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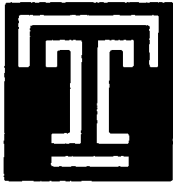
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The Increasing Number of Working Uninsured in the City of Philadelphia: An Analysis of Small Business and Employee Choices

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**THE INCREASING NUMBER OF WORKING UNINSURED IN THE CITY OF
PHILADELPHIA:**

AN ANALYSIS OF SMALL BUSINESS AND EMPLOYEE CHOICES

**A Dissertation
Submitted to
the Temple University Graduate Board**

**in Partial Fulfillment
of the Requirements for the Degree
DOCTOR OF PHILOSOPHY**

**by
Susan M. Hansen
January, 2002**

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ABSTRACT

The Increasing Number of Working Uninsured in the City of Philadelphia: An Analysis of Small Business and Employee Choices

Susan M. Hansen

Doctor of Philosophy

Temple University, 2002

Charles Hall, Jr., Ph.D., Chair, Doctoral Advisory Committee

Employment is the primary source of health care coverage in the United States. However, despite record employment levels, the proportion of working age Americans in employment-based health insurance (EBI) plans is less today than it was ten years ago (data collected Spring, 2001) and those that are in plans are more likely to be contributing to the cost of their premiums. It is estimated that of the more than 40 million Americans who have no health insurance, more than two-thirds are employed, and more than half of those are employed by small businesses with 50 or fewer employees.

Philadelphia small businesses were surveyed to determine factors which influenced their decision to offer health insurance to employees. The decision of a small business employer to offer health insurance coverage, and the decision of the employee to accept that coverage are dependent on a complex set of factors. Employers are more likely to offer coverage to attract more highly skilled employees. They are less likely to offer coverage when the costs of providing that benefit are high.

Competition for employees is the driving reason for Philadelphia's small businesses to offer health insurance to employees. Barriers to offering health insurance include cost and lack of knowledge concerning health insurance. However, avoidance of offering health insurance, through alternative (spousal) coverage and the deliberate hiring of part-time workers appears to be an operative strategy. The larger the firm, the more likely the firm is to offer health insurance. However, divisions of larger organizations, regardless of their own size, are far more likely to offer health insurance than freestanding businesses.

Woman-owned or directed businesses have a tendency to be more likely to offer health insurance than non-female owned or directed. Industry sector, along with size, also influences the decision. In short, there exists a tension between the desire of businesses to offer health insurance and the cost of that insurance. Many businesses desire to offer health insurance in an effort to develop and or maintain an affiliate relationship with their employees. Cost compromises that desire.

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CHAPTER 1

INTRODUCTION

Employment-based health insurance (EBI) is the most common form of health insurance coverage in the United States, and represents coverage for more than 152 million American workers and their dependents, in addition to an estimated 17 million retirees and family members. This system of voluntary, employer-provided coverage through private plans evolved during World War II, when wage controls prevented unions from negotiating higher pay. Growth in EBI activity was promoted by the Federal tax treatment of health benefits. However, between 1974 and 1984, the cost of providing private insurance quadrupled for most employers, causing major reaction among employers and insurers.

This major reaction resulted in a change in the nature of job-based coverage. Managed care, offered by Health Maintenance Organizations (HMOs) began replacing conventional, or indemnity or fee for service insurance plans. By helping hold down cost increases, HMOs helped employers control premium costs, with increases of less than one percent common in the early 1990s. However, as expectations for more covered services grew, and as technology became more available, premium costs began rising again. On average, employers' premiums rose about four percent in 1998, nine percent in 1999, 12 percent in 2000, and to date, 14 percent in 2001. At the same time, employees enrolled in

indemnity plans declined dramatically from 73 percent in 1998 to less than two percent in 2001.¹

The increased cost of health insurance premiums has forced some companies to drop coverage, other companies to impose a contribution to premium on its employees. The Congressional Budget Office (CBO), in 1996,² estimated that a one percent increase in premiums would increase the number of uninsured workers by 200,000. Since then a number of private economists have estimated that up to 400,000 workers lose their coverage each time the premium increases by one percent.³

In addition to medical-based inflationary premium increases, certain proposed mandates are also anticipated to have an effect on premiums. For example, pending legislation on antitrust exemptions for health care professionals is estimated to increase the premium by 8.6 percent, therefore, having the potential impact of increasing the number of uninsured workers by more than 3 million. In addition, some states have mandated certain required coverages, such as infertility, which will increase premiums.⁴

Despite record employment levels, the proportion of working age Americans in EBI plans is less today than it was ten years ago, and those that are in plans are more likely to be contributing to the cost of their premiums. The Kaiser Foundation estimates

¹ The Kaiser Foundation Commission on Medicaid and the Uninsured.

² This issue is discussed in a number of articles, but referenced most by Marsha Gold, "U.S. Health Care System, The Millbank Quarterly, Volume 77, pages 1-22.

³ See S. Jacoby, "Risk and the Labor Market," Working Paper Series, UCLA, 2000.

that of the more than 40 million Americans who have no health insurance, more than two-thirds are employed, and more than half of those are employed by small businesses with 50 or fewer employees. Table 1 shows the distribution among the insured in 1999.

Table 1. Health Insurance Coverage in the United States, 1999 (in 000s)

	Total Individuals	Percent	Nonelderly Individuals	Percent	Elderly Individuals	Percent
Total	274,087	100	241,466	100	32,621	100
Total covered	213,533	84.5	199,334	82.6	14,199	98.7
Private	194,599	71	174,555	72.3	20,054	61.5
EHI	172,023	62.8	160,854	66.6	11,169	34.2
Medicare	36,066	13.2	4,835	2.0	31,231	95.7
Medicaid	27,890	10.2	24,973	10.3	2,917	8.9
Uninsured	42,554	15.5	42,131	17.4	423	1.3

Note: The total for insurance categories may exceed 100 percent because individuals may have multiple sources of coverage.

Source: Tabulations of the March 2000 supplement to the Census Bureau's Current Population Survey (CPS)

Statement of the Problem

Many Americans, although fully employed, are not fully insured. Most of them work for small businesses. In spite of robust employment rates and a variety of initiatives which have taken place both on the private and public side, the number of uninsured Americans continues to grow. Trends indicate that individuals without health insurance have less access to preventative care and have more instances of chronic health

⁴ Ibid.

problems. Since most of the nation's economic growth is occurring among small businesses, does this imply that the number of uninsured Americans will continue to grow?

Employment-based health plans are the most common source of health insurance among nonelderly individuals in the U.S., providing coverage to nearly two-thirds of the population. However, despite recent years of very low growth in health care costs, and despite a robust economy with a very low percentage of unemployed, the number of individuals who are working and who have no health insurance is increasing. The majority of this increase is coming from small business, defined for purposes of this study as firms with between 1 and 50 employees. Recent studies indicate that employers with more than 200 employees are 99 percent likely to provide health insurance for their employees; employers with between 56 and 199 employees are 97 percent likely to provide health insurance for their employees; but employers of 50 employees and fewer are less than 50 percent likely to provide health insurance for their employees.⁵

Recent studies have also demonstrated that individuals without health insurance tend to have a poorer health status than individuals with health insurance, with indicators of higher presence of chronic disease, greater percentage of nonhealthy lifestyles (smoking, lack of exercise, abuse of alcohol, and or narcotics), less access to diagnostic

⁵ Kaiser Commission on Medicaid and the Uninsured.

screening, and higher utilization of emergency rooms.⁶ As the number of working uninsured increases, concerns mount over public health issues as well as over the high cost of these individuals to the provider side of the industry. A number of demonstration projects are underway throughout the U.S. in which some sort of public/private initiative is attempting to tackle the problem through a combination of tax credits, legislation requiring small businesses to offer insurance, and tax increase to fund risk pools.

Philadelphia has an increasing number of small businesses and an increasing number of working uninsured. More than 88 percent of all businesses in the city of Philadelphia are small, as defined by fewer than 50 employees. The Greater Philadelphia Chamber of Commerce estimates that more than 60 percent of workers in the city are employed by small businesses. The number of uninsured nonelderly adults in Philadelphia has increased by 34 percent over the last ten years, with more than half of the uninsured working full time. Some of these uninsured are working for companies which do not offer health insurance. Others work for companies which offer health insurance, but with an employee copay.

⁶ Leiyu Shi, "Vulnerable Populations and Health Insurance," *Medical Care Research and Review*, Vol. 57, Number 1, 2000, pages 112-116.

Purpose of the Study

As of May, 2001, the Philadelphia Metropolitan Statistical Area (MSA) ranked fifth in the U.S., in terms of labor force and percentage of adult civilians employed ⁷ ranking behind, in order, Los Angeles, Chicago, New York City, and Washington D.C.

For the period April 1998 through April 2001, there was a 1.4 percent increase in the number of employed residents in the city of Philadelphia, from 585,630 to 593,832, and for the MSA, an increase of 2.3 percent, from 2,358,286 to 2,413,175. The unemployment rate in the Philadelphia MSA was 4.3 percent as of May, 2001, ranking it 122 among the 125 major MSAs.⁸

Philadelphia is not unique in having an increasing number of its workers uninsured. As pointed out above, the number of working uninsured is an issue of national concern. The purpose of this study is to examine the specifics of the Philadelphia market and to compare those findings with other findings in other parts of the country. Results of this study may influence Pennsylvania policy-making initiatives.

Significance of the Research and Contribution to the Literature

The growing number of uninsured, the cost of caring for the uninsured, and the concept of EBI vs. socialized medicine are currently debated topics in public policy. Many efforts to reform the health insurance market have included specific reforms to the small

⁷ www.data@economy.com

employer market. This research builds on existing literature and provides additional information specific to the city of Philadelphia. This research contributes to the data base available for public policy initiatives. In addition, this research adds to the literature on economic decision making regarding health insurance choices, testing the relationship between the desire of employers to develop and maintain and affiliative relationship with their employer and the cost of doing so. This research adds a new dimension to the literature, as there have been no studies on EBI which have assumed the gender of the business owner as a variable in the economic decision.

⁸ Department of Labor and Statistics, Philadelphia Office.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND RELATED LITERATURE

Conceptual Framework

The practice framework for this study is derived from the literature on policy implications for uninsured adults as well as the economic literature on price as a determinant. The study design involved a review of existing information, a survey of small businesses in the city of Philadelphia, and a random follow up of non-responders. The statistical validation is based on the test for equality between two proportions and is adapted to the stratified sampling context from the likelihood ratio test for the p sample, using the normal approximation to the binomial distribution.

Review of the Literature

The Implicit Social Contract

Beginning with the end of World War II, an implicit social contract has existed between U.S. corporations and their employees (Jacoby; Kochan; Acs and Steuerle). This implicit contract with workers was characterized by job security, a chance for promotion, a pension, and health benefits (Sapolsky, et al.). As large U.S. corporations underwent competition and globalization, the social contract has become revised, favoring a more flexible, lower-commitment relationship (Kaysen). However, until the late 1980s, when

health insurance premium costs were escalating at double-digit rates, the implicit contract regarding health benefits remained relatively unaltered (Maxwell, et al.). Since the late 1980s, however, that contract has been broken, and there has been a significant decline in employment based health insurance (Oakley).

Decline in Employment Based Insurance

The U.S. health care financing system is based on the premise that most working age Americans and their dependents will receive health insurance through employment based insurance (EBI) products. EBI plans are the most common source of health insurance among nonelderly individuals in the U.S., providing coverage to nearly two-thirds of the population. However, despite a robust economy with a very low percentage of unemployed, the number of individuals who are working and who have no health insurance has been steadily increasing. In 1987, 14.6 percent of the work force, or 17.7 million workers were uninsured. In 1998, 18.1 percent of the work force was uninsured, or 24.7 million workers (Fronstin). The number of uninsured is increasing by nearly one million a year (Jones). By 2005, the number of uninsured workers is expected to reach 30 million (Thorpe).

Declines Among Retirees

In addition, recent studies have shown that older workers, ages 50 to 64, are most vulnerable if they sever their links to the workforce and employer-based coverages. These workers may lose their jobs as a result of illness, disability, early retirement, or layoff. At an age of increasing health concerns, such older workers are likely to be at high risk. Long periods without health insurance among this age group is often associated with

deteriorating health and lack of access to medical care despite declining health (Simantov, Schoen and Bruegman).

Causal Factors

EBI began declining significantly in the mid 1980s (Holahan and Kim), and continued to do so through the mid 1990s, with a number of studies indicating a variety of factors, such as the shift from goods to service sector jobs; a decline in real wages; an increase in the number of part-time and temporary jobs, decreasing unionization, and growth in health care costs (Acs; Kronick; O'Brien and Feder; Long and Rogers). Some researchers indicate that EBI began increasing again in the late 1990s, but cuts in Medicaid contributed to a net increase in the number of working uninsured (Gabel et al.). Other researchers determine that while there may have been an increase in EBI coverage, the increase represented more coverage for higher-salaried workers and less coverage for persons making low wages, thereby resulting in an increase in dollars spent, but again resulting in a net increase in the number of uninsured (Holahan and Kim). Others have concluded that there has been no increase--that such a reported increase related to a difference in the way the Bureau of Labor Statistics' (BLS) Current Population Survey (CPS) queried respondents regarding their health coverage (Holahan and Kim; Guyer and Mann). CPS surveys 50,000 households on a monthly basis about employment, earnings, and demographics. In addition, another survey instrument, Employee Benefits Survey (EBS), also administered through the BLS, surveys businesses on various employee benefits plans. Some researchers have found discrepancies in findings between the two survey instruments (Herz, et al.) In addition, other researchers who have analyzed the

results of the CPS and EBS have concluded that minority workers, regardless of industry sector, are less likely than whites to have EBI coverage (Hall, et al.) Additionally, Mendoff, et al., in their study of April, 2001, concluded that coverage of African Americans, specifically, declined by 15 percent from 1979 through 1998.

Supply and Demand Issues

Researchers struggle over whether the decline in EBI has been directly related to decreased provision of health insurance by employers (*supply*) based on cost, or by decreased participation in employer-sponsored plans by employees (*demand*) (Shactman and Altman; Long and Marquis; Kreuge and Reinhardt). As premiums have risen, many companies which continue health benefits require a copayment of premium by employees. Many employees choose not to participate, thereby effectively reducing the number of covered lives the company provides for.

The increased cost of health insurance premiums has forced some companies to drop coverage, other companies to impose a contribution to premium on their employees. The Congressional Budget Office (CBO), in 1996, estimated that a one percent increase in premiums would increase the number of uninsured workers by 200,000. Since then a number of private economists have estimated that up to 400,000 workers lose their health coverage each time the premium increases by one percent (Rosen).

In addition to inflationary premium increases, certain proposed mandates are also anticipated to have an effect on premium. Pending legislation on antitrust exemptions for health care professionals is estimated to increase the cost of the premium by 8.6 percent,

therefore, having the potential impact of increasing the number of uninsured workers by more than 3 million (Frech and Langenfeld).

Structural Shifts in Employment

In addition to the issue of rising health care costs which may compel employers to drop or reduce coverage, research has also focused on changes in the labor market, ranging from the rise of part-time, contingent, and other "nontraditional" work arrangements to changes in the industrial mix of employment, as jobs shift from sectors with high rates of coverage (manufacturing) to low rates of coverage (retail and services). Much of the initial literature on declining coverage rates sought to evaluate the hypothesis that decreases in coverage were prompted by structural shifts in employment. Long and Rogers reported that as little as 15 percent of the coverage decline was due to employment shifts from high coverage to low coverage industry sectors. Kronick in 1991 found that coverage patterns of workers were more an indication of rising costs than labor market shifts. Kronick and Gilmer, however, in 1999, attempted a different analysis by measuring per capita health care spending in relation to personal income for the longer period of 1979-1995. They found an increase of 62 percent in the ratio of health care expenditures to income accounts and a decline in the percentage of workers covered by their own employer.

Chollet added to this research by identifying industries, such as manufacturing, which act as "exporters" of coverage to dependent workers in other industries. For example, as manufacturing declines, coverage is affected in other industries. She found that for every 100 manufacturing jobs lost over a period of time, a net 15 workers in other

industry groups also lost their coverage. She concluded that the increase in health care costs throughout the 1980s increased the burden placed on and across industry sectors to provide coverage.

Characteristics of Businesses Which Do Not Offer Health Insurance

The majority of the working uninsured are employed by the smallest of businesses, with 80 percent of micro-companies (fewer than 5 employees) offering no insurance, and 60 percent of businesses with fewer than 50 employees offering no insurance (Urban Institute). Industry sectors which are more likely not to provide health insurance include agriculture, forestry and fisheries (69 percent do not provide health insurance); non-union construction (56 percent do not provide health insurance); retail trade (61 percent do not provide health insurance); and services (51 percent do not provide health insurance) (Reich).

Increase in Benefit Costs

Health economists have presented evidence that the most important factor behind the decline in EBI is the effect of declining real incomes and the rising price of health insurance (Schactman and Altman). Health benefits in 2000 represented approximately 20 percent of compensation costs for covered employees (Herz *et al.*) Most experts expected health benefit costs to continue to increase anywhere from eight to 12 percent in 2001 (Trevor). As has been demonstrated to date, increases are averaging 14 percent. Increases are largely being attributed to increases in cost of prescription drugs (Mercer Report).

Rise in Employee Cost Sharing

In 1988 employees paid approximately 26 percent of the premium for family coverage and 10 percent of the premium for single coverage (Gold). In 1998, these amounts increased to 32 and 24 percent respectively (Ginsburg and Gabel). The number of firms who sponsored fully funded family health benefit plans dropped from 51 percent to 21 percent over the same time period (Gold).

Willingness to Pay Issues Among Workers

There exists a considerable body of literature on Willingness to Pay (WTP) regarding the development of methods to measure health status preferences (Neumann and Johannesson; O'Brien and Viramontes; Johannesson et al.; Berwick and Weinstein; Thompson). These studies involve WTP measurements regarding life-saving therapies (Thompson; O'Brien and Viramontes) as well as WTP measurements regarding highly desired outcomes, such as in vitro fertilization (Neumann and Johannesson). Yegian et al. conducted a WTP measurement for working, non-poverty level adults in California and found the median of perceived costs of health insurance 200 percent greater than the median of the WTP. More than 60 percent of the sample responded that they were in excellent health; and 43 percent of the sample agreed with the statement: "Health insurance is not a very good value for my money." In addition, other studies present a longitudinal analysis of workers' lack of interest in participating in health insurance plans based on cost and absence of immediate need (Cooper and Schone).

Health Status of the Uninsured

There also exists a considerable body of literature on health status of the uninsured and the causal link between insurance coverage and clinical outcome (Ayanian et al.; Hadley et al.; Roetzheim et al.; Rabinowitz et al.; Shi.) All of these studies indicate that clinical outcomes are significantly worse for the uninsured, and that access and delay of treatment are significant issues.

Impact on Social Welfare Infrastructure

Various studies have demonstrated that uninsured adults tend to forego screening and diagnostic exams, such as prenatal treatment, pap smears, routine physical exams, mammograms, and prostate exams (Ayanian et al.; Hadley et al.; Roetzheim et al.; Rabinowitz et al.). These same studies indicate that when intervention is finally sought for conditions which might have been treated early if diagnosed, such intervention is costly to society, as in the case of emergency room admissions. Similarly, Ford, et al. discovered that uninsured women have higher cardiac risk profiles, are more likely to be smokers, hypertensive, and overweight. And Weissman, et al. found that admission rates at hospitals for conditions which could have been avoided if early intervention occurred were nearly double for the uninsured vs. the insured. Costs associated with these encounters have historically pushed the burden back on the public (Blakely).

Health Care Reform

Concern about the increasing numbers of working uninsured has been heightened by the concurrent tightening of resources by safety net providers due to cost control

initiatives by Federal as well as private payers. Improving health care access for the U.S. population remains one of the primary concerns of the Federal government.

The focus of reform has been to simultaneously control costs and improve access. The strategy on cost control has been to strengthen managed care initiatives. The attempt to improve access has focused on employers and their coverage of workers, specifically on small businesses, since more than half of the uninsured work for small businesses (Morrisey, et al.). The increasing emphasis of health care reform on the small business sector reflects recent business trends in the U.S. Between 1988 and 1995, the U.S. economy produced 12 million new jobs, of which two-thirds represented new jobs among small businesses (Gable, et al.) During this period the overall proportion of workers in firms offering EBI fell from 76.2 percent to 73.2 percent (Cooper, et al.). Several states undertook major policy initiatives to promote health insurance coverage by small employers, including legislation mandating specific types of benefits, facilitating purchasing alliances, and enacting small-group market reforms related to insurance rating and medical underwriting (Cooper, et al.; Gable, et al.; Helms, et al.). The effect of reform at the state level is mixed.

Nichols, et al. examined the effectiveness of insurance market reforms in increasing levels of coverage. Their study specifically focused on state-level reforms and made inferences concerning the impact of the Health Insurance Portability and Accountability Act (HIPAA) on lack of insurance, private insurance coverage, and managed Medicaid coverage. Their findings suggest that comprehensive small group insurance reform has resulted in some success, but falls short of generating large changes

in the numbers of uninsured (Nichols, et al.) McCall focused on small group health insurance reform in the state of New Hampshire, and concluded that establishing a community rating system, guaranteed issue, guaranteed renewal, and portability laws resulted in a decrease in the percentage of uninsured in the state and an increase in EBI (McCall, et al.).

Percy also found an increase in benefit offerings in the small group market in states where reform had been in place for more than three years and for those states that had implemented all types of reform (rating practices, guaranteed renewal, guaranteed issue, reinsurance, and limited pre-existing conditions) (Percy, et al.). Gabel took a comprehensive look at rating reforms across the 50 states from 1990 to 1997 and concluded that, although states have adopted policies limiting the use of rating factors to offset possible abusive rating practices, the overall effect is uncertain. The findings were inconclusive as to the impact on administrative cost and overall cost of coverage for small employers. They argue that health groups may opt to drop coverage or decide to self-insure in response to increases in premiums resulting from the elimination of rating practices (Gabel, et al.).

Between 1993 and 1997, there was a decline of more than 31 percent in the proportion of small businesses offering health insurance, and the primary reason for the decline was attributed to cost (Morrisey, et al.).

Summary

Because of costs associated with the high utilization of health care by U.S. citizens, premium costs associated with the provision of those services to the insured has

increased significantly over the years. Unable to compete globally while carrying the cost of insuring employee and family, many U.S. companies have either stopped providing health insurance or have begun providing insurance with a copay toward premium required of the employee. In addition, small start up companies, and certain industry sectors do not provide any health insurance benefits for their employees. When confronted with the decision to participate in the cost of health insurance, many employees, particularly young employees who consider their own health good will choose not to participate.

As a result, the number of working uninsured individuals in the U.S. continues to escalate. Research has demonstrated that an uninsured population lives a less healthy life style than an insured population and is less likely to participate in routine health maintenance. Further research has demonstrated that the uninsured population is more likely to allow health conditions to deteriorate to a point of crisis, thereby requiring expensive emergent and inpatient services, forcing the burden of payment for these services back on society. The growing issue of the uninsured is prompting conflicting private and public policy positions.

CHAPTER 3

THEORETICAL BASIS FOR THE STUDY

The literature surrounding EBI can be segmented among a number of theoretical structures. First, there is a body of literature which addresses the decline in EBI as a break in an implicit social contract between industry and workers. This literature more or less deals with the moral implications of such a break, implying that the break is employer-driven, and suggests that a result of such a break is a decline in work place loyalty.

There exists another body of literature which acknowledges a decline in work place loyalty, but looks to causal factors other than a change in employer behavior. Some of these factors are the shift from goods to a service industry, a decline in unionization, and an increase in the number of individuals desiring to work part-time for life-style reasons.

There is an economic literature basis for looking at price as the determinant of EBI decisions, following a supply and demand theory. This literature also encompasses the willingness to pay theory, studying the perceived value of health insurance versus the perceived value of money as employees are asked to consider copays.

Public policy literature examines the influence of Federal programs on EBI, in particular changes in the Medicaid program, as well as managed Medicare and a decline in employers' commitments to retirees. A body of literature concerning health status studies, implying that workers without health insurance will tend to forego basic preventative

screenings, contributes to the public policy literature as a declining health status has an impact on social welfare.

Working Theory for the Study

Drawing from the various theoretical approaches examined in the literature, for purposes of this study of small businesses in the City of Philadelphia, the following working theory was developed:

The decision of an employer to offer health insurance is positively influenced by the desire to develop and maintain an affiliate relationship with employees and is negatively influenced by the cost associated with developing and maintaining that relationship. This relationship between desire and cost is distorted by size of company. The larger the company, the more influence the desire for affiliation has; the smaller the company, the more influence the cost has.

Hypotheses

Using the economic theory regarding price as the determinant, the first hypothesis was designed to be a simple acknowledgement that for the Philadelphia marketplace price was the primary factor in decision making regarding paying for employee health benefits:

Hypothesis One

Premium prices are a primary cause of small businesses choosing not to provide health benefit to employees.

Continuing with the pricing theory, hypothesis two was developed to determine whether size of business, based on number of employees, was also a factor. The development of this hypothesis was based, first of all, on the results of other studies which demonstrated the delineation between small (fewer than 50 employees) and larger sized businesses in offering health insurance, and then assumed that on a drill down of those data, the smaller the company the less likely the company would be to offer health insurance. Part of this assumption is that revenue stream in a very small business would be more volatile than in a larger business, forcing decision making regarding spending on employee benefits. Another part of the assumption from which this hypothesis developed is based upon the causal theories, first of all in the decline in unionization, as very small companies would be less likely to be unionized, and secondly in the increase in number of part-time workers, as a less-formal human resources structure in a very small business might allow for greater flexibility in work time.

Hypothesis Two

Very small businesses (1-5 employees) in the city of Philadelphia are unlikely to offer health insurance to employees.

The third hypothesis was developed to test attitudes of employers regarding the implicit social contract. This hypothesis was developed based on the assumption that if there is a social contract at work, Philadelphia, being one of the oldest bases of employment in the U.S., would demonstrate such a social contract. Therefore, the underlying assumption is that employers desire to make or keep the contract, and in some

cases simply do not know how to do so. In order to determine whether this lack of knowledge was a factor, the hypothesis was developed to consider it a secondary factor.

Hypothesis Three

Lack of information about coverage choices is a secondary factor in small businesses' inability to access health insurance.

Continuing with the implicit social contract theory, the fourth hypothesis was developed to determine if similar-sized companies would differ in their potential offering of health insurance benefits based on the ownership or control of the company by a larger entity. The assumption in developing this hypothesis was that companies which were divisions or franchises of larger companies might be more likely to offer health insurance, as the direction would come from a corporate policy level. The basis for the corporate policy would probably be based on causal factors as well as the social contract. The policy at a corporate level would also be more difficult to change.

Hypothesis Four

Independent companies will be less likely to offer health insurance than similar sized companies which are owned by a larger corporation.

The fifth hypothesis does not derive from the theoretical literature, unless some assumption can be made that females tend to honor a social contract more than males. The fifth hypothesis was developed as a result of a pre-test of the market to determine potential response rate of the mail survey, from which it was noted that female owners or directors tended to respond more readily than male owners or directors. The gender difference

should be further researched in order to validate results found in this study. Such further research would add to the body of literature on this subject.

Hypothesis Five

Female-directed businesses will be more likely to offer health insurance than male-directed businesses.

Finally, assimilating the broad base of theoretical findings in the literature, the sixth hypothesis assumes that sector and location will be variables, based on the types of industry that seem to cluster in various parts of the city, and the characteristics of those businesses. The knowledge that financial firms, for example, tended to be older, established, traditional in work ethic and policy, and for the most part were located in the same part of the center of the city, was the basis for posing the hypothesis, with the assumption that other clusterings of industry sector might reveal similar patterns.

Hypothesis Six

Industry sector and location will be variables in the decision among small businesses to offer health insurance to their employees.

CHAPTER 4

METHODS

Setting

Employment-based health plans are the most common source of health insurance among nonelderly individuals in the U.S., providing coverage to nearly two-thirds of the population. However, the number of individuals who are working and who have no health insurance is increasing. The majority of this increase is represented by employees of small business, defined as between 1 and 50 employees. Recent studies indicate that employers of small businesses less than 50 percent likely to provide health insurance for their employees. The working theory for this research is as follows: the decision of an employer to offer health insurance is positively influenced by the desire to develop and maintain an affiliate relationship with employees and is negatively influenced by the cost associated with developing and maintaining that relationship. This relationship between desire and cost is distorted by size of company. The larger the company, the more influence the desire for affiliation has; the smaller the company, the more influence the cost has.

Recent studies have also demonstrated that individuals without health insurance tend to have a poorer health status than individuals with health insurance, with indicators of higher presence of chronic disease, greater percentage of nonhealthy lifestyles (smoking, lack of exercise, abuse of alcohol, and or narcotics), less access to diagnostic screening, and higher utilization of emergency rooms. As the number of working uninsured increases, concerns mount over public health issues as well as over the high cost of these

individuals to the provider side of the industry.⁹ A number of demonstration projects are underway throughout the U.S. in which some sort of public/private initiative is attempting to tackle the problem through a combination of tax credits, legislation requiring small businesses to offer insurance, and tax increase to fund risk pools. Some of these are discussed in Chapter 6.

Based on information obtained by the Greater Philadelphia Chamber of Commerce, more than 88 percent of all businesses in the city of Philadelphia are small, as defined by fewer than 50 employees. Small businesses employ more than 60 percent of the workforce in Philadelphia. The number of uninsured nonelderly adults in Philadelphia has increased by 34 percent over the last ten years, with more than half of the uninsured working full time.

Study Design

Information for this study is derived from a survey of small businesses in the city of Philadelphia. The survey was conducted in the Spring of 2001, and reflects the economy at that time. At that time the economy in the city was robust. Since the survey, a number of dot.com companies have announced bankruptcy. In addition, the tragic events of the terrorist attack on September 11, 2001 have resulted in a number of layoffs among some of the companies affected.

For the survey, businesses with 50 or fewer employees were surveyed by mail. A total of 4597 businesses were mailed surveys; there were 1289 (28 percent) responses. A

⁹Although not part of this research, other studies have indicated that low income jobs and limited educational levels of employees also contribute to lack of access to basic health care.

follow up of 200 randomly selected non responders took place by phone. The businesses were divided into two strata: "mail" and "follow up." The various hypotheses were tested by estimating the proportion p of responses in specified categories. The test for equality between p proportions was adapted to the stratified sampling context from the likelihood ratio test for the p sample, using the normal approximation to the binomial distribution.

Limitations

The analysis between respondents and non-respondents, or mail and follow up, confirms the validity of the survey responses. However, the limitation of this study is that the universe is the 4597 small businesses which are members of the Greater Philadelphia Chamber of Commerce. The Chamber charges an annual membership fee, based on number of employees. Therefore, businesses which are unable to afford the fee, or see no value in membership, are not included in the survey. Additionally, the Chamber makes available to member businesses the opportunity to purchase discounted group health insurance. Therefore, the results of the survey may be more biased to businesses which are more knowledgeable about health insurance and may not represent the totality of reasons why small businesses do not offer health insurance.

Data Collection Methods

A mailing list and mailing labels for small businesses (50 employees and fewer) was purchased from the Greater Philadelphia Chamber of Commerce. The mailing list was sequentially numbered. Using the mailing labels, a mailing was generated to 4597 small

businesses which are physically located in the city of Philadelphia. Mailing labels which addressed a woman as the owner/director/manager were segregated and a different color survey (yellow paper, vs. white) was used in order to identify responses from female owners/directors. The mailing included a cover letter, survey instrument (see Appendix), return stamped envelope and return stamped post card. Respondents were asked to send the completed survey in the return envelope and to separately mail the return post card indicating that they had returned the survey. The post cards were numbered to match the sequential numbering on the mailing list. Therefore, while the survey was anonymous, the companies which had returned the survey were able to be identified. A total of 1289 survey responses were received, but only 1008 post cards received, meaning that 281 of the respondents failed to send in the post card. Additionally, it was possible that some respondents returned only the post card and not the survey. The 1008 businesses identified by the post card were removed from the list. The remaining 3589 businesses were tagged with a second, random number. The list was then sorted in increasing order by the second number, and then the first 200 of the scrambled first numbers were selected for follow up phone calls. All of the phone call follow up responders indicated that they had not returned the survey (for a variety of reasons) and there was 100 percent response on the follow up.

Protection of Human Subjects

This study was approved by the Institutional Review Board of Temple University as Protocol #00-234. Responses were completely voluntary and anonymous.

CHAPTER 5

DATA ANALYSIS AND RESULTS

Analytical Methods

A total of 4,597 small businesses (50 employees and fewer) which are physically located in the city of Philadelphia and which are members of the Greater Philadelphia Chamber of Commerce were surveyed by mail regarding their decision to provide or not provide health insurance to their employees. Each one was sent a survey form.

Response rate was 28 percent, with 1289 business responding by mail. Of the non-responders, 200 were randomly selected for a follow up interview by phone. Phone responses were obtained from all 200 of these randomly selected businesses.

The compilation of data from two distinctly different response criteria from the survey posed an interesting problem for determining the statistical methodology in analyzing the results. It was considered important to measure the results of the survey of the non-responders for fear that those who voluntarily responded to the survey might not be typical of the entire universe of small businesses surveyed. However, the responders (28 percent response rate) represented a non-random sampling. The non-responders (100 percent response rate) represented a completely random sampling.

The set of businesses was divided into two strata: "mail" and "follow-up," respectively, those that responded by mail and those that did not respond by mail but consented to be surveyed by phone. In order to compare responses of the responders with responses of the non responders, the proportion p of responses in a specified category, such as "free-standing business" as opposed to "division" had to be estimated.

In many studies attempting to measure the influence of a variety of variables on decision making, a multivariate regression analysis is the preferred methodology because of its ability to achieve powerful results while retaining the effect of the influence of each of the variables. However, in this case, as the only continuous variable was the size of the company, and as the response categories were in part non-random, multivariate techniques would not work. One thought was to disregard the mail responses and do the analysis only on the completely random telephone responses. However, there were industry sectors represented in the non-random mail response that were randomly excluded from the telephone response. In addition, while there was a 100 percent response rate for the random telephone sampling, the sample itself was too small to analyze without losing the ability to provide reasonable confidence in the desired estimate for each cell. In addition, there was concern that while the selection of respondents was completely random, responses to questions may have been influenced by the personal voice to voice nature of the survey as compared with the impersonal paper survey completed by the respondents.

Therefore, after much thought and examination, the binomial distribution was determined to be the appropriate sampling distribution, with a control for size of business, rather than multivariate analysis. The reasons for this, again, is first of all, that while the

mail stratum represented 28 percent of the businesses surveyed, and therefore presented the promise of robust data gleaning, it was not random in the sense that respondents self selected. Second, while the number of businesses sampled for phone response (200) represented a completely random sampling, with 100 percent response rate, the sample itself, as noted above, was small enough to raise concern about small number samples.

However, by controlling for size of business, which was the only continuous variable, size of business, along with another variable, such as woman-directed, was looked at with regard to the association of offering health insurance. The control for size of business was important in order to prevent one variable hiding or exaggerating the effect of other variables. This was of particular importance in regard to the analysis of women-directed businesses, as there seemed to be a relationship between women-directed and division of a larger corporation. However, analysis revealed that there was no significant confounding.

The follow up study was originally designed out of a classic paper (Hansen), but was unable to be supported on any of the standard statistical packages. Therefore, modifications were made based on Bickel and Doksum, and the analysis was able to be directly programmed.¹⁰

In order to compare responses of the responders with responses of the non-responders, the proportion p of responses in a specified category, such as "free-standing business" as opposed to "division" was estimated as follows:

¹⁰ The author gratefully acknowledges the statistical analysis and calculations provided by Susan Bashein, Ph.D., of Data Analysis and Presentation, Berkeley, California

Let P_m be the proportion of mail responses in the specified category and let P_f be the proportion of phone responses in the specified category.

For example, of the 1,289 mail responses, 1,226 were from free-standing businesses, so

$$P_m = 1,226 / 1,289 = 0.95$$

for the category "free-standing" in the "mail" stratum.

Of the 200 phone responses, 150 were free-standing businesses, so

$$P_f = 150 / 200 = 0.75$$

for the category "free-standing" in the "follow-up" stratum.

Because there are different numbers of businesses in each of the two strata, the proportions of businesses in the specified category had to be weighted according to how large the strata were.

Let $W_m = 1,289 / 4,597 = 0.28$ be the proportion of businesses in "mail" stratum and let

$W_f = 3,308 / 4,597 = 0.72$ be the proportion of businesses in "follow-up" stratum.

Then p is estimated by the average of the two proportions, P_m and P_f , with each weighted by the proportion of businesses in the respective stratum:

$$P = W_m P_m + W_f P_f \text{ (Equation 1)}$$

which for the example is

$$p = 0.28 \cdot 0.95 + 0.72 \cdot 0.75 = 0.81.$$

Estimation of a 95 percent confidence interval for an estimated proportion P proceeds as follows. First note that there is no sampling error in P_m since the respondents comprise the entire stratum. A 95% confidence interval for P_f can be estimated by the

"score" method, which is shown there to be most appropriate even for small samples; call the lower and upper endpoints of that interval L_f and U_f , respectively. Then the estimated 95% confidence interval for p has lower and upper endpoints $WmPm + WfL_f$ and $WmPm + WfU_f$ respectively.

For the example of "free-standing" introduced above, the "score" method produces a 95% confidence interval for P_f with lower and upper endpoints of $L_f = 0.686$ and $U_f = 0.805$, respectively. These yield lower and upper endpoints of $0.28 \times 0.95 + 0.72 \times 0.686 = 0.76$ and $0.28 \times 0.95 + 0.72 \times 0.805 = 0.85$, respectively, for the proportion of "free-standing" businesses in the entire population.

If 95 percent confidence intervals are constructed for several proportions simultaneously, then each interval must be expanded slightly to assure an overall confidence of 95 percent.

The simplest way to do this expansion is to use the Bonferroni method (Bickel and Doksum), which works well for the small numbers of proportions considered simultaneously in this report. For a simultaneous confidence of 95 percent for n proportions, the Bonferroni method constructs confidence intervals with confidence level equal to $100 - (5/n)$ for each proportion.

For example, if confidence intervals are to be constructed for two proportions simultaneously, then the confidence interval for each proportion is constructed with a confidence level $100 - (5/2) = 97.5$ percent.

The test for equality between two proportions p and p' estimated from Equation (1) by

$$P = WmPm + WfPf \text{ and } P' = WmP'm + WfP'f$$

respectively, for two different groups of businesses, is adapted to the stratified sampling context in this report from the likelihood ratio test for the p sample model (Bickel and Docksum) using the normal approximation to the binomial distribution¹¹ as follows.

$$\text{Let } Uf = Pf(1-Pf)/Nf \text{ and } U'f = P'f(1-P'f)/N'f$$

in which Nf and $N'f$ are the number of businesses in each of the two groups within the "follow-up" stratum because that is the stratum in which the sampling variability occurs. The null hypothesis is $p = p'$; let Po be this common value.

If Po is estimated by

$$Po = P/Uf = P'N'f/1/Uf - 1/U'f$$

then

$$X^2 = 1/W^2((P-Po)^2/Uf + 9P'-Po)^2/U'f) \text{ (Equation 2)}$$

is referred to the X^2_1 distribution (one degree of freedom) to obtain the approximate level of significance; this approximation improves for larger Nf and $N'f$. If there are k proportions, e.g., p, p', p'' , etc., to be compared all together, the formula is extended and referred to the X^2_{k-1} distribution ($k-1$ degrees of freedom). If there are $2k$ proportions to be compared in pairs, then Formula (2) is first computed for each pair and then the results added and then referred to the X^2_k distribution (k degrees of freedom).

¹¹ This approximation will be poor if either pf or $p'f$ is very close to either 0 or 1, but for the only cases in which this happens in the data analyzed in this study, the reported levels of significance are either much larger than or much smaller than 0.05 and they are consistent with the confidence intervals which are accurate even in such extreme cases (Agresti and Coull)

For example, in the "follow-up" stratum, there were $Nf = 101$ businesses with 1-10 employees and $N'f = 99$ with 11+ employees. The proportion of these two groups of businesses in the "follow-up" stratum that were female-owned were $Pf = 0.059$ and $P'f = 0.081$, respectively.

Thus,

$$Vf = 0.059(1 - 0.059)/101 = 0.00055 \quad \text{and} \quad V'f = 0.081(1 - 0.081)/99 = 0.00075.$$

The proportions of female-owned businesses in the 1-10 and 11+ groups in the population were estimated as $p = 0.051$ and $p' = 0.088$, respectively, from which Po is estimated as

$$Po = (0.051 / 0.00055 + 0.088 / 0.00075) / (1 / 0.00055 + 1 / 0.00075) = 0.067$$

and Equation (2) gives

$$X^2 = 1/0.72^2 \left((0.051 - 0.067)^2 / 0.00055 + (0.088 - 0.067)^2 / 0.00075 \right) = 2.03$$

which, when referred to $X^2_{1,1}$, gives a significance level of 0.15.¹²

In the analyses in this study, the businesses were grouped according to the number of employees in the ranges

1-5
6-10
11-30
31+

¹² Because the grouping by number of employees of businesses in the mail stratum has no variability, we condition on that grouping in the "follow up" stratum.

with the exception that if there were too few businesses within some of these four groups, businesses were collected into two groups, 1-10 and 11+, instead.

These ranges were chosen for two reasons: (1) as illustrated in Figures 1, 2, 3, 4, 5 and 6, they appear to form a natural grouping and (2) as shown by Table 2, the numbers of businesses in each group within each stratum are relatively balanced.

Table 2. Percentages of Businesses Within Each Stratum, with Range of Number of Employees

Stratum	1-5	6-10	11-30	31+
Mail	31	29	19	21
Follow-up	28	21	33	18

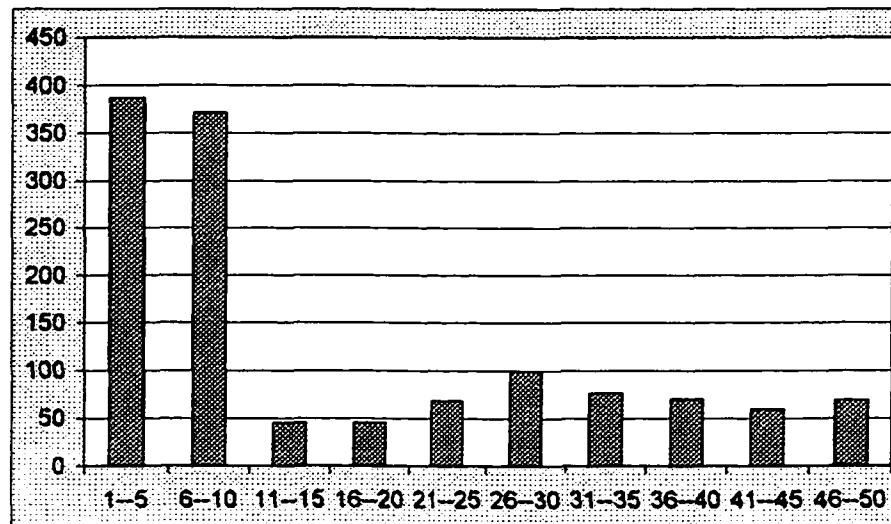


Figure 1. Number of Companies (Y axis) by Number of Employees, Mail Survey

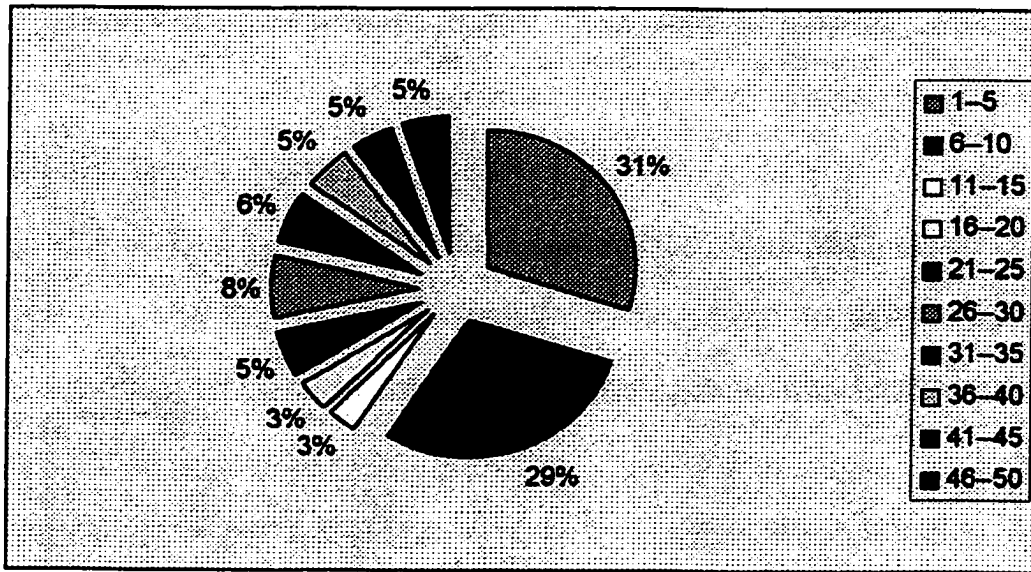


Figure 2. Percentage of Companies by Number of Employees, Mail Survey

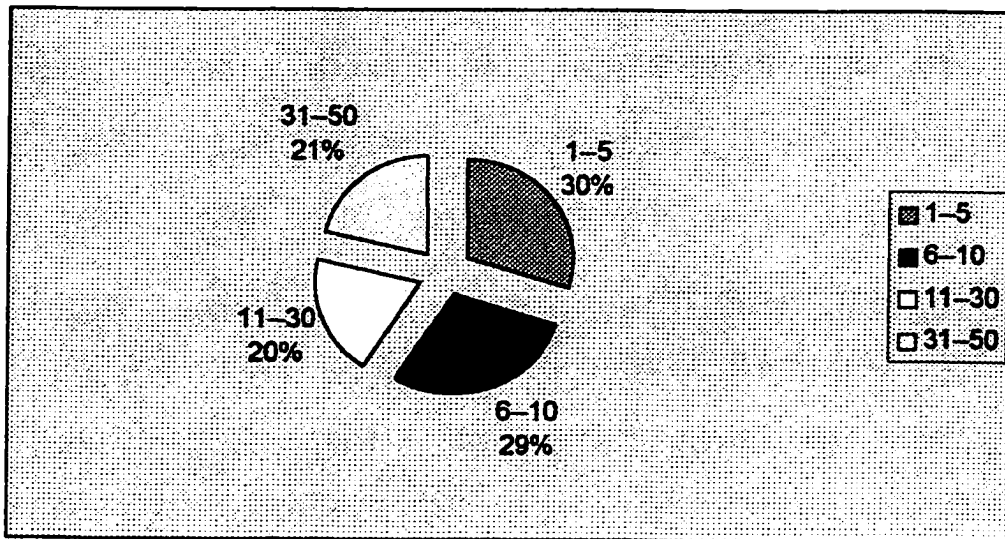


Figure 3. Percentage of Companies by Number of Employees, Larger Groupings, Mail Survey

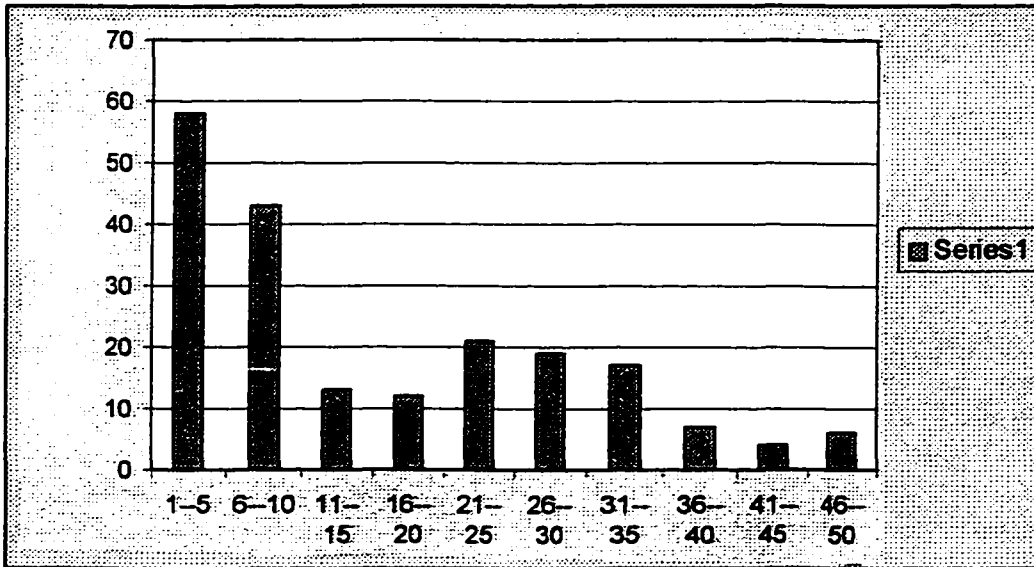


Figure 4. Number of Companies (Y axis) by Number of Employees, Follow up Survey

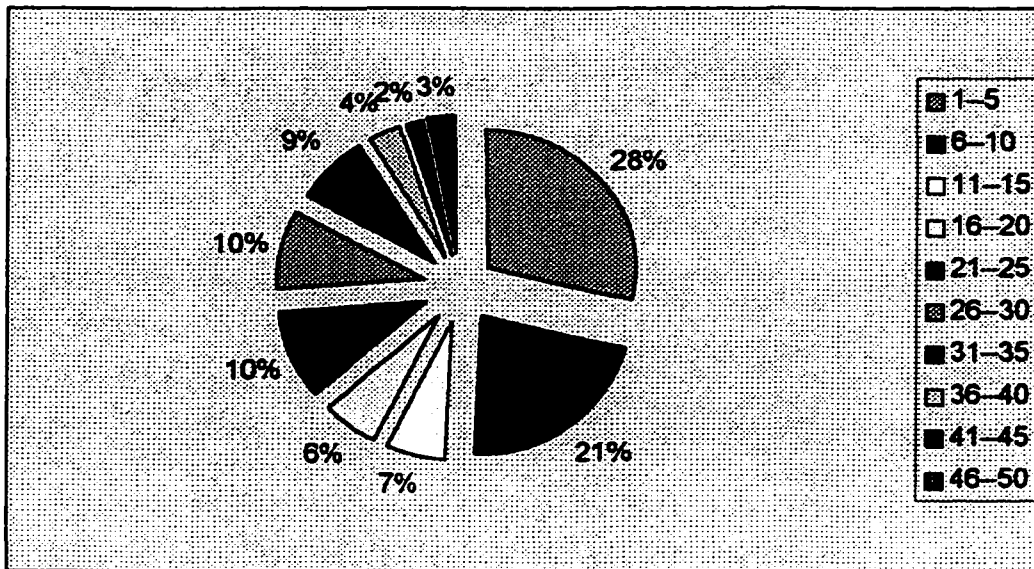


Figure 5. Percentage of Companies by Number of Employees, Follow up Survey

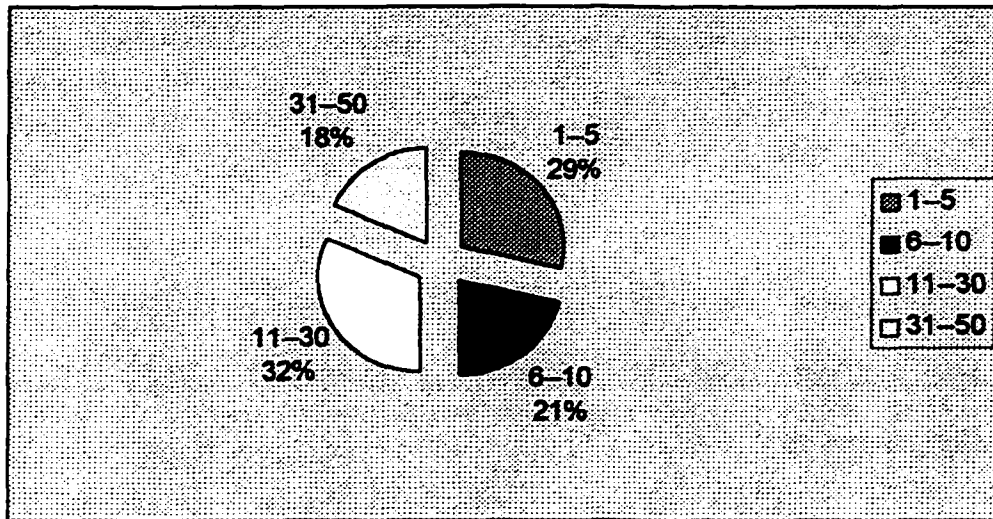


Figure 6. Percentage of Companies by Number of Employees, Larger Groupings, Follow up Survey

Price as a Factor in the Decision to Provide Insurance

Hypothesis One assumed that price was the major factor in a small business' decision to offer or not offer health insurance to its employees. To test that hypothesis, the survey asked respondents to state why or why not they offered health insurance, and the assumption was that for those who did not offer health insurance, price would be the major reason. The findings are very interesting.

Businesses that did offer health insurance were asked what was the main reason they provided health insurance for their employees. Many respondents supplied more than one main reason. Responses were self-identified, not chosen from a list, and fell into five broad categories:

1. **Compete**, which meant that the answer indicated that recruitment and retention of employees against competitors was a reason for offering insurance;
2. **Need**, which meant that employees had health problems;
3. **Policy**, which meant that the business was either a division of a larger company or was ordered to provide health insurance by a board of directors;
4. **Should**, which meant that the owner or directors felt a responsibility or moral obligation to provide health insurance;
- and 5. **Union**, which meant that the employees were part of a bargaining unit which required health insurance to be offered.

Table 3 shows the percentage, the individual 95 percent confidence intervals for that percentage, and the individual level of significance¹³ for the difference, if any, between the percentages for the 1-10 group and the 11+ group for businesses that gave a reason for doing so in the indicated category.

¹³ The level of significance for "Union" could not be computed for the difference between the size categories because none of the "follow-up" stratum businesses in the 1-10 group reported "Union" as their reason. However, the percentage of businesses in the "mail" stratum that gave "Union" as the reason was two percent in the 1-10 group and 13 percent for the 11+ group, so a one-sided Fisher's Exact Test (Bickel and Doksum) was used on the data from the "follow-up" stratum for the difference, if any, between the percentages for the 1-10 group and the 11+ group for businesses that gave a reason for doing so in the indicated category.

Table 3. Percentage (lower 95% endpoint, upper 95% endpoint) Giving Indicated Reason For Offering Insurance, and Significance for Group Size 1-10 vs. 11+

Reason	#employees		11+		Significance for 1-10 vs. 11+
	1-10				
Compete	28	(20, 40)	47	(39, 55)	0.005
Policy	19	(11, 31)	36	(29, 44)	0.008
Need	38	(27, 50)	4	(3, 8)	<0.0001
Should	8	(4, 18)	3	(2, 6)	0.15
Union	0	(0, 8)	9	(6, 15)	<0.1

The information presented in Table 3 above, is represented graphically in Figure 7.

It is interesting to note that of all of the businesses which responded to the survey, the businesses which offered health insurance cited the need to compete as the major reason, with 28 percent of the businesses with ten and fewer employers, and 47 percent of the businesses with 11 and more employees answering in this fashion.

Many payors assume that small businesses represent adverse selection risk, as the small business which wants to purchase health insurance is the small business which has sick employees, or sick dependents of employees. This assumption is partially borne out here, as 38 percent of businesses with ten and fewer employees identified "Need" as the main reason for offering health insurance. However, with size of company, this identification is lost, as in this survey "Need" drops to four percent of the response for companies employing more than 11 employees. This assumption appears to be present in the analysis which follows on the restaurant industry sector.

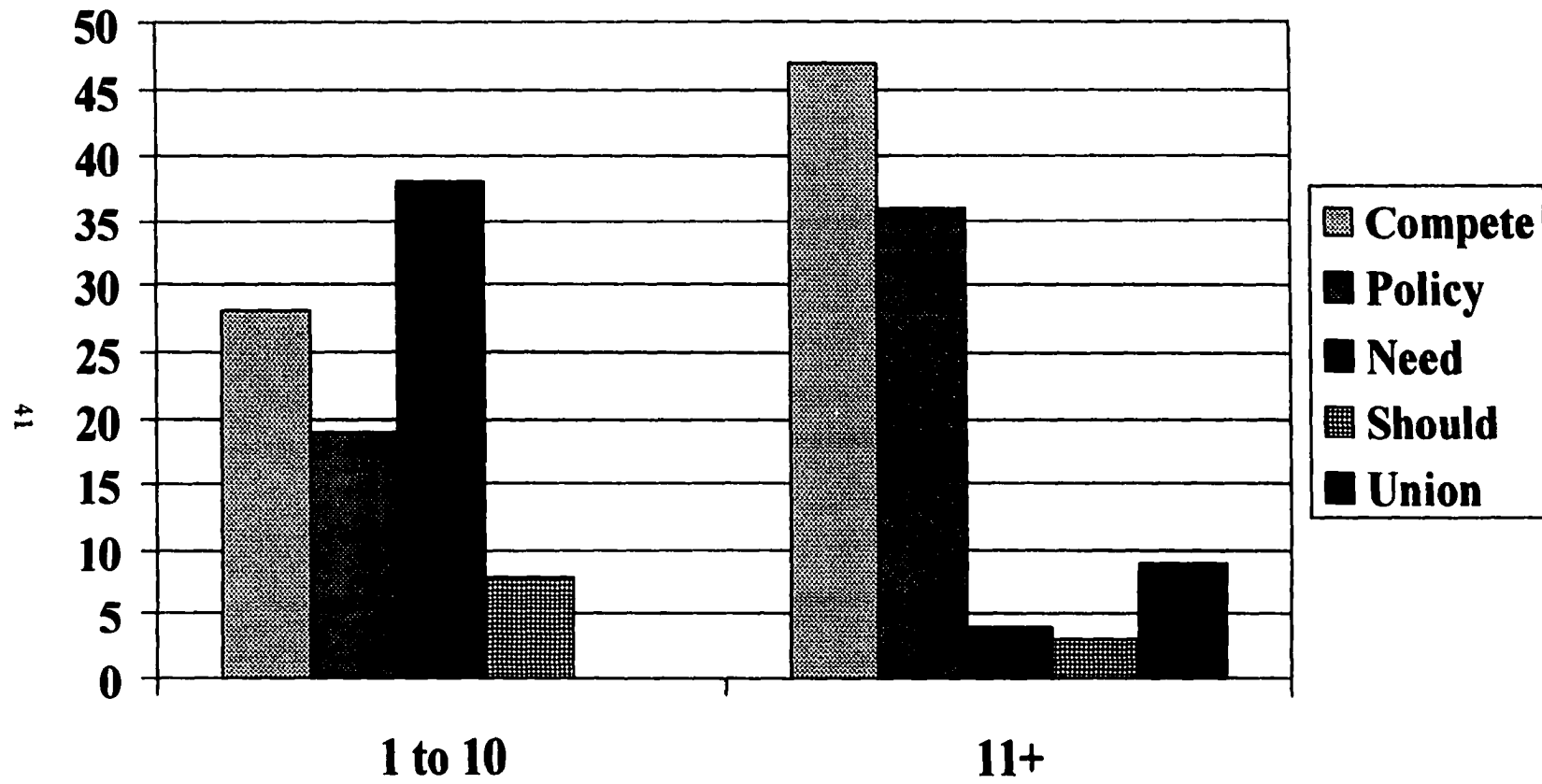


Figure 7. Comparison of the Percentages of Businesses in the Two Size Groupings Which Named the Same Five Reasons for Offering Health Insurance

The union issue appears almost insignificant here, but later it will be shown that, while companies that stated that they offer health insurance because of union negotiations represent only nine percent response, that nine percent response offered health insurance 100 percent of the time.

For each business that did not offer health insurance, the reason given was classified as one of the following:

- 1. Altern, which meant that employees had an alternative sources for insurance coverage, such as a spouse's coverage;**
- 2. Cost, which meant that the business considered health insurance too expensive;**
- 3. Healthy; which meant that the employees were considered healthy and not in need of insurance, often because they were young;**
- 4. No need, which meant that there were insufficient labor market forces to warrant providing coverage;**
- 5. No How, which meant that the owner didn't know how to get insurance;**
- 6. Part, which meant that the workers were part-time, and often meant that the owners chose part-time workers in order to avoid providing insurance; and**
- 7. Trying, which meant that the business has been unsuccessful in getting insurance.**

Table 4 shows the percentage, the individual 95 percent confidence intervals for that percentage, and the individual level of significance¹⁴ for the difference, if any, between the percentages for the 1-10 group and the 11+ group for businesses that gave a reason for doing so in the indicated category.

Table 4. Percentage (lower 95% endpoint, upper 95% endpoint) of Businesses Giving Indicated Reasons for Not Providing Health Insurance

Reason	# employees		Significance for		
	1-10		11+		1-10 vs. 11+
Altern	26	(20, 34)	21	(16, 36)	0.4
No Need	4	(2, 10)	33	(20, 49)	0.004
Part	19	(13, 27)	18	(8, 34)	0.9
Cost	12	(7, 19)	15	(6, 31)	0.6
Trying	18	(16, 24)	1	(1, 13)	0.0001
No How	13	(7, 20)	4	(4, 16)	NS
Healthy	3	(1, 8)	5	(5, 17)	NS

The information presented in Table 4 above is represented graphically in Figure 8.

The only significant differences based on number of employees were "No Need" (larger businesses were less subject to labor market forces) and "Trying" (smaller businesses had more difficulty getting responses from health insurance providers).

¹⁴ The levels of significance for "Healthy," "No How," and "Trying" could not be computed because none of the "follow-up" stratum businesses in the 11+ group reported any of these as their reason. However, the confidence intervals show that the difference between the 1-10 and 11+ groups is not significant for "Healthy" and "No How", so these were reported as "NS". The percentage of businesses in the "mail" stratum that gave "Trying" as the reason was 39 percent in the 1-10 group and one percent for the 11+ group, so a one-sided Fisher's Exact Test (Bickel and Doksum) was used on the data from the "follow-up" stratum.

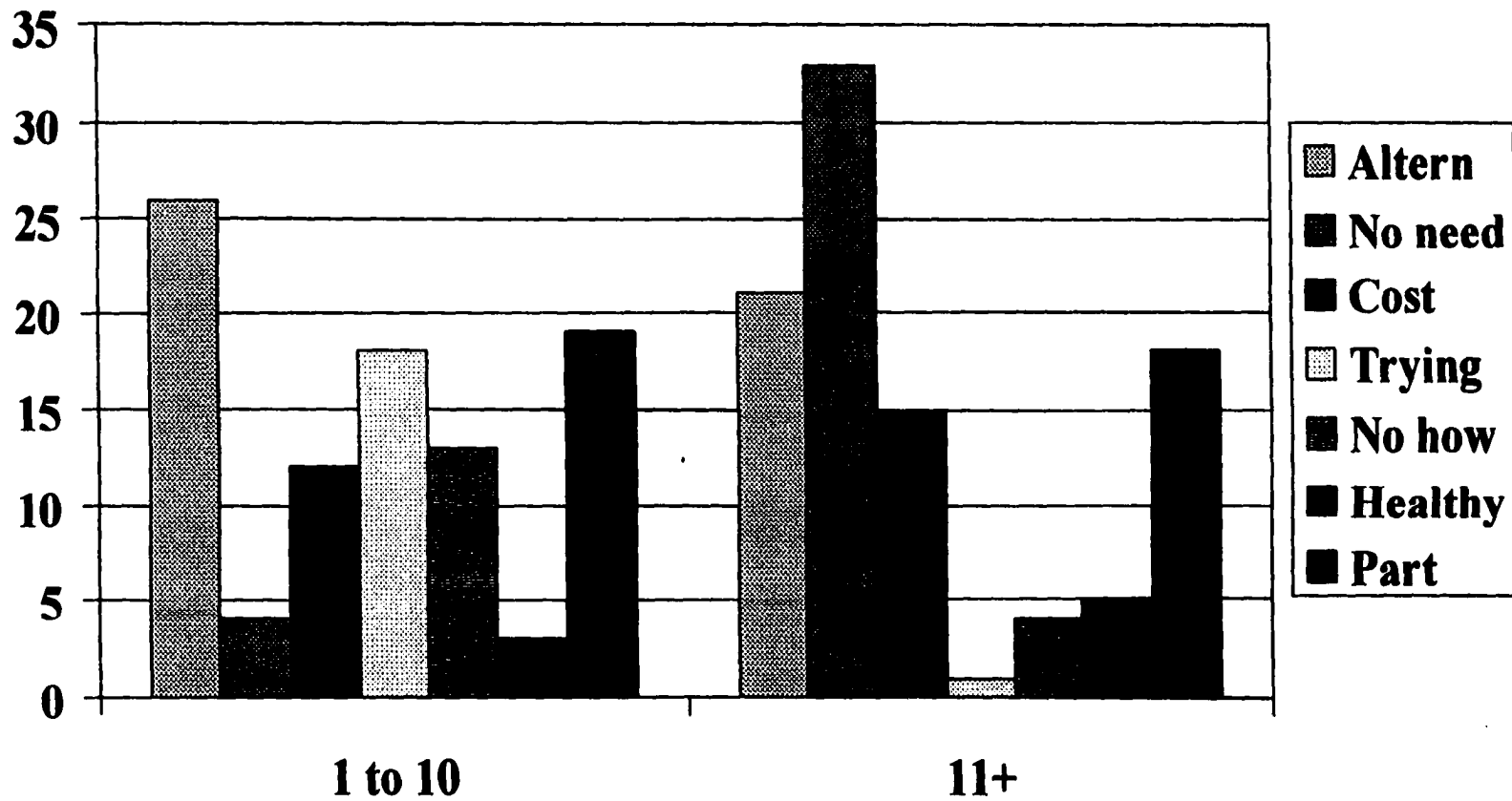


Figure 8. Comparison of the Percentages of Businesses in the Two Size Groupings Which Named the Same Seven Reasons for not Offering health Insurance

Therefore, price did not emerge as the number one reason for not offering health insurance. It is clear that when there was an alternative in place, the business chose the alternative rather than incurring the cost. It is also interesting to note the number of responses regarding part time help. Clearly there is some cost avoidance going on; however, it is interesting to note that Price as a barrier was only fourth on the list of self-reported reasons for not offering health insurance.

Size of the Company

Hypothesis Two assumed that the size of the company would have a direct effect on its willingness to offer health insurance, and assumed that the businesses with between one and five employees, and probably start up businesses, would be least likely to offer insurance.

This hypothesis was upheld. Only 24 percent of businesses with between 1 and 5 employees offered health insurance, compared with 81 percent of businesses with more than 31 employees.

Table 5 shows the percentage of businesses that offer health insurance for businesses grouped by number of employees. Also shown, in parentheses, are the lower and upper endpoints of simultaneous 95% confidence intervals for each percentage. There is a significant difference ($\chi^2 = 136.98$, $df=3$, $p < 0.0001$) between the percentages that offer health insurance in the four groups.

Table 5. Percentage (lower 95% endpoint, upper 95% endpoint) of Businesses that Offer Health Insurance, Based on Number of Employees

Number of employees	Percentage that offer insurance	(Lower, Upper)
1-5	24	(15, 36)
6-10	30	(20, 44)
11-30	67	(56, 75)
31+	81	(68, 86)

Lack of Knowledge about Acquiring Health Insurance

Hypothesis Three assumed that lack of information about how to access health coverage would be a secondary reason, after price, for small businesses deciding not to provide health insurance.

As noted in Table 4, above, the categories of "No How" and "Trying" capture the responses regarding lack of knowledge about how to buy health insurance. The levels of significance for "No How," and "Trying" could not be computed because none of the "follow-up" stratum businesses in the 11+ group reported any of these as their reason. However, the confidence intervals show that the difference between the 1-10 and 11+ groups is not significant for "No How," so these were reported as NS, not significant. The percentage of businesses in the "mail" stratum that gave "Trying" as the reason was 39% in the 1-10 group and 1% for the 11+ group, so a one-sided Fisher's Exact Test (Bickel

and Doksum) was used on the data from the "follow-up" stratum. The hypothesis was not upheld.

However, as was pointed out in the Limitations section on page 26, the universe of businesses surveyed were the small business Philadelphia members of the Greater Philadelphia Chamber of Commerce, an organization which makes health insurance available. Therefore, a different conclusion may be reached if the universe were the non-member small businesses. Also, it is somewhat surprising that among the smaller businesses, 18 percent were "trying" to get health insurance in spite of the fact that the Chamber to which they belong provides it.

Independent vs. Divisions of Larger Corporations

Hypothesis Four assumed that independent companies might be less likely to offer health insurance than companies which were divisions of larger corporations.

As is not surprising, the larger businesses, ranked by number of employees, tended to be divisions of larger corporations.

Table 6 shows the percentage of businesses in each group that are divisions, as opposed to freestanding. Larger business are much more likely to be divisions ($\chi^2 = 93.15$, $df = 3$, $p < 0.0001$).

Table 6. Percentage (lower 95% endpoint, upper 95% endpoint) of Businesses that Are Divisions of Larger Corporations

Number of employees	Percentage that are divisions	(Lower, Upper)
1-5	1	(0, 9)
6-10	5	(1, 17)
11-30	35	(24, 46)
31+	43	(28, 56)

The information presented in Table 6 above is represented graphically in Figure 9.

Table 7 shows the percentage of free-standing businesses and businesses that are divisions that offer health insurance. Also shown, in parentheses, are the lower and upper endpoints of simultaneous 95 percent confidence intervals for each percentage.

Significantly higher ($\chi^2 = 60.44$, $df = 1$, $p < 0.0001$)¹⁵ percentages of divisions offer health insurance than do free-standing companies. Further, although the number of businesses in the 1-10 group that were divisions was too small to make a definitive statement, the table suggests that even small divisions of larger corporations are more likely to offer health insurance than are large free-standing businesses.

¹⁵ Because there was only one business that was a division in the follow-up stratum in the first row of the table, and that business offered health insurance, the χ^2 statistic can be evaluated only for the second row of the table.

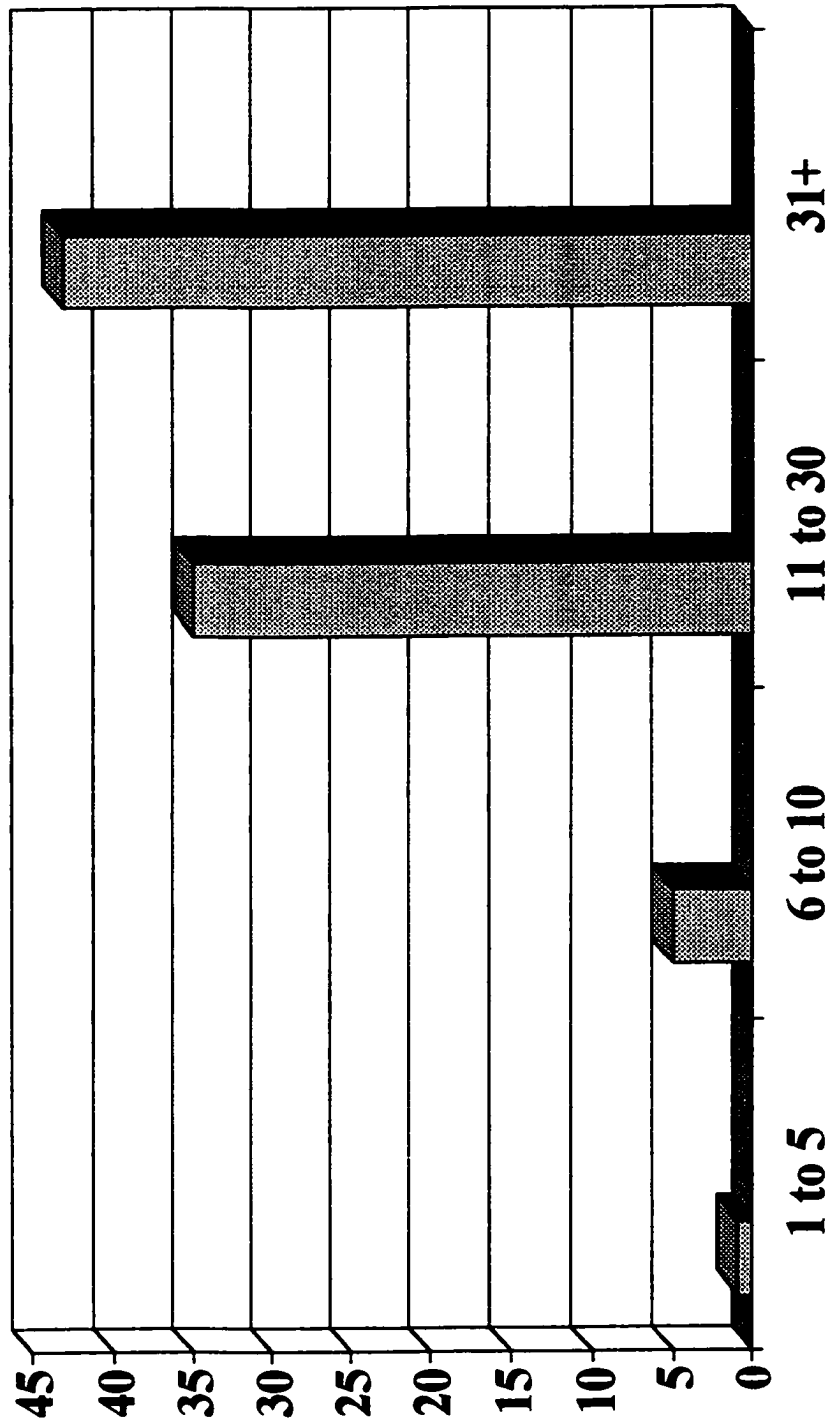


Figure 9. Percentages of Respondent Businesses that Are Divisions of Larger Corporations

Table 7. Percentages (lower 95% endpoint, upper 95% endpoint) of Free-standing Businesses and Businesses that Are Divisions that Offer Health Insurance

Number of employees	Percentage Free-standing	(Lower, Upper) Division
1--10	25 (17, 34)	99 (55, 99)
11+	58 (46, 68)	96 (87, 98)

The information presented in Table 7 above is represented graphically in Figure 10.

Therefore, 99 percent of the businesses which responded to the survey and were small (ten or fewer employees) divisions of larger corporations, provided health insurance. Similarly, 96 percent of the larger (11 and more employees) divisions provided health insurance. This hypothesis was upheld.

Female-Directed Businesses

Hypothesis Five assumed that female directed businesses might be more likely to offer health insurance than male directed businesses. Mailing labels with female names as owner or manager were segregated from the total mailing. While the mailing to these businesses was the same as the general mailing, the survey was printed on a different color paper, so that they could be identified when returned. Table 8 shows the percentage of businesses in each group that are female-directed. There is a weak suggestion that larger businesses may be more likely to be female-directed ($\chi^2 = 5.93$, $df = 3$, $p = 0.12$).

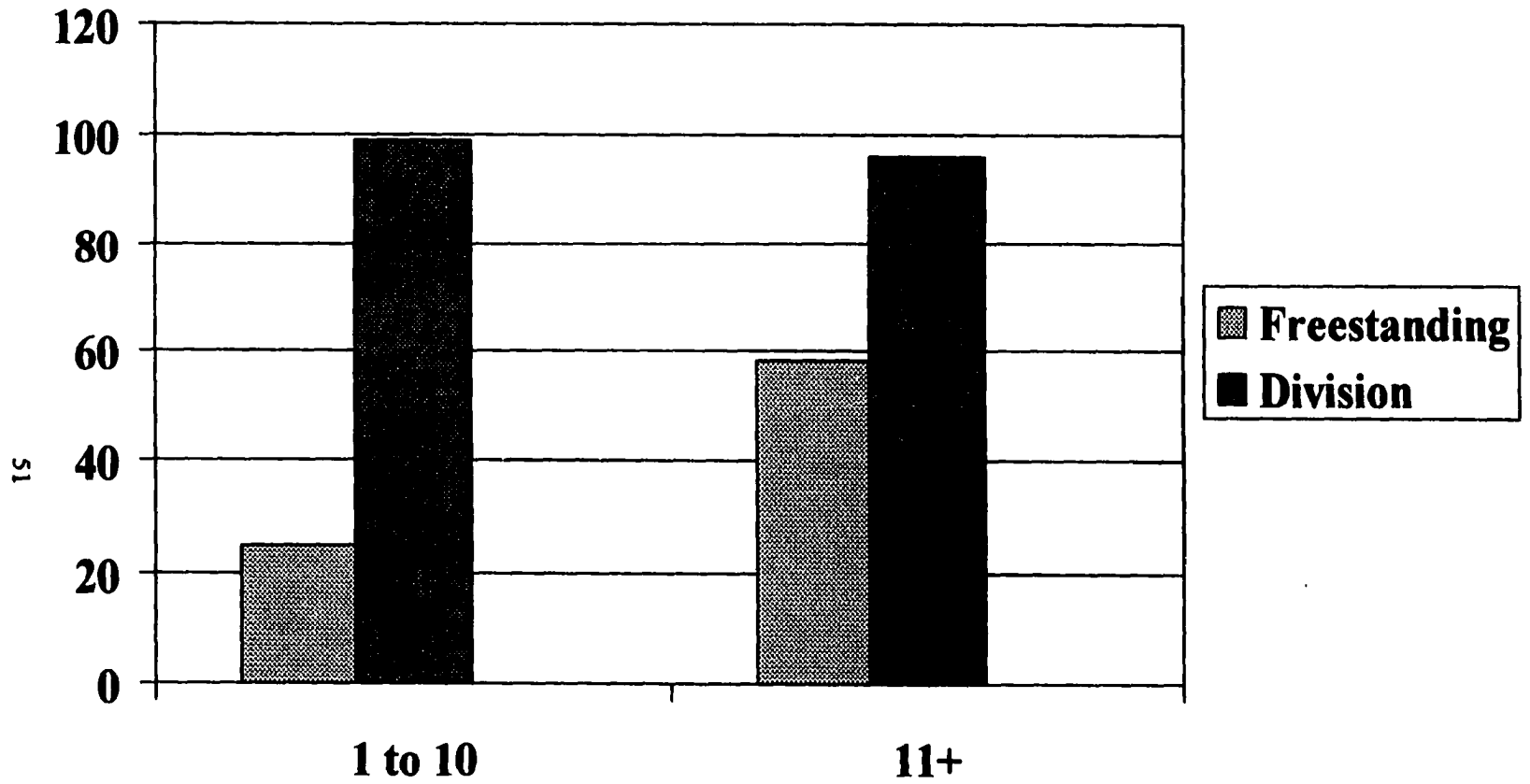


Figure 10. Comparison of Percentages of Free-standing Businesses and Businesses that Are Divisions that Offer Health Insurance

Table 8. Percentage (lower 95% endpoint, upper 95% endpoint) of Female-owned Businesses Which Offer Health Insurance

Number of employees	Percentage of Female-owned	(Lower, Upper)
1-5	3	(1, 11)
6-10	8	(3, 20)
11-30	6	(3, 15)
31+	13	(7, 27)

Table 9 shows the percentage of female-directed and not female-directed businesses that offer health insurance. Also shown, in parentheses, are the lower and upper endpoints of simultaneous 95 percent confidence intervals for each percentage.

Although Table 9 suggests that a higher percentage of female-directed businesses may offer health insurance, the number of female-directed businesses was so small that the difference was not statistically significant ($\chi^2 = 3.78$, $df = 2$, $p = 0.15$). Of the 101 businesses with 1-10 employees in the "follow-up" stratum, only six identified themselves as female-owned. Of the 99 businesses with more than 11 employees in the "follow-up" stratum, only eight identified themselves as female-directed.

Table 9. Percentage (lower 95% endpoint, upper 95% endpoint) of Female-directed and not Female-directed Businesses that Offer Health Insurance

Number of employees	Percentage Female-directed	Percentage Not female-directed
1-10	37 (18, 68)	26 (19, 36)
11+	87 (56, 95)	71 (62, 77)

The information presented in Table 9 above is graphically represented in Figure 11.

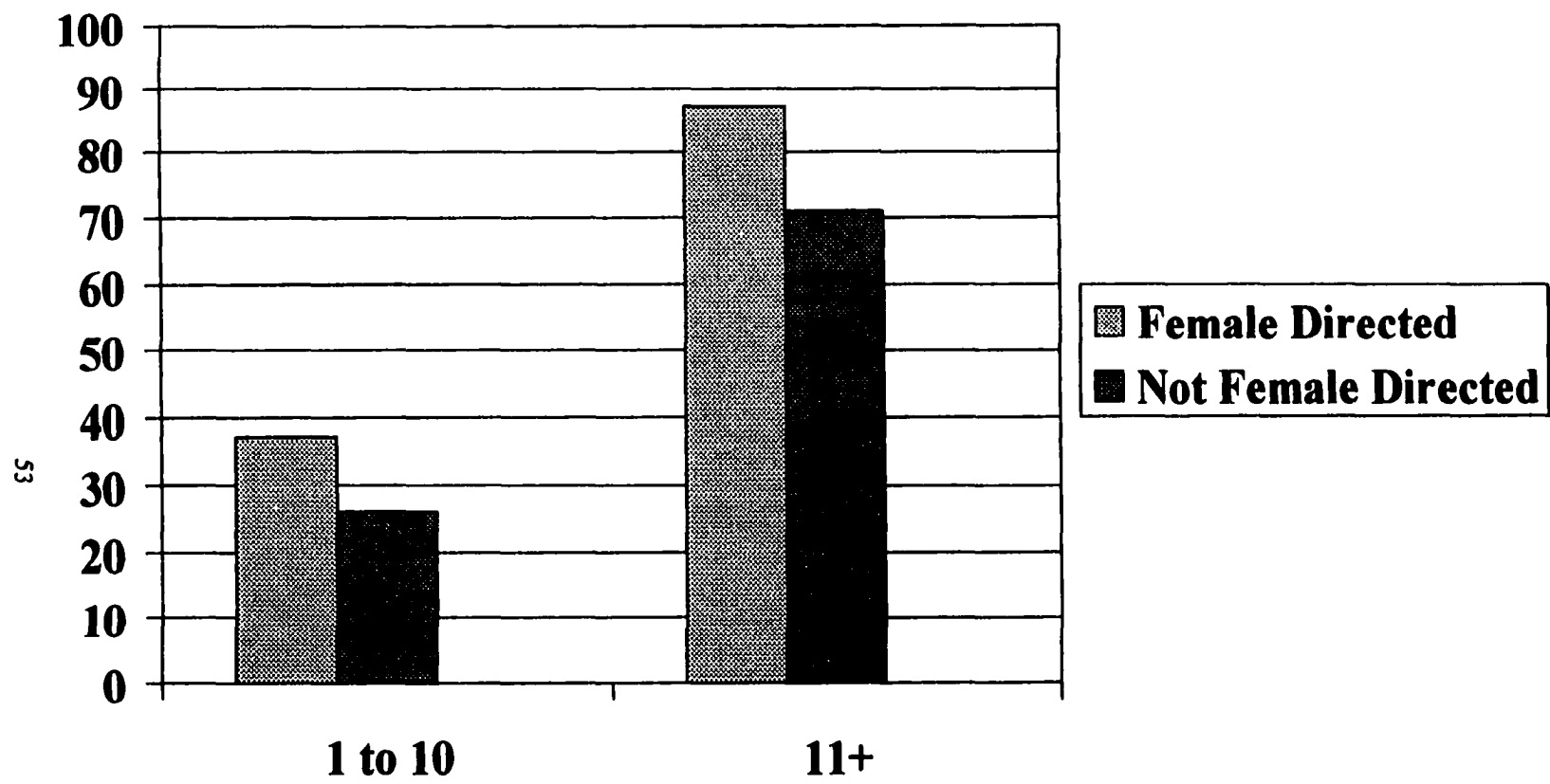


Figure 11. Comparison of the Percentages of Female-directed and non Female-directed Businesses in the Two Size Groupings Which Offer Health Insurance

While the data offered a weak relationship between being female-directed and offering health insurance, the question of confounding free-standing vs. division with female-owned became obvious.

Because divisions are more likely to offer health insurance than free-standing businesses are and because female-ownership may be associated with offering health insurance, the question of whether the latter association simply results from the former---because divisions may be more likely to be female-owned---had to be considered.

Table 10 shows the percentage of free-standing businesses and businesses that are divisions that are female-directed. Also shown, in parentheses, are the lower and upper endpoints of simultaneous 95 percent confidence intervals for each percentage.

There is no significant ($\chi^2 = 1.97$, $df = 2$, $p = 0.4$) association between a business being a division and being female-owned. Therefore, it is unlikely that the weak tendency for female-owned businesses to be more likely to offer health insurance results from an association between being a division and being female-owned.

Table 10. Percentage (lower 95% endpoint, upper 95% endpoint) of Free-standing Businesses and Businesses that are Divisions that are Female-directed

Number of employees	Percentage (Lower, Upper)	
	Free-standing	Division
1-10	5 (2, 11)	23 (8, 61)
11+	10 (6, 20)	7 (4, 18)

Industry Sector and Geography

Hypothesis Six assumes a relationship between industry sector, geographic area of the city, and the likelihood of providing insurance.

Businesses were asked to describe the industry sector in which they belonged. There were 588 distinct descriptions that business gave for themselves, including variants of the same type. The Bureau of Labor and Statistics breaks out sectors by Farm, Nonfarm, Private Industry, including services, and Government. Because the survey was directed at small businesses within the City of Philadelphia, there were no Farm or Government categories. For purposes of analyzing the results of this survey, the respondents were classified into major types, of which nine were of interest:

**Restaurant
Personal services
Finance
Medical
Computer
Retail
Manufacturing
Education
Professional services**

These categories were chosen because of interesting responses peculiar to each category. For example, a number of restaurant responders indicated that restaurants do not provide health insurance. Similarly, the medical category seemed to generate responses indicating that all businesses in the medical sector provided health insurance. The finance and professional services categories were later combined for the analysis.

For the two categories 1-10 employees and 11+ employees, Table 11 shows the percentage, and 95 percent confidence interval for the percentage, of all businesses that are of the indicated type and the percentage, and 95 percent confidence interval for the percentage, of the businesses of that type that offer health insurance. Empty cells in the table indicate that the number of businesses in the "follow-up" stratum was too small to be able to compute an estimate for the percentage that offer health insurance.

Table 11. Percentage (lower 95% endpoint, upper 95% endpoint) of all Businesses of Indicated Type, and of Indicated Type that Offer Insurance

Type	Of all businesses that are of indicated type		Of indicated type that offer insurance	
	# of employees 1-10	11+	#of employees 1-10	11+
Fin./Prof. Services	38 (31,45)	29 (23,36)	24 (14,37)	90 (78,93)
Professional Services	31 (26,38)	23 (18,30)	20 (10,34)	87 (73,92)
Retail	11 (8,16)	14 (10,20)	8 (2,32)	59 (37,71)
Restaurant	11 (8,17)	11 (8,17)	30 (13,51)	11 (4,36)
Medical	7 (4,12)	14 (10,20)	72 (44,88)	99 (82,99)
Finance	6 (4,11)	6 (3,10)	46 (17,64)	98 (66,98)
Personal Services	9 (6,15)	2 (1,5)	15 (5,39)	
Manufacturing	0 (0,3)	6 (3,11)		100(70,100)
Education	1 (1,4)	4 (2,8)	4 (4,64)	95 (50,95)
Computer	1(1,4)	1 (1,3)		

Totals exceed 100% because Finance and Professional Services are identified separately as well as combined.

The information presented in Table 11 above is represented graphically in Figure 12.

The above table categorizes the Finance sector independently and the Professional Services sector independently, but also combines them under the category Finance and Professional Services.

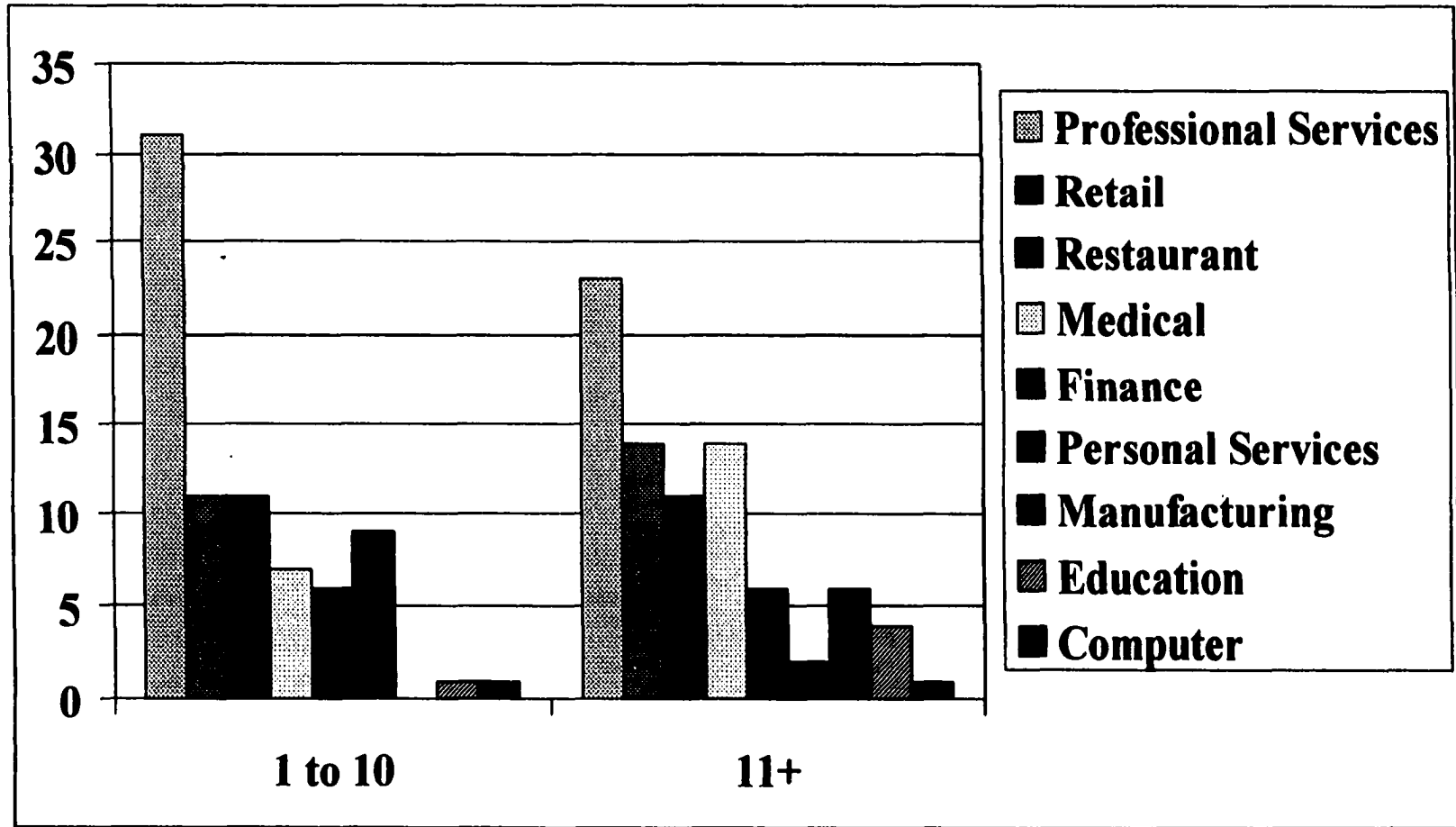


Figure 12. Comparison of Industry Representation in the Two Size Groupings

Financial and professional service firms with 10 and fewer employees represent 38 percent of all the firms that responded to the survey, financial and professional service firms with more than 11 employees represent 29 percent of all the firms that responded to the survey. Of the professional and financial service firms which offer insurance, 24 percent of the firms with fewer than 10 employees offer health insurance, yet 90 percent of the firms with more than 11 employees offer insurance. Looking at the finance sector separately, 98 percent of firms with 11 or more employees offer health insurance.

Conversely, restaurants with ten or fewer employees represent 11 percent of all of the businesses that responded to the survey, and restaurants with 11 or more employees represent another 11 percent. Interestingly, 30 percent of the restaurants which employ ten or fewer employees offer health insurance, but only 11 percent of those with more than 11 employees offer health insurance. A possible explanation for this might be that the very small restaurants are family owned and family staffed, and the family needs health insurance. Larger restaurants might have a more typical employer/employee relationship.

In general, the larger the business in terms of number of employees, the more likely the business is to offer health insurance to employees, with retail and restaurants being less likely to offer insurance.

The medical sector, the education sector, and the finance sector are very likely to offer health insurance when the number of employees is 11 or more. Manufacturing, however, tops the charts with 100 percent of the manufacturing firms of 11 employees and more offering health insurance. Clearly, this is the effect of the union issue identified earlier.

And finally, the computer industry represents only one percent of the businesses that responded in both size breakdowns, and doesn't make the chart in terms of companies that offer health insurance.

Location was also found to play a role. Table 12 shows the breakdown by zip code of the percentage of companies which offer health insurance for each zip code in which there were at least 20 businesses

Because the number of zip code areas is so large and the number of businesses in each zip code area that were in the "follow-up" stratum is so small, meaningful confidence intervals cannot be estimated and meaningful comparisons cannot be performed.

Nevertheless, there is a suggestion that the percentage of businesses that offer health insurance varies greatly among the zip code areas.

Table 12. Percentage of Businesses in Zip Code that Offer Insurance

Zip code	Percent	N
19102	87	40
19135	77	30
19132	72	22
19134	70	34
19129	69	24
19124	67	33
19125	67	37
19146	67	35
19106	65	33
19123	64	25
19150	61	23
19140	60	24
19120	56	46
19144	55	42
19107	47	55
19154	47	48
19116	46	43
19118	43	62
19136	42	24
19111	41	51
19122	41	28
19137	39	36
19131	37	27
19143	36	34
19114	35	43
19128	35	27
19148	35	37
19147	31	63
19145	30	34
19153	29	46
19151	24	23
19119	22	51
19121	17	22
19112	14	56
19115	14	27
19142	13	22

The zip codes are listed in descending order of percentages which offer health insurance. Zip 19102, which is center city, and the heart of the financial district, and where the major law offices and accounting firms are located, had 87 percent of its businesses which responded to the survey offering insurance. Zip 19107, which is also center city, had only 47 percent of the businesses which responded to the survey offering health insurance. Zip 19107 encompasses two medical schools and a large university hospital, but is also a strong retail and restaurant district, which would bring the percentage down. And finally, zip 19142, which is West Philadelphia, is largely small retail, personal services, and neighborhood taverns, and has only 13 percent of the businesses which responded to the survey providing health insurance.

Sick Days and Recruitment

Although not posed as hypotheses, the survey did question attitudes of respondents regarding the contribution of health insurance towards recruitment and to the number of sick days employees take. Questions asked were, "Do you believe that employees with health benefits take fewer sick days?" And "Do you believe that health benefits help to recruit qualified employees?" The latter question was answered indirectly in the analysis done regarding the first hypothesis on price, in that companies which offered health insurance self reported recruitment and competition as reasons for doing so. Table 13 shows the percentage of free-standing businesses and businesses that are divisions that responded affirmatively to each of the above questions.

For both questions, a higher percentage of divisions ($x^2 = 27.73$ and $x^2 = 27.73$, respectively, both with $df = 2$ and $p < 0.0001$) responded affirmatively.

Here again, divisions of larger corporations, regardless of their size, are more inclined to offer health insurance and more inclined to recognize the value of health insurance than free-standing businesses.

Table 13. Percentage (lower 95% endpoint, upper 95% endpoint) of Free-standing Businesses and Businesses that are Divisions that Answered Affirmatively to the Questions "Do You Believe That Employees With Health Benefits Take Fewer Sick Days?" and "Do You Believe That Health Benefits Help to Recruit Qualified Employees?"

Number of employees	Percentage (Lower, Upper)		Percentage (Lower, Upper)	
	Fewer sick days Free-standing	Division	Recruit employees Free-standing	Division
1-10	59 (50, 67)	73 (35, 88)	61 (52, 69)	73 (35, 88)
11+	58 (46, 67)	87 (75, 92)	58 (46, 67)	89 (77, 93)

Table 14 shows the percentage of female-owned and not female-owned businesses that responded affirmatively to the same two questions.

For the first question, a higher percentage of female-owned businesses ($x^2 = 11.83$, $df = 2$, $p = 0.003$) responded affirmatively, but for the second question, there was no significant difference ($x^2 = 3.57$, $df = 2$, $p = 0.17$).

Table 14. Percentage (lower 95% endpoint, upper 95% endpoint) of Female-owned and not Female-owned Businesses that Answered Affirmatively to the Questions "Do You Believe Employees with Health Benefits Take Fewer Sick Days?" and "Do You Believe Health Benefits Help Recruit Qualified Employees?"

Number of employees	Fewer sick days		Recruit employees	
	Female-owned	Not Female-owned	Female-owned	Not Female-owned
1-10	23 (12, 58)	61 (52, 69)	36 (17, 67)	63 (54, 71)
11+	60 (30, 74)	70 (61, 76)	69 (37, 77)	70 (61, 76)

Note: For purposes of this table, Female-owned refers to female-owned and/or female-directed.

Finally, Table 15 shows the percentage of businesses that do or do not offer health insurance that responded affirmatively to the same two questions. For both questions, as expected, a higher percentage of businesses that offer insurance ($\chi^2= 106.66$ and $\chi^2= 108.56$, respectively, both with $df = 2$ and $p < 0.0001$) responded affirmatively, although the difference was most noticeable for the larger businesses.

Table 15. Percentage (lower 95% endpoint, upper 95% endpoint) of Businesses that Either Offer or Do not Offer Health Insurance that Answered Affirmatively to the Questions "Do You Believe Employees With Health Benefits Take Fewer Sick Days?" and "Do You Believe Health Benefits Help to Recruit Qualified Employees?"

Number of employees	Fewer sick days		Recruit employees	
	Offer insurance	Do not offer	Offer insurance	Do not offer
1-10	61 (46, 73)	59 (48, 69)	67 (51, 77)	60 (49, 70)
11+	87 (80, 89)	22 (14, 42)	88 (81, 90)	23 (15, 44)

The smaller businesses (ten and fewer employees) have remarkable consistency in their response. Of these businesses that offer insurance, 61 percent answered affirmatively that employees with health insurance take fewer sick days. Of the businesses that do not offer insurance, 59 percent answered affirmatively to the same question. Similarly, the same small businesses answered similarly to the question regarding recruitment. Of the businesses that offer insurance, 76 percent believe that it helps in the recruitment effort. Of the businesses that do not offer insurance, 60 percent believe that by offering health insurance they might improve their recruitment efforts.

The larger businesses had a greater disparity, with, as is not surprising, 87 and 88 percent of the businesses that offer health insurance answering affirmatively to the two questions. Of those that do not offer health insurance, only 22 and 23 percent respectively answered affirmatively.

Other Survey Questions

One of the survey questions asked if businesses which currently do not offer insurance ever offered insurance in the past. Disappointingly, most did not respond to the question. Only 18 responses indicated that their business had offered insurance in the past; 139 answered no. But the remainder is a mystery.

Another of the survey questions asked if a copay on the part of employees contributed to the decision of some employees not to participate in a health plan. Again, there were

very few answers of yes or no to this question. There were a number of n/a responses for the companies that pay in full for full-time employees. Some companies which responded pay in full for some full time employees, some make insurance available but require a full payment by the employees. Of those two categories, only nine responses indicated yes, and there were not any no responses. Of the companies that require a copay of employees, there were 89 yes responses and 6 no responses. This is again disappointing.

CHAPTER 6

DISCUSSION

National Initiatives and Task Forces

There is significant interest in the uninsured in general on a national level and a great deal of discussion and philosophizing on a system in which individual access to basic health care benefits is controlled by business.

National foundations have organized various task forces and initiatives to study the issue of the working uninsured and the relationship between the business agenda and public health. One such initiative is the Task Force on the Future of Health Insurance for Working Americans, which is organized under the Commonwealth Fund in New York City. Another such initiative is the Access Project, which is a national initiative of The Robert Wood Johnson Foundation, which in turn provided a grant to the Heller Graduate School at Brandeis. The purpose of the grant is to have Brandeis identify potential grassroots community efforts in increasing access to health care of uninsured persons in their service area, and to have Brandeis provide assistance to those community efforts. Another such initiative is the Urban Institute's Assessing the New Federalism Project. In this project, the Urban Institute is maintaining a watch on 13 state initiatives in health care delivery and access. (Pennsylvania is not one of the states they are watching.) So far, most of this activity has taken place under the research and demonstration waivers under

Section 1115 of the Medicaid statute, and the State Children's Health Insurance Program (CHIP), which was part of the Balanced Budget Act of 1997.

Similarly, the Kaiser Foundation has a project entitled The Kaiser Project on Incremental Health Reform. This project is in part think tank, in that the project began in 1996 with a purpose of examining different strategies for expanding health care coverage, and solicited the development of proposals for the same from the following health economists: Linda Blumberg, Stuart Better, Rick Curtis, John Holahan, Pamela Loprest, Mark Merlis, Marilyn Moon, Mark Pauly, Wendell Primus, Tom Rice and Gail Wilensky. From proposals put together by those individuals, and subsequently others, the Project then focused on issues in three main areas: Federal entitlements vs. state discretion; tax preferences vs. direct subsidies; causes, costs and consequences of reductions in benefits. The Project is now in a stage in which it is interested in supporting efforts "to thoughtfully consider and evaluate the potential for and likely impact of alternative options."

Yet another project is the Council on the Economic Impact of Health System Change, which is part of the Institute for Health Policy at the Heller School of Brandeis. The Council is a research and analysis effort whose purpose is to bring about policy change by demonstrating factual need. A major focus is the increase in the number of uninsured and the decline in employment-based health insurance.

Another very interesting group is the Alliance for Health Reform, a bipartisan, not-for-profit group committed to the education of journalists, elected officials, and other shapers of public opinion, helping them understand the roots of the nations' health care problems and the trade-offs posed by various proposals for change. The Alliance has a group

working on employer-sponsored coverage and has received a grant from the Robert Wood Johnson Foundation to do further research and publish its findings. Another Robert Wood Johnson initiative is the Communities in Charge project. This is a project through which a consortium of agencies in 20 sites throughout the U.S. are researching and learning about the small business trends in their geographic area.

In addition, a web search identified the following organizations as researching the health insurance practice of small businesses in specific geographic areas:

- Maine Center for Economic Policy, Augusta, Maine
- Center for Community Care, Birmingham, Alabama
- San Mateo Health Services Agency, San Mateo, California
- Alameda Health Consortium, Oakland, CA
- District of Columbia Primary Care Associates, Washington, DC
- University Medical Center, Jacksonville, Florida
- Medcen Community Health Foundation, Macon, Georgia
- St. Louis 2003, St. Louis, Missouri
- Jackson Medical Mall Foundation, Jackson, Mississippi
- New Mexico Hospitals and Health Systems Assoc., Albuquerque, New Mexico
- University of Buffalo Clinical Center, Buffalo, New York
- Brooklyn Borough Department of Health and Human Services, New York, New York
- Multnomah County Health Department, Portland, Oregon
- MSSC Project Access, Wichita, Kansas
- Louisville-Jefferson County Health Department, Louisville, Kentucky
- Baltimore City Health Department, Baltimore, Maryland
- MaineHealth, Portland, Maine
- Palmetto Health Alliance, Columbia, South Carolina
- Community Voices, Inc., El Paso, Texas
- Indigent Care Collaboration, Austin, Texas
- Health Improvement Partnership of Spokane, Spokane, Washington
- Fresno Health Consumer Center, Fresno, California
- Health Consumer Center of Los Angeles, Los Angeles, California
- Orange County Health Consumer Action Center, Orange County, California
- Consumer Center for Health Education and Advocacy, San Diego, California
- Community Health Advocacy Project, San Francisco, California
- Health Consumer Center, San Mateo, California

Philadelphia

As stated earlier more than 88 percent of all businesses in the city of Philadelphia are small, as defined by fewer than 50 employees. The number of uninsured nonelderly adults in Philadelphia has increased by 34 percent over the last ten years, with more than half of the uninsured working full time.

Philadelphia is not unique in its situation. As pointed out above, the number of working uninsured is an issue of national attention.

Philadelphia in Perspective

The City of Philadelphia has not been identified as part of any of the national task forces currently experimenting with various initiatives and public/private partnerships. However, some of the findings from other markets bring an interesting perspective to the findings from this survey.

As mentioned above, the Robert Wood Johnson Foundation has been instrumental in researching the continued growth in the number of working uninsured. Recently, through the work of Campion, et al. they compiled the results of six independent surveys of small business employers in various parts of the country. The surveys, while individual, all focused on three broad categories:

1. **Characteristics of small firms that do not offer insurance.**
2. **Characteristics of employees in these non-insuring small firms.**
3. **Reasons reported by employers for not providing insurance**

To the extent possible, results of the Philadelphia survey are compared with the Campion compilation results in all three areas. In addition, other sources have done research which adds information in the same general categories, and are referenced as appropriate.

Characteristics of Firms Which Do Not Offer Health Insurance

Size

According to the Philadelphia survey data, the likelihood that a firm will offer insurance to employees increases as the size of the firm, based on number of employees increases.

The Campion compilation, for Denver; Brunswick, Maine; Salt Lake City; Madison, Wisconsin; the state of New Jersey; and the state of West Virginia showed the same findings.

Table 16 shows the distribution of size of companies and percent of respondents which offered health insurance in the Campion compilation.

Table 16. Distribution of Size of Companies and Percent of Respondents Which Offered Health Insurance.

# Employees	Denver	Brunswick Maine	New Jersey	Salt Lake City	West Virginia	Madison Wisconsin
1-5	26%	11%	43%	23%	5%	30%
6-10	47%	41%	54%	45%	25%	39%
11-20	52%	66%	75%	54%	49%	54%
21-39	67%	84%	83%	61%	51%	65%
40-50	72%	85%	85%	65%	62%	70%

Source: Campion et al.

Philadelphia's numbers display the same trend. Table 17 adds a column for the Philadelphia results.

Medoff, Calabrese, Shapiro and Harless, in 2001, examined labor market trends related to the receipt of health benefit coverage by workers over the 19-year period 1979 through 1998. In their findings, firm size also played a role; however, their findings also took into consideration industry sector.

First of all, they found that coverage rates decline among firms of all size, with the largest firms exhibiting the largest absolute rates of decline. Their analysis took into consideration all firms, not just small businesses. They found that for the period 1979 to 1998, firms with more than 500 employees dropped coverage by 21.7 percent. However, these firms started out with a higher coverage rate than the smaller firms, with an overall level of coverage at 86.3 percent, dropping to 64.6 percent. They found that coverage at

Table 17. Distribution of Size of Companies and Percent of Respondents Which Offered Health Insurance, Campion Results Compared with Philadelphia Results

# Employees	Denver	Brunswick Maine	New Jersey	Salt Lake City	West Virginia	Madison Wisconsin	Philadelphia
1-5	26%	11%	43%	23%	5%	30%	24%
6-10	47%	41%	54%	45%	25%	39%	30%
11-20	52%	66%	75%	54%	49%	54%	65%
21-39	67%	84%	83%	61%	51%	65%	68%
40-50	72%	85%	85%	65%	62%	70%	81%

Note: It is interesting that the State of New Jersey has the greatest percentage of companies offering health insurance in all size categories. In 1994, New Jersey enacted Small Employer Health legislation which mandates that small businesses offer health insurance to their employees. The legislation does not require small businesses to pay for the insurance, although many do in full or in part, but requires that health insurance be made available.

firms between 101 and 500 employees dropped from 50.8 percent to 45.9 percent, and at firms with less than 100 employees, coverage dropped from 43.9 percent to 39.5 percent.

In general, they found that the proportion of employment in large firms had fallen in declining industries, such as manufacturing, and risen considerably in the growth industries, such as services and retail. Of particular interest, they found that while retail and services as industry sectors were less likely to offer insurance than manufacturing, the larger the firm, the more likely it was to offer insurance, regardless of sector. Therefore, the migration of employees from manufacturing to large retail or service businesses did not result in as significant a decline as might have been expected.

The cross-cutting factor is that the larger firm sizes tend to be associated with higher coverage rates. Regression analysis confirmed that the trend toward larger firm sizes in services and retail industries mitigated what would otherwise have been an even larger decline in coverage.

Related to firm size, a concern raised out of the Champion compilation is that, based on their data, the lack of insurance among the "micro-firms," defined as having five or fewer employees is a very significant concern in that these businesses constitute approximately 49 percent of the total population of working uninsured.

For the Philadelphia market place, Figure 13 shows the percentage of businesses in both the mail and follow up strata by number of employees. Figure 14 shows the percentage of businesses by size which offer health insurance.

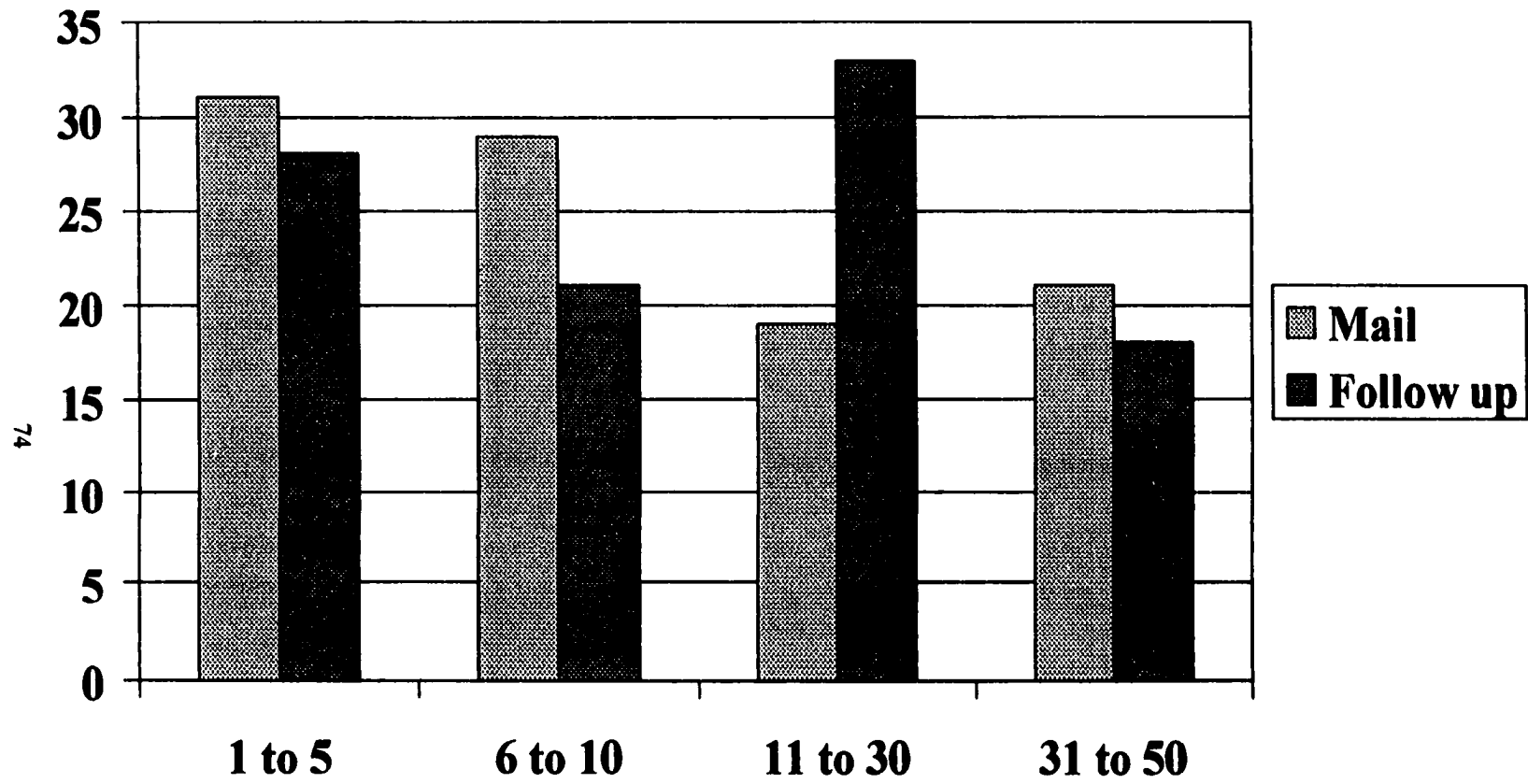


Figure 13. Percentages of Respondents, Mail and Follow-up Strata Ranked by Size as Measured by Number of Employees

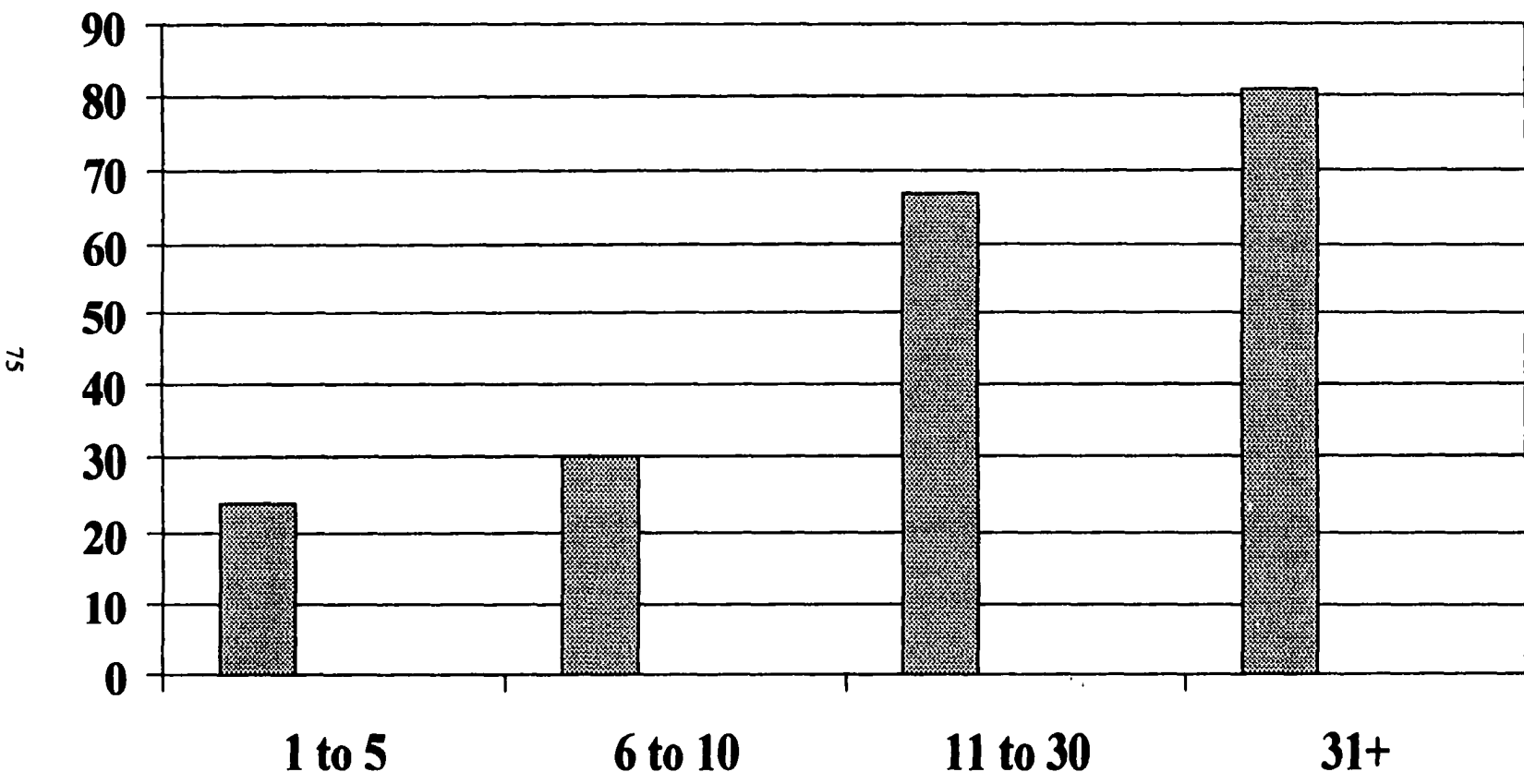


Figure 14. Percentage of Philadelphia Respondents Which Offer Health Insurance, Ranked by Size as Measured by Number of Employees

The survey results validate that for Philadelphia, the likelihood of offering health insurance increases with the size of the company, and that the micro-companies are far less likely to offer insurance than are larger firms.

Industry Sector

Recent changes in EBI have often been attributed to the shift in U.S. employment by sector, particularly from manufacturing industries in which strong unions negotiated generous health benefits, to a service economy, characterized by small firms, lower levels of unionization, a more mobile and transient workforce, and less likelihood of providing health insurance for workers. While many studies have attempted to address how much, on a national level, the decline in EBI is related to structural shifts in employment, vs. decline in coverage within industry sectors, it remains clear that industry sector is a major determinant of coverage of health insurance. Manufacturing remains highly likely to provide coverage; the services sectors are less likely to provide coverage.

In the Campion compilation, Manufacturing led the list of industry type which was most likely to offer health insurance to employees, with Denver indicating 79.5 percent of manufacturing businesses offered health insurance, Brunswick, Maine, with 66.6 percent; New Jersey at 82 percent; Salt Lake City at 77 percent, West Virginia at 80 percent and Wisconsin at 75 percent.

Figure 15 presents the percentage of industry type, by size, which offer health insurance, based on the Philadelphia survey. Manufacturing is at 100 percent.

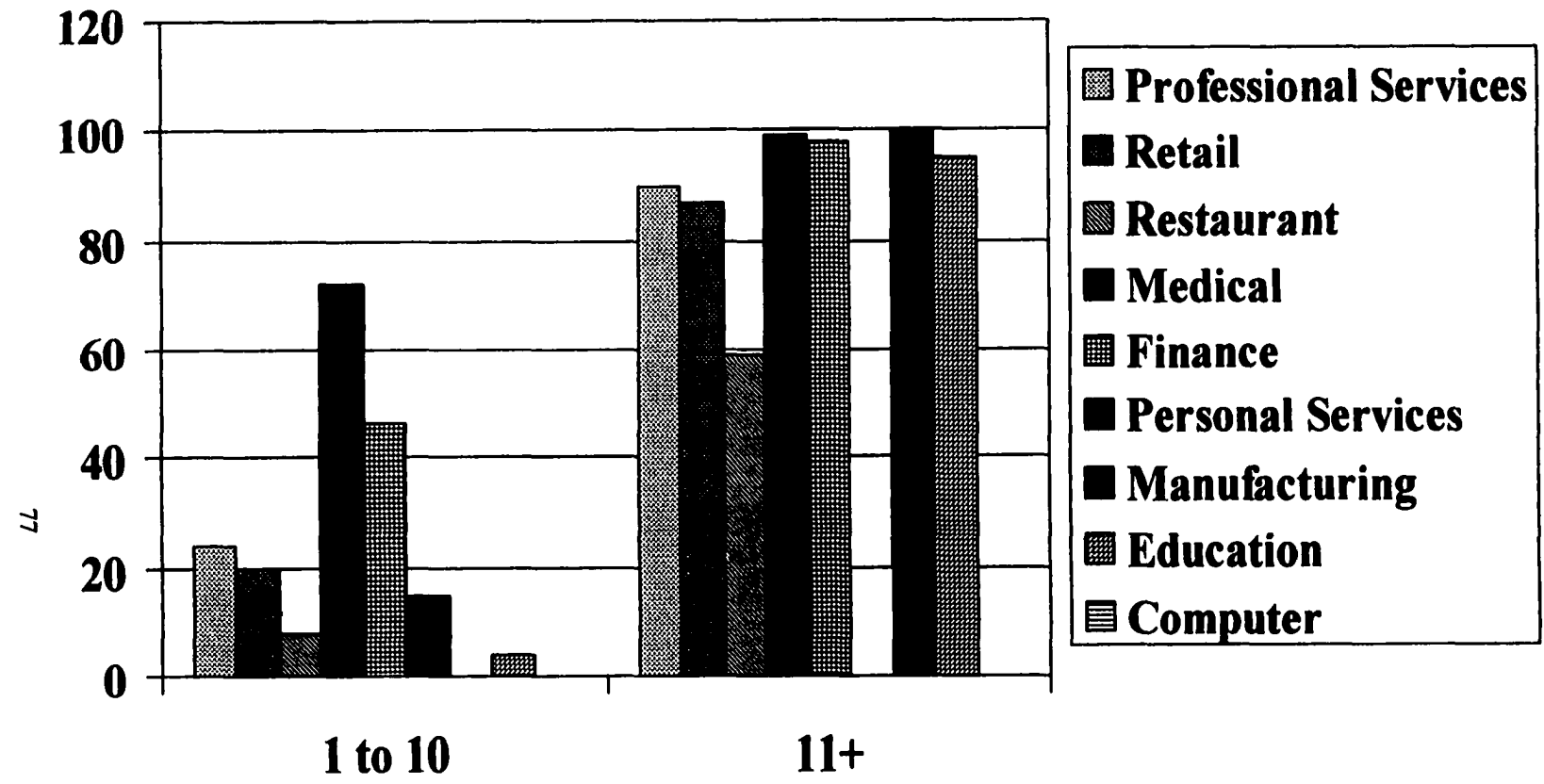


Figure 15. Percentage of Industry Type Offering Insurance

The Campion compilation also measured the percentage of small firms that offer health insurance in the retail, finance, and personal service sectors. Table 18 indicates results for Denver; Brunswick, Maine; the state of New Jersey; Salt Lake City; the state of West Virginia; and Madison, Wisconsin:

Table 18. Percentages of Small Businesses Offering Health Insurance, by Sector

Sector	Denver	Brunswick Maine	New Jersey	Salt Lake City	West Virginia	Madison Wisconsin
Finance	62%	48%	56%	58%	74%	50%
Retail	46%	Not reported	49%	Not reported	58%	Not reported
Personal Services	59%	49%	56%	58%	74%	49%

Source: Campion et al.

Table 19 incorporates the Philadelphia responses in the last column.

It should be noted that for Philadelphia, the percentage listed for Finance, is for businesses with between 11 and 50 employees, for Retail, the same, and for Personal Services, as there was not significance in the reporting for that size firm, the percentage is for firms with employees of ten and fewer. As the Campion compilation did not break out the businesses in two sizes, it is difficult to draw an exact comparison. An assumption is that the small sizes of the Personal Services firms in Philadelphia tended to bring down that percentage, confirming the micro-company effect described earlier. The high percentage of Finance firms offering insurance may be attributed to a combination of a

Table 19. Percentages of Small Businesses Offering Health Insurance, by Sector, Campion Results Compared with Philadelphia Results

Sector	Denver	Brunswick	New Jersey	Salt Lake	West Virginia	Madison	Philadelphia
Finance	62%	48%	56%	58%	74%	50%	98%
Retail	46%	Not Reported	49%	Not Reported	58%	Not Reported	59%
Personal Services	59%	49%	56%	58%	74%	49%	15%

robust economy at the time of the Philadelphia survey vs. the Campion compilation as well as the relative size of Philadelphia and its economic dependency on financial institutions as compared with the other survey sites.

Philadelphia responses indicate significant percentages of EBI coverage among the Finance sector, the Manufacturing sector, the Medical sector and the Education sector.

Manufacturing, nationally, is recognized as a traditionally high provider of EBI. In the Philadelphia survey, responses which indicated Union as the reason for providing insurance were all related to the Manufacturing sector. The Campion compilation did not break out Education and Medical; however, the Medoff, et al. 19-year analysis did find that the most significant increase in the provision of health benefits among leading growth industries was Medical Except Hospital, in which employment increased from three percent of the workforce in 1979 to more than five percent in 1998, and for which health coverage increased by more than 13 percent. The Medoff, et al. study did not break out Education as a sector. A possibility to consider is that while none of the Education respondents indicated Union as the reason for offering insurance, the National Education Association is a strong union presence and has taken a very strong stance on health care benefits.

Characteristics of Workers in Non-insuring Firms

Whether a characteristic of the firm (firms which by kind of business need only part-time workers, or firms which consciously choose to hire only part-time workers in order to avoid offering health insurance) or a characteristic of the worker (a person who chooses

for whatever reason to work only part-time), most studies confirm that very few small businesses offered health insurance to part-time workers.

The exception to this was the New Jersey survey in the Campion compilation. In 1994, New Jersey enacted Small Employer Health legislation, requiring businesses of any size to offer health insurance to all employees, full, or part-time. (Campion et al.)

The Wisconsin survey revealed that 83 percent of employers who provide insurance offered it only to full time employees (Campion et al.). Small firms that do not offer health insurance to employees generally have a greater proportion of part-time workers than small firms that do offer insurance. This pattern was also indicated in the Philadelphia survey. Table 4 showed that 19 percent of employers who had ten and fewer employees cited part-time workers as the reason for not providing health insurance, and 18 percent of the employers who had more than 11 employees citing part-time workers as the reason.

Four of the Campion compiled surveys queried employers to report the age, sex, and level of compensation for their employees. Age and sex are used in determining the premium for insurance in a non-community rated environment. Wage levels affect an employee's ability to afford premium contributions, as well as copayment and deductibles.

The responses from the four surveys indicate that in those areas the workforce of non-insuring small businesses is composed of a high percentage of younger employees.

Table 20 shows the breakdown by age of employees in non-insuring firms.

Table 20. Ages of Employees in Non-insuring Firms in Four Surveys

Age	Denver	Salt Lake City	West Virginia	Madison Wisconsin
16-19	5%	9%	2%	3%
20-29	24.8%	34%	27%	33%
30-39	26%	27%	31%	29%
40-49	20%	15%	23%	20%
50-59	14%	8%	9%	10%
60-64	7%	2%	4%	1%
65+	2%	2%	4%	1%

Source: Campion et al.

Non-insuring small businesses also have a higher proportion of female employees than insuring small firms. For example, in both Salt Lake City and Madison, more than 50 percent of the workforce of non-insuring small businesses is female, as compared to around 30 percent for the firms that offered insurance. This margin was much narrower in Denver, with the percentage of females in non-insuring firms just slightly higher than insuring firms. The cost of health insurance coverage for women of childbearing age is often higher than the cost of insurance for males in the same age bracket, because of claims for obstetrical services (Campion et al.).

While the Philadelphia survey did not specifically ask this information, some of the questions teased out similar information. As shown in Table 4, the findings of the other surveys are indirectly supported as alternative sources of insurance and healthy employees were identified as reasons why businesses did not feel obligated to offer health insurance.

When asked why they do not offer health insurance benefits to employees, the number one reason reported on the surveys was cost, as shown in Table 18. Small firms typically have lower profits than larger firms, and thus fewer resources with which to pay the high cost of premiums.

The second most prevalent reason given by small business employers for not offering health insurance is that many of their employees are insured elsewhere, usually under a spouse's plan. As a result, many employers felt that they did not need to offer coverage.

Various characteristics of the work force and labor market were cited next as important factors in the decision not to offer insurance. First, many small business employers stated that they can hire workers without offering health benefits. This factor varies across regions and across industries, often based on the demand for labor and whether the industry has traditionally offered coverage to employees.

In addition, a number of small businesses reported not offering insurance to employees because of difficulties in negotiating the insurance market. A significant number of employers said that they had trouble accessing the insurance market.

Table 21. Reasons Reported by Small Employers for not Offering Health Insurance

Factor	Denver	Brunswick Maine	New Jersey	Salt Lake City	Madison Wisconsin
Too expensive	64%	56%	69%	77%	49%
Alternate coverage	67%	46%	49%	63%	35%
Ready market, no need	42%	57%	33%	44%	35%
Employee turnover	19%	23%	22%	19%	13%
Employees don't want it	39%	16%	25%	12%	12%

source: Campion et al.

As shown in Table 4, Philadelphia small businesses listed the major reason as alternative coverage. Price is listed as the fourth most important reason.

On initial review, it might appear that Philadelphia differs from other surveyed parts of the country; however, the intentional hiring of part time employees is calculated cost avoidance, and one way of looking at the responses is to interpret a response of "I hire only part-time workers" as meaning "I can't afford health insurance, therefore I can only hire part-time workers." If those two categories were combined, the percentage would increase to 31 percent, which is still significantly less than surveys in other parts of the U.S.

The alternate coverage issue has been examined recently by Medoff, Calabrese, Shapiro and Harless (2001). They found that a labor market change potentially responsible for some of the overall decline in EBI coverage is the increasing rate of labor force participation by women. They found that female workers are nearly twice as likely to be covered under another worker's policy, typically, a spouse's policy. In 1998, approximately 30 percent of female workers were covered under some other employer's insurance, compared with 17.5 percent of male workers who were covered under some other employer's insurance. They found that as women increased their share of total employment since 1979, this differential is responsible for some share of the overall decline in workers' coverage rates; however, the amount of change that occurred since 1983 has been slight and cannot account for the larger decline in EBI coverage since 1988. A regression analysis confirmed that the effect of women in the labor force on declining coverage is small and in most cases not statistically significant.

Custer and Ketsche also found an interesting variable concerning gender. They found that men are only slightly more likely than women to be working in jobs that offer health insurance, but that women, when offered health insurance, were more likely to decline it than were men.

While the effect of women in the labor force may be small, there may be an indirect effect at work regarding spousal coverage. As the number of two-income families increases, the number of workers covered on a spouse's policy increases.

Of interest to the Philadelphia survey is the possibility that the indirect effect could take on larger proportions. Since the primary reason for the businesses which offered

health insurance was to compete for qualified workers, and the primary reason for businesses not offering insurance was the availability of alternate coverage, there seems to be an interesting dynamic at work. The greater the fraction of the workforce receiving benefits from someone else's policy, the less advantageous it would seem for employers to offer compensation in the form of health benefits.¹⁶ Employees covered by someone else's policy would see little benefit from the EBI offering from their own company, and in light of a copayment on premium, would likely opt out. A follow up survey on this issue would prove interesting.

¹⁶ There have been an increasing number of companies who refuse to cover health benefits if it is learned that a spouse has coverage elsewhere, according to lecture notes provided by Charles Hall, Jr., Ph.D., Chairman of this Committee and Professor Emeritus, Risk Insurance, Temple University.

CHAPTER 7

CONCLUSIONS AND IMPLICATIONS

Employment is the primary source of health care coverage in the United States. However, a declining percentage of workers at all wage levels and across all industries and occupations receive health benefits from their employers. The major reason for this decline on a national level is premium price. Containing business expenditures for health care costs is a major competitive initiative. Some businesses, in an effort to reduce costs, give employees the choice of either having health insurance, whether fully or partly funded, or having a portion of the cash which might have been expended in that effort. However, even with a cash outlay for those employees who choose not to take the insurance, the decline in EBI coverage represents a loss of compensation for workers, as well as a loss of access to health care. Small businesses (50 employees and fewer) are far less likely than larger employers to offer insurance, with micro-businesses (fewer than five employees) least likely to offer health insurance. A variety of national foundations and think tanks have funded and are studying initiatives across the United States in order to develop alternative models to traditional EBI. Philadelphia is not a site which is currently being studied.

The survey of small businesses in the City of Philadelphia confirms that for this marketplace, the decision to offer health insurance is positively influenced by the desire to develop and maintain an affiliate relationship with employees. The decision is negatively

influenced by the cost associated with developing and maintaining that relationship. The balance between desire and cost varies with the size of the company. The larger the company, the more influence the desire for affiliation has. The smaller the company, the more influence cost has.

For example, competition for employees is the driving reason motivating Philadelphia's small businesses to offer health insurance to employees, based on a survey of 4597 small business members of the Greater Philadelphia Chamber of Commerce. Barriers to offering health insurance include cost and lack of knowledge concerning health insurance. However, avoidance of offering health insurance, through alternative (spousal) coverage and the deliberate hiring of part-time workers appears to be an operative strategy among many of the small businesses that responded.

As in other parts of the country, the larger the firm, the more likely the firm is to offer health insurance. In the Philadelphia survey, divisions of larger organizations, regardless of their own size, are far more likely to offer health insurance than freestanding businesses. again,

Industry sector, along with size, also influences the decision, consistent with findings from other parts of the U.S. For example, firms with between 11 and 50 employees, which represent the sectors of Finance, Medical, Manufacturing, and Education, are very likely to offer health insurance, with more than 90 percent of responses in each sector offering insurance. Least likely to offer health insurance are the sectors of Personal Services, Restaurant, and Retail. The woman-owned or directed businesses in this survey have a tendency to be more likely to offer health insurance than

non-female owned or directed firms. The gender influence was not addressed in the other surveys. Center city firms are more likely to offer insurance than are firms in other sections of the city.

When compared with other regions of the United States surveyed regarding EBI practices, Philadelphia performs slightly better, in that in most sectors, it has a greater percentage of businesses offering insurance. While the hypotheses demonstrate that the desire among Philadelphia small businesses to offer health care benefits is compromised by cost, cost itself was not identified as the number one deterrent to providing health insurance.

Policy Implications

Because most Americans have EBI coverage, policy makers need to be concerned about the erosion of such coverage. The present study raises a number of questions.

One, assuming the demonstrated substantial variability in coverage by industry sector and firm size, to what extent are different solutions necessary to address the different sectors and groups?

Two, a drop in the proportion of employers fully paying for health care premiums puts the burden of picking up pieces of the premium cost on the workers, thereby effectively reducing wages. To what extent should the decision to avoid health care coverage be an entirely independent decision by the worker, given that studies have shown health status directly linked to health coverage?

Three, in Philadelphia in particular, it seems that small business employers appear to have incentives to provide weaker benefits in light of the availability of alternative

coverage and in light of the ability to hire part-time workers. As employers become more facile at identifying and recruiting workers who do not need or qualify for health benefits, are they likely to cut back even more on coverage? Should they be able to? In New Jersey, for example, under the Small Employer Health legislation, a small business has to offer insurance to every employee, full and part-time, whether or not that employee has alternative coverage.

Recommendations for Further Research

A weakness of this study is that the universe surveyed might be viewed as the "haves," in that all small businesses surveyed were members of the Greater Philadelphia Chamber of Commerce, which is a membership organization which charges an annual membership fee and which makes available to its member organizations discounted group health insurance. Therefore, it is likely that members of the Chamber are financially healthy enough to see value in paying for membership, and/or might be members in order to access the health insurance. This could be one of the reasons the four industry sectors of Manufacturing, Education, Finance, and Medical showed up in the greater than 90 percent range of offering health insurance. Further research in surveying the rest of the small businesses in Philadelphia might yield different results.

The zip code classification was interesting and might yield some additional findings if the non represented zips were surveyed and if the zips which showed lower levels of health care coverage were explored more fully in order to identify and survey in each category all other small businesses.

A large opportunity for research is the follow up on businesses which responded affirmatively to Question 9 on the survey? "If you have employees who choose not to participate, would you consider allowing a survey of your employees to determine a hierarchy of reasons for not participating?" There were 20 affirmative responses, complete with name and phone number of contact person. This opportunity for further research will add greatly to the understanding of employee decision-making in accepting EBI, with or without copays.

Finally, the area of gender influence needs to be explored. If the working theory is that there exists a tension between the desire among small businesses to offer health insurance to their employees and that that desire can be compromised by cost, and if female-directed businesses demonstrate a higher likelihood to offer health insurance than male-directed businesses, further exploration needs to take place in the area of the intensity of the desire among female-directed businesses in comparison with the intensity of the desire among male-directed businesses. If size of business has a direct relationship on the relative effect of cost versus desire, perhaps female-direction has a direct relationship on the relative effect of desire versus cost.

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APPENDIX A
THE SURVEY INSTRUMENT

- 1. How many employees do you have?**
- 2. What is your zip code?**
- 3. What is the best description of the kind of business you are in?**
- 4. Are you an independent company or a division of a larger corporation?**
- 5. Does your company provide health insurance for any of your employees?**
- 6. If your company provides health insurance, what is the main reason for doing so?**
- 7. If your company provides health insurance, which of the following applies:**
 - (a) company pays in full for all full time employees**
 - (b) company pays in full for some full time employees**
 - (c) company requires a copay for all employee**
 - (d) company offers insurance, but requires full premium payment by all employees.**
- 8. If you require employees to contribute to the cost of the premium, do you have employees who choose not to participate because of cost?**
- 9. If you have employees who choose not to participate, would you consider allowing a survey of your employees to determine a hierarchy of reasons for not participating? If yes, please print name and number of contact person at the bottom of this survey.**
- 10. Did you company ever in the past offer health insurance as an employee benefit or partial benefit?**

11. What is the main reason your company does not offer health insurance?

12. Do you believe that employees with health benefits take fewer sick days?

13. Do you believe that health benefits help to recruit qualified employees?

APPENDIX B

ZIP CODE MAP OF THE CITY OF PHILADELPHIA

