than firms that offered five or more plans. These results are consistent with the notion that firms that offer more choice are likely to also offer CDHP options.

Table 5.
Determinants of CDHP Offer in 2005: Estimates from a Logit Model

Sample: All firms surveyed both in 2004 and 2005	Offer HD in 2005 conditional on offering HI in 2005	Offer HRA or HSA in 2005 conditional on offering HD in 2005
Firm Composition		
Size: 3-49 workers	0.12 (0.41)	-2.12*** (0.78)
Size: 50-199 workers	0.54 (0.36)	-0.89 (0.76)
Percent of workforce earning $20,000 or less	-0.43 (0.71)	-7.53*** (1.72)
Union	0.33 (0.52)	0.50 (0.96)
Health Insurance		
Offer only one plan	0.10 (0.85)	-1.98* (1.05)
Offer 2-4 plans	0.38 (0.86)	-4.90*** (1.18)
Lagged Health Insurance (2004)		
Offered HD	3.20*** (0.54)	0.46 (0.82)
Offered only one plan	-0.93 (0.93)	-1.42 (1.14)
Offered 2-4 plans	-1.70* (0.92)	-1.09 (1.13)
Industry		
Mining	0.41 (1.24)	1.42 (1.38)
Construction	-0.1 (0.84)	
Transportation/utilities/ communications	-0.96 (0.72)	
Wholesale	2.28*** (0.87)	
Retail	0.84 (0.78)	1.34 (1.08)
Financial	0.71 (0.77)	-1.29 (1.74)
Service	0.07 (0.67)	2.52** (1.00)
Government	-0.49 (0.74)	2.93 (1.83)
Healthcare	1.69* (0.87)	4.38*** (1.29)
Location		
Midwest	1.80*** (0.51)	1.22 (1.00)
South	0.94* (0.51)	1.95** (0.94)
West	1.32** (0.58)	-1.27 (1.05)
Observations	1169	268

Note: Standard errors in parentheses.
* Significant at 10%.
** Significant at 5%.
*** Significant at 1%.

BENEFIT DESIGN OF HRA AND HSA PLANS

The 2005 survey data provide detailed information on the benefit design of HRA and HSA plans. We analyze the existence and magnitude of differences in the benefit design of HRA and HSA plans by firm size. In general, small firms are thought to provide health insurance policies that are less generous than larger firms, although recent evidence suggests that small firm and larger firm policies are

similar along many dimensions (KFF-HRET, 2005).[12] We revisit this issue focusing on benefit generosity in HRA and HSA plans.

We estimate Ordinary Least Squares (OLS) models for the monthly premium for a single individual, monthly worker contribution to the single premium, annual deductible for a single worker, annual firm contribution to a single worker, and the maximum out-of-pocket liability for a single worker. We estimate one set of models for HRA plans and another set of models for HSA plans. An important caveat with these models is that they have a relatively small number of observations – 50-60 depending on the model. However, the key findings from the models remain the same after re-estimating a parsimonious specification that excludes detailed firm and industry characteristics.

Table 6 reports the OLS regression estimates for HRA plans in 2005. We find that small firms with 3-49 employees have significantly lower premiums ($86.46) and significantly higher deductibles ($912.35) than large firms suggesting that they have somewhat lower quality policies. However, firms with 50-199 workers have significantly lower worker contributions ($52.15) and higher firm contributions ($730.94) and lower maximum out-of-pocket liabilities ($1490) than large firms suggesting that these firms are more generous than large firms.

Table 6.
Benefit Design of HRA Plans, 2005

	OLS Regressions for HRA Plans, 2005				
	Monthly total premium (single)	**Monthly worker contri-bution to premium (single)**	**Annual deductible (single)**	**Annual firm contri-bution (single)**	**Maximum out-of-pocket liability (single)**
Firm Composition					
Size: 3-49 workers	-86.46*	-4.51	912.35**	209.48	738.26

[12] The Kaiser-HRET employer surveys on health insurance benefits have showed that there are no statistically significant differences among small firm plans and large firm plans in their offerings of prescription drugs, adult physicals, outpatient mental, inpatient mental, annual OB/GYN visit, oral contraceptives, and well-baby care. Only the propensity to offer prenatal care and chiropractic care differed significantly. Small firm policies were more likely to have no policy limit (60 percent in small firms and 45 percent in large firms) and more likely to have a limit on out-of-pocket spending than large firm policies (87 percent in small firms and 77 percent in large firms), and more likely to have higher deductibles ($559 in large firms and $280 in small firms for single coverage) (Kaiser-HRET, 2004).

	(47.93)	(22.22)	(391.74)	(209.01)	(719.72)
Size: 50-199 workers	44.54 (41.74)	-52.15** (19.35)	181.36 (323.58)	730.94*** (172.64)	-1,490.23** (626.85)
Percent of workforce earning $20,000 or less	-24.83 (67.96)	20.02 (31.51)	1,171.64** (481.99)	-362.04 (257.16)	161.47 (1,020.61)
Percent of workforce working part time	-9.94 (85.08)	-52.37 (39.44)	-501.39 (734.24)	-783.82* (391.74)	523.07 (1,277.63)
Percent of covered employees	137.12* (74.97)	-11.18 (34.76)	-255.82 (673.78)	-686.43* (359.48)	1,241.56 (1,125.88)
Union	37.49 (32.14)	-5.68 (14.90)	-274.56 (271.12)	-48.14 (144.65)	-605.66 (482.61)
Industry					
Mining	46.52 (64.27)	20.1 (29.80)	572.46 (578.38)	-83.24 (308.58)	-150.35 (865.10)
Construction	32.65 (53.64)	37.99 (24.87)	722.41 (480.98)	-58.88 (256.62)	670.87 (805.46)
Transportation/utilities/ communications	-17.64 (84.55)	-7.01 (39.20)	241.47 (765.44)	50.4 (408.39)	-1,523.54 (1,269.77)
Wholesale	12.99 (94.36)	10.17 (43.75)	-315.18 (454.19)	-647.98** (242.33)	-93.25 (1,417.04)
Retail	129.09** (54.91)	31.14 (25.46)	668.17 (475.13)	4.92 (253.50)	-102.84 (824.56)
Financial	89.93** (42.29)	17.71 (19.61)	85.4 (357.83)	-389.10** (190.91)	76.7 (635.04)
Service	51.33 (40.10)	-3.78 (18.59)	123 (328.67)	-131.39 (175.35)	-490.03 (602.16)
Government	79.9 (70.17)	-32.95 (32.53)	-431.77 (614.93)	-226.92 (328.08)	-2,120.78* (1,053.81)
Healthcare	52.05 (48.33)	-7.24 (22.41)	-321.71 (388.04)	-412.73* (207.03)	-399.78 (725.85)
Location					
Midwest	-1.92 (36.03)	-5.49 (16.70)	226.91 (313.47)	84.19 (167.25)	149.1 (541.04)
South	10.43 (33.46)	9.83 (15.51)	141.4 (288.86)	10.55 (154.12)	1,124.76** (502.54)
West	51.01 (49.13)	15.38 (22.78)	273.21 (398.62)	245.36 (212.68)	1,660.42** (737.77)
Urban	25.39 (42.16)	-30.09 (19.55)	-355.69 (325.46)	97.66 (173.64)	-130.11 (633.14)
Observations	54	54	66	66	54
R-squared	0.41	0.38	0.45	0.53	0.41

Note: Standard errors in parentheses.

* Significant at 10%.

** Significant at 5%.

*** Significant at 1%.

Firms with a higher proportion of low-income employees appear to offer HRAs that have higher deductibles, however, we do not observe that these firms have significantly lower premiums to account for the higher deductibles. Firms with a high proportion of part time workers also have a lower firm contribution to HRAs suggesting that worker demand for health insurance influences the firm's contribution decision. We also observe differences in plan benefits by industry and region.

Table 7 reports OLS regression estimates for HSA plans. Unlike the models for HRA plans, we observe almost no difference in benefit

design by firm size. The only exception is that it does appear that firms with 3-49 workers have significantly higher single premiums ($128.49 per month); however, we do not observe a statistically difference in any other feature of the plan benefit. Firms with a higher proportion of low income workers have plans with a higher worker contribution to the premium, but we do not observe a statistically difference on any other measure of plan benefit. In summary, it appears that the evidence on plan generosity for small firms is mixed – HSA plans in small firms appear to have lower premiums and lower quality, but HRA plans appear to have somewhat higher premiums, but do not appear to differ in other dimensions. In general, it does not appear that small businesses are offering plans that are systematically different in generosity, along the full spectrum of benefit features, compared to larger businesses.

Table 7.
Benefit Design of HSA Plans, 2005

	OLS Regressiions for HSA Plans, 2005				
	Monthly total premium (single)	**Monthly worker contri-bution to premium (single)**	**Annual deductible (single)**	**Annual firm contri-bution (single)**	**Maximum out-of-pocket liability (single)**
Firm Composition					
Size: 3-49 workers	128.49** (62.44)	26.57 (33.90)	-311.52 (442.60)	-16.29 (278.44)	-418.41 (752.52)
Size: 50-199 workers	12.59 (65.23)	30.2 (35.42)	-219.53 (429.96)	9.24 (270.49)	-367.71 (786.20)
Percent of workforce earning $20,000 or less	107.53 (105.74)	117.19* (57.42)	-865.69 (706.08)	-332.01 (444.19)	805.45 (1,274.43)
Percent of workforce working part time	237.63* (137.28)	57.89 (74.54)	-1,581.18 (999.19)	133.51 (628.59)	-2,789.86 (1,654.56)
Percent of covered employees	256.44* (126.18)	121.49* (68.52)	-1,355.90 (869.10)	432.36 (546.75)	-989.43 (1,520.78)
Union	85.30* (44.06)	66.14*** (23.92)	81.83 (324.33)	121.05 (204.03)	-86.37 (530.96)
Industry					
Mining	-357.72** (160.16)	-36.18 (86.97)	817.11 (1,165.77)	339.5 (733.39)	987.01 (1,930.29)
Construction	-176.81* (102.23)	37.44 (55.51)	596.17 (738.76)	257.73 (464.75)	-1,265.21 (1,232.10)
Transportation/utilities/ communications	-4.83 (86.17)	-9.2 (46.79)	-125.43 (530.33)	119.64 (333.63)	-1,010.49 (1,038.50)
Wholesale	-230.27* (134.86)	-26.73 (73.23)	1,311.86 (929.79)	655.8 (584.93)	-199.55 (1,625.31)
Retail	62.19 (101.48)	94.49* (55.10)	-17.28 (624.60)	880.02** (392.93)	1,161.10 (1,223.08)
Financial	50.14 (86.80)	7.04 (47.13)	4.69 (567.55)	64.24 (357.05)	-899.46 (1,046.14)
Service	-27.32 (64.77)	21.29 (35.17)	797.04* (441.05)	264.97 (277.46)	-128.06 (780.61)
Government	37.33 (89.10)	3.47 (48.38)	868.98 (611.92)	-53.69 (384.96)	-638.74 (1,073.85)

Healthcare	16.69 (74.30)	57.54 (40.34)	330.16 (517.07)	190.13 (325.29)	33.26 (895.46)
Location					
Midwest	-61.13 (61.34)	5.17 (33.31)	146.94 (434.17)	-92.04 (273.13)	-188.73 (739.33)
South	-38.12 (58.13)	-10.45 (31.56)	419.86 (432.06)	-49.34 (271.81)	-545.28 (700.59)
West	137.29* (78.32)	25.09 (42.53)	289.32 (543.06)	-240.93 (341.64)	311.87 (943.91)
Urban	-70.23 (51.46)	-6.35 (27.94)	-482.92 (352.28)	-170.48 (221.62)	-373.93 (620.24)
Observations	50	50	59	59	50
R-squared	0.52	0.42	0.3	0.23	0.31

Note: Standard errors in parentheses.

* Significant at 10%.

** Significant at 5%.

*** Significant at 1%.

CDHPS ARE GROWING IN POPULARITY BUT DO NOT APPEAR TO BE A PANACEA FOR SMALL BUSINESS

Our analysis of the Kaiser-HRET survey shows that, in general, small firms are no more likely to offer CDHPs, and their uptake of CDHPs has not grown any more rapidly than larger firms. Small firms appear to have slightly higher rates of churning in their CDHP offerings, and seem to be somewhat more likely to adopt and drop CDHP policies. However, we find no consistent evidence that CDHP offerings vary systematically in premiums or generosity between small and large firms.

CONCLUSIONS

Small business health insurance reform is a policy issue that is continually in the limelight. Since the majority of uninsured working Americans are employed in small businesses, extending health insurance coverage to small businesses is an important mechanism for reducing the number of uninsured. States have continued to adjust their small group health insurance reform packages to make them more effective. However, these incremental pricing and access reforms cannot be expected to solve the fundamental problems of high administrative costs, adverse selection and a shallow risk pool that afflict the small group health insurance market. Regulations that restrict premium variation may lower prices for some, but increase prices for others, and may drive some insurers out of the market. Evidence reveals that policy approaches focused on regulating the insurance market have not improved access to or affordability of health insurance to small businesses across the board, and have lead to distortions in the size of businesses right around the regulatory

threshold. In other words, the regulations have not only failed to achieve their core aims, but they have had unintended consequences related to business operations. Research suggests that policy makers need to be aware that legislative size thresholds may have unintended consequences on business size. Furthermore, incremental legislation that makes only small changes in the small group health insurance market is unlikely to have large-scale effects on health insurance offering among small firms.

Solutions to the problem of health insurance access and affordability will likely need to address fundamental issues driving the escalation in health insurance costs. Indeed, the policy debate has shifted in this direction. One approach is that advocated by the Small Business Health Plan legislation in the House and Senate proposes to improve access and availability to health insurance by allowing small businesses to band together to purchase health insurance, for example through their industry associations.[13] Another solution that has been advocated by the Bush administration and by policy analysts is the development of consumer directed health plans (CDHPs). These plans aim to control costs by increasing consumers' financial responsibility and involvement in their health care choices. Since CDHPs are potentially less costly than traditional health plans and may appeal to younger workers with low health care demand, these plans may be well suited to workers in small businesses (Laing, 2005). However, despite the enthusiasm for such plans among small business advocates, evidence to date suggests that small businesses have been no more likely than larger businesses to offer such plans. We examine evidence from the Kaiser-HRET survey and show that, in general, small firms are no more likely to offer CDHPs, and their uptake of CDHPs has not grown any more rapidly than larger firms. We do find some evidence that small firms are more likely to add and drop CDHP plans. More information on the implementation of CHDPs, particularly within smaller firms, would be valuable in assessing the causes of such churning and ultimately, whether CDHPs are indeed a panacea for small business. Because the marketplace for such options is changing rapidly, it will be important to monitor changes over the next few years. For example, as more firms enter

[13] http://www.uschamber.com/issues/index/health/0306_ahps_facts.htm.

the marketplace offering services to manage HSAs, small businesses with a small benefits office might find it plausible to offer HSAs by contracting with such a firm. It may simply take time for these providers to emerge and for small businesses to learn about them.

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