West Virginia
Employer Survey Report

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INSTITUTE FOR HEALTH POLICY RESEARCH

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Introduction

In 2002, the State of West Virginia (WV) was awarded a Health Resources and Services Administration State Planning Grant (SPG). The purpose of this program is to support states in developing strategic plans to provide comprehensive health care coverage for their citizens.

Since WV had already undertaken a major survey of uninsurance in the State, it had good data on West Virginians and their relation to health care insurance. The survey of uninsured estimated that 219,971 of the State's citizens, 19 through 64 years of age, had no health insurance, a rate of 19.9%—virtually one out of every five individuals. The survey further identified that, for some part or all of the past year (2001), 295,747 West Virginians, were without health insurance coverage. That is nearly one out of four (26.8%). In addition, the data showed that of those West Virginians least likely to have health insurance—working age adults—61% were employed.

Based on this information, one of the priority projects included in West Virginia's State Planning Grant application was an employer survey. Its purpose was to help the planners better understand the circumstances of West Virginia's private sector employers, and in particular, the differences between those that offer health insurance and those that do not. It also hoped to identify the concerns and issues that must be addressed to enable those employers who do not provide health insurance to do so.

Executive Summary

The West Virginia Employer Survey was undertaken to better understand the health insurance circumstances of West Virginia's private sector employers and the differences between those that offer health insurance and those that do not. The survey presents a comparison of employers on a variety of factors, such as size, industry sector, employee wage level and percentage of full-time employees. This report also profiles offering employers and non-offering employers. Together, the information provided—coupled with the remaining data gathered by the survey—provides a valuable benchmark to measure the success of future activities aimed at enhancing access to healthcare and reducing the uninsured working population of West Virginia.

The following represents major findings pertaining to health insurance and West Virginia's private sector employers:

- Forty-one percent of West Virginia's employers belong to the services industry category, and these employers account for 40.9% of the State's private sector workers. Mining and extractive industries constitute the smallest employment sector with 1.7% of the employers and 3.6% of West Virginia workers.

- The largest percentage of employers (65.8%) are small businesses with less than 10 employees. Only 10% of employers have 50 or more employees, although these employers account for more than 60% of the State's workforce.

- Seventy-three percent of employers have 75% or more of their workers employed full-time.

- Forty-two percent of the State's employers pay the majority of their workers between \$15,000 and \$25,000 a year.

- The most significant factors affecting an employer's decision to offer health insurance, ranked in order of their effect, are employer size, average employee wage and number of full-time workers. Firms least likely to offer insurance are those that fall into the low wage category, employ 10 or fewer employees, and have workforces composed of less than 25% full-time employees.

- All employers with 50 or more workers that offer health insurance coverage to their employees, extend that coverage to their employees' dependants.

- Employers that offer health insurance and have the largest percentage of their employees participating are employers with less than 10 employees. In over 80% of the businesses offering insurance, more than 50% of their employees participate in company health insurance.

- Most companies offering insurance pay 50% or more of employee-only premiums. The numbers diminish when it comes to dependent premiums, although more than half of all firms pay 50% or more.

- Less than 30% of employers in each size category provide retiree insurance. Those most likely to offer retirees coverage were large employers at 29% and major employers at 26%.

- Over 80% of non-offering employers cited cost as the primary reason for not offering their employees health coverage.

- While almost 59.7% of non-offering employers believe it is very important that employees and their families have health insurance, the majority of smaller employers (those employing less than 10 and 10 to 49 employees) do not believe they are able to contribute more than $50 to the cost of employee premiums.

About the Methods Used in This Report

The West Virginia Employer Survey was designed to give information from a random sample of 500 private sector employers in West Virginia.[1] Since the majority of West Virginia employers have three or less employees, it was decided to limit the definition of small employers to *4 through 9*, so that small employers would not overwhelm the random sample selection. In addition, large employers were over sampled to increase their representation in the survey. Within these guidelines, the sample of employers was selected first by size (that is, number of employees), then by region of the state and finally, by type of industry.

Telephone interviews were conducted with the person at the company who was most knowledgeable about health care benefits. The data collected were weighted to reflect that actual distribution of West Virginia employers according to their size.

For a more detailed description of the survey methodology, please see Appendix A.

In reading this report, it should be noted that the following definitions have been used:

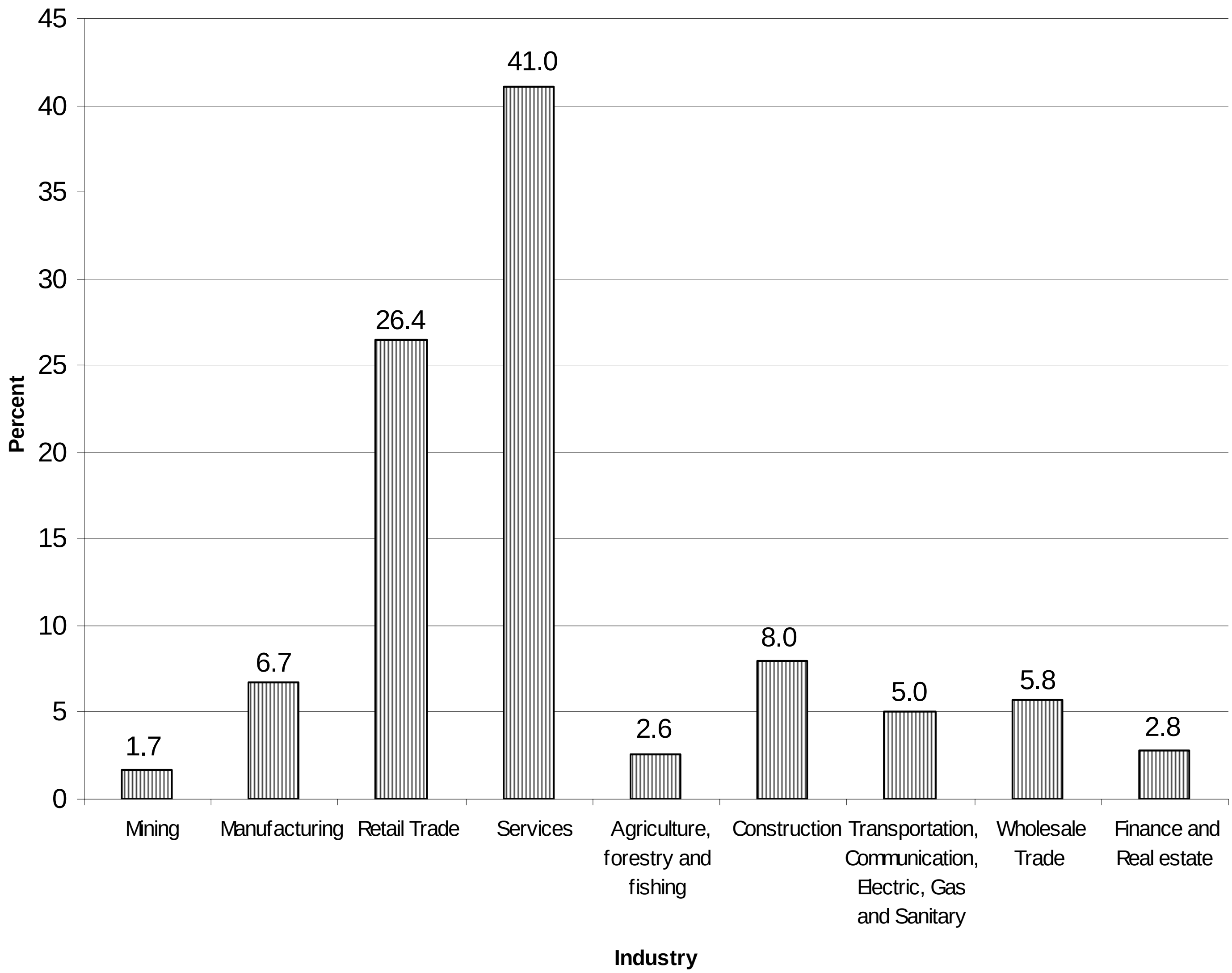
For employer size:	"Small employers"	4 through 9 employees
	"Midsize employers"	10 through 49 employees
	"Large employers"	50 through 99 employees
	"Major employers"	100 employees or more.
For employer wage range:	"Low wage"	majority earn less than $15,000
	"Moderate low wage"	majority earn $15,000 to $25,000
	"Moderate wage"	½ earn $15,000 to $25,000 and ½ earn $25,000 or more
	"High wage"	majority of employees over $25,000.

Throughout this survey report, the terms employer, firm, company and organization are used interchangeably.

[1] An additional 15 local government employers were also surveyed to identify differences that may exist between local public and private circumstances. Their data will be reported separately and therefore is not included in this report.

Overview of West Virginia Employers

Figure 1. Percentage of Employers Sampled, by Industry



The Services industry category makes up the major share of West Virginia employers sampled, at 41% of the total. The Services industry category includes a wide range of employers from health care providers and other professional firms, to community organizations such as private education and social services, as well as enterprises like restaurants and entertainment. For definitions of the industry categories used in this report, consult Appendix B**.**

The next largest employer type sampled is Retail Trade at 26.4%, followed by the Construction industry at 8 % and the Manufacturing industry at 6.7%

It should be noted that the numbers of employers do not necessarily relate to the numbers of employees working in that type of industry. For example, while 5% of West Virginia firms are classified as falling under the Transportation, Communication, Electric, Gas and Sanitary category, the number of their employees is substantially higher than those in the Wholesale Trade category—51,311 in the former category, versus 21,631 in Wholesale Trades. The following table (Table 1) shows the actual number of employees by industry, as well as the percentage of the total number of WV workers each industry category constitutes.

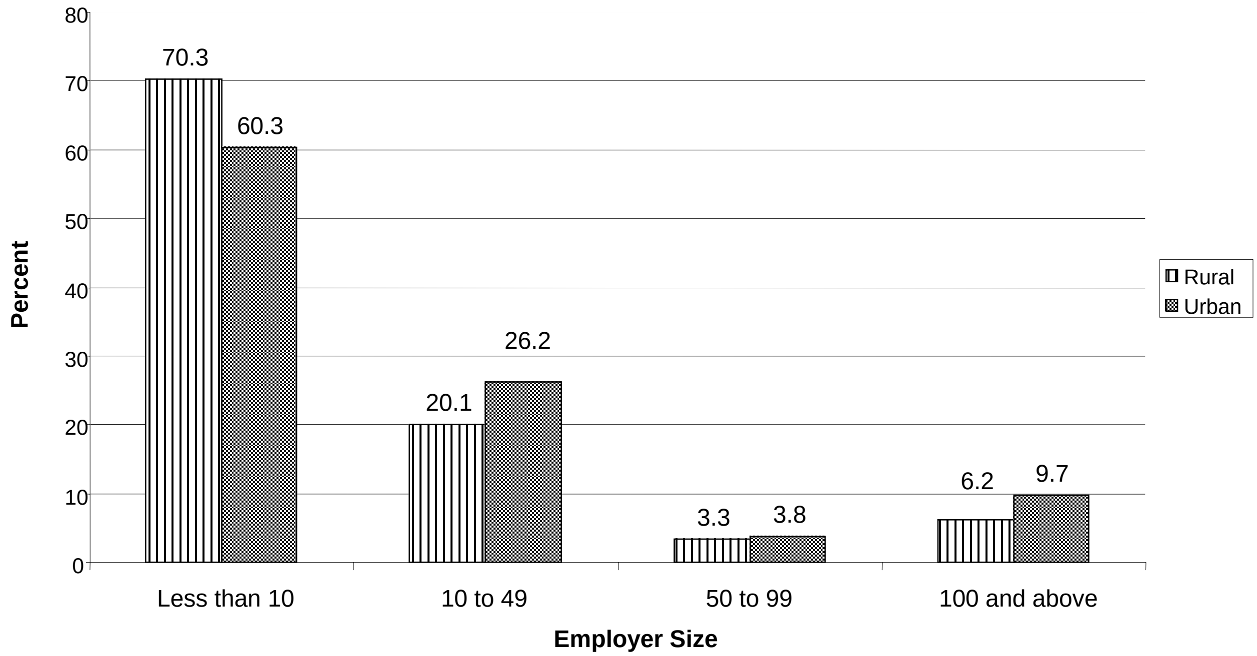
Table 1. Percentage of West Virginia Employees, by Industry

Industry	Paid Employees	Percentage
Mining	19,956	3.6%
Manufacturing	72,454	13.0%
Retail Trade	87,622	15.8%
Services	227,322	40.9%
Agriculture, Forestry and Fishing[2]	1000-2499	0.18%-.45%
Construction	27,540	5.0%
Transportation, Communication, Electric, Gas and Sanitary	51,311	9.2%
Wholesale Trade	21,631	3.9%
Finance and Real Estate	37,853	6.8%

Source: Census Bureau's County Business Patterns 2001 Report

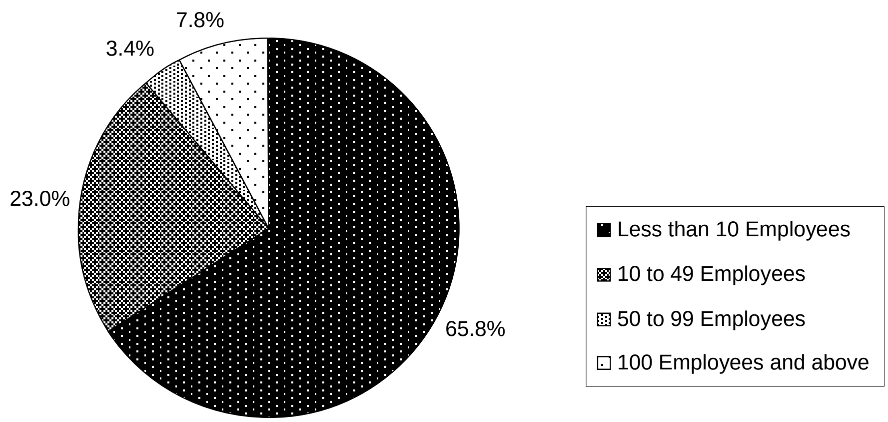
[2] The number and percentage of employees within the Agriculture, Forestry and Fishing category is stated in the form of a range so that the identity of the employer can not be easily identified, thus protecting the industries in which there are only a few businesses operating.

Figure 2. Percentage of Employers Surveyed, by Location



When compared by size, rural areas have higher numbers of small employers with less than 10 employers. Urban areas have more midsized employers and more major employers than rural areas do. Large employers are about equally divided between rural and urban locations.

Figure 3. Number of Employees at All West Virginia Locations



Among the employers surveyed, the majority (66%) are small employers with less than 10 employees, while another 23% are midsized (10 through 49 employees). Only 11% have 50 or more employees.

Although the majority of businesses are small employers with less than 10 employees, only a small percentage of employed adults work in small companies.

Using information provided by the Statistics of US Business, 2000[3], it is estimated that 13.3% of all working West Virginians work for companies employing between one and nine employees, another 8.6% are employed by companies employing between 10 and 19, and 19% work for companies employing between 20 and 99 employees.

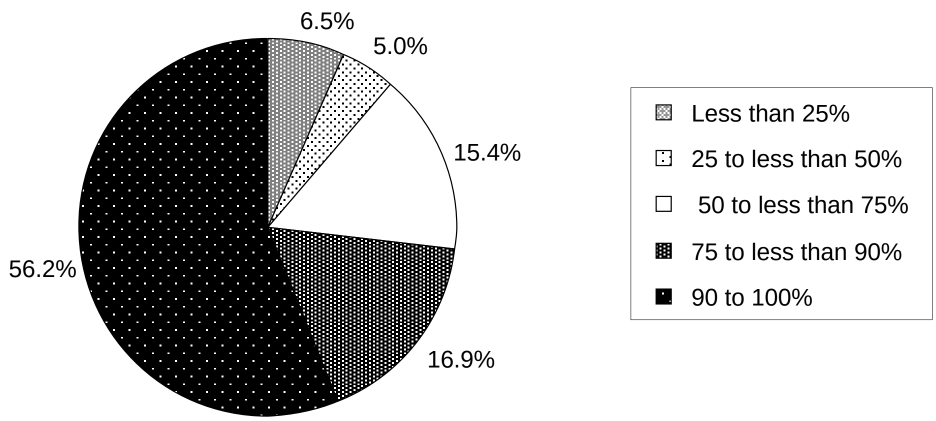
Table 2. WV Employees, by Employer size

Employer Size	Paid Employees	Percentage
Employers with 1 to 4 employees	33,751	6.0%
Employers with 5 to 9 employees	40,809	7.3%
Employers with 10 to 19 employees	48,075	8.6%
Employers with 20 to 99 employees	105,949	19.0%
Employers with 100 to 499 employees	329,587	59.0%
Total Employers	558,171	100%

Source: Statistics of US Business, 2000

[3] The total number of employers within Table 1 is 548,188, in Table 2 the total number of employers is 558,171. The difference between these two figures can be attributed to the fact that they come from two different sources and two different years, 2000 and 2001, respectively.

Figure 4. Percentage of Full-time Employees

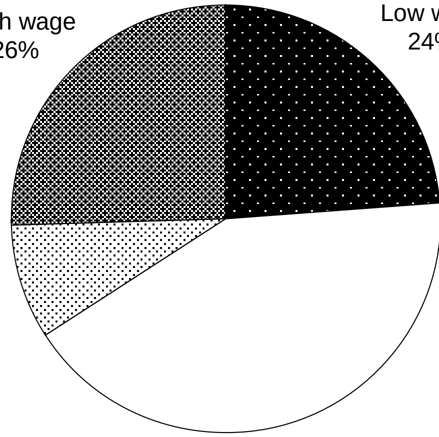


A significant percentage of employers surveyed have employees who work full-time. Of those employers surveyed, 56.2% had a workforce composed of between 90 and 100% full-time workers. Another 17% of employers had a workforce composed of between 75 and 90% full-time workers. Only 11.5% of employers have a workforce composed of less than 50% full-time workers.

At the national level, 30.6% of all workers are employed in part time jobs. 40.9% of all employees work 40 hours, while 28.5% of all employees work more than 40 hours per week.[4]

[4] US Bureau of the Census. *Current Population Survey*. ONLINE. 2003. Census Bureau. Available: http://www.bls.gov/cps/cpsa2002.pdf.

Figure 5. Employee Earnings



The employers surveyed were asked the range of annual salaries earned by the majority of their employees. The largest number of employers (42%) can be classified as moderate low wage firms with the majority of their workers earning between $15,000 and $25,000. The second highest number of employers can be classified as high wage firms (26%) with a majority of employees earning more than $25,000. A similar number (24%) are low wage firms, where a majority or workers earn less that $15,000. The final employer group (8%) has about half of its employees earning between $15,000 and $25,000 and the other half earning more than $25,000.

The following table (Table 3) shows each of the industry categories, broken down into the four wage types. Here, agriculture, forestry and fishing, along with retail trade, are the industries more likely to fall into low and moderate low wage categories. Employers in the finance and real estate industry category are more likely to fall in moderate and high wage categories. The mining industry, unlike any other industry category, falls into the high wage and low wage categories.

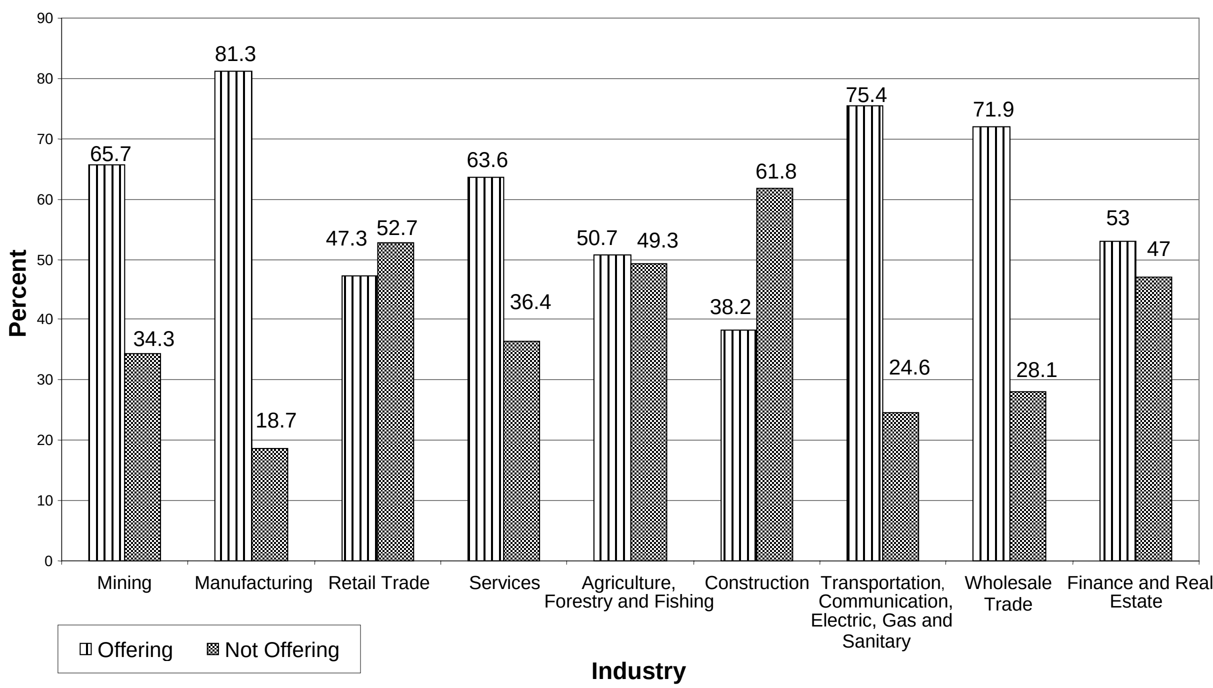
Table 3. Industry Categories, by Wage Type

	Low wage Firm	Moderate-low wage Firm	Moderate wage Firm	High wage Firm	Total
Mining	33.3%	11.1%	0.0%	55.6%	100%
Manufacturing	16.1%	45.2%	6.5%	32.3%	100%
Retail Trade	35.4%	48.8%	7.1%	8.7%	100%
Services	20.6%	37.6%	9.0%	32.8%	100%
Agriculture, Forestry and Fishing	16.7%	83.3%	0.0%	0.0%	100%
Construction	7.7%	48.7%	12.8%	30.8%	100%
Transportation, Communication, Electric, Gas and Sanitary	23.8%	42.9%	4.8%	28.6%	100%
Wholesale Trade	33.3%	36.7%	10.0%	20.0%	100%
Finance and Real Estate	0.0%	16.7%	16.7%	66.7%	100%
Overall	23.8%	42.3%	8.3%	25.5%	100%

How Employers That Offer Health Insurance Differ From Those That Do Not

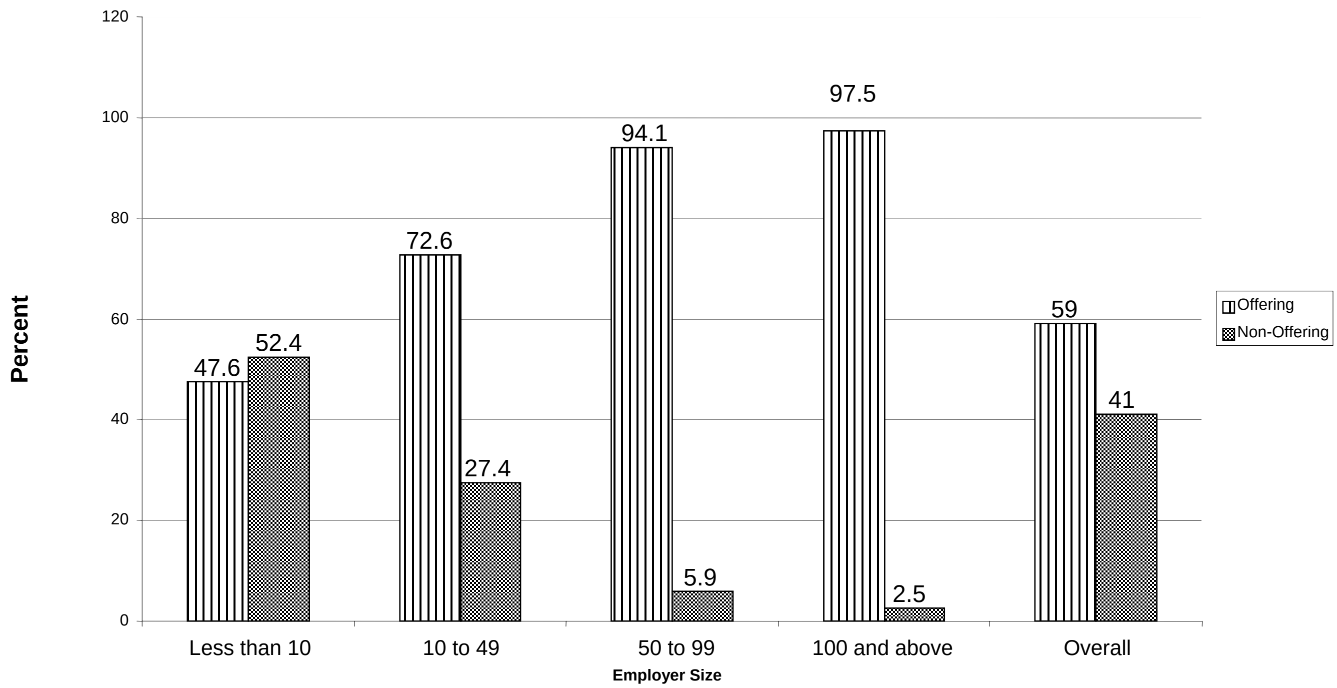
Data analysis indicates that the factors having the biggest effect on an employer's decision for or against offering health insurance (ranked in order of their impact) are: company size, employee earnings and percentage of full-time employees. Whether an employer is for profit or non-profit and years of doing business in West Virginia are not significant factors to distinguish whether employers offer health insurance to their employees (detailed result is shown in Appendix C).

Figure 6. Employers That Do and Do Not Offer Health Insurance, by Industry



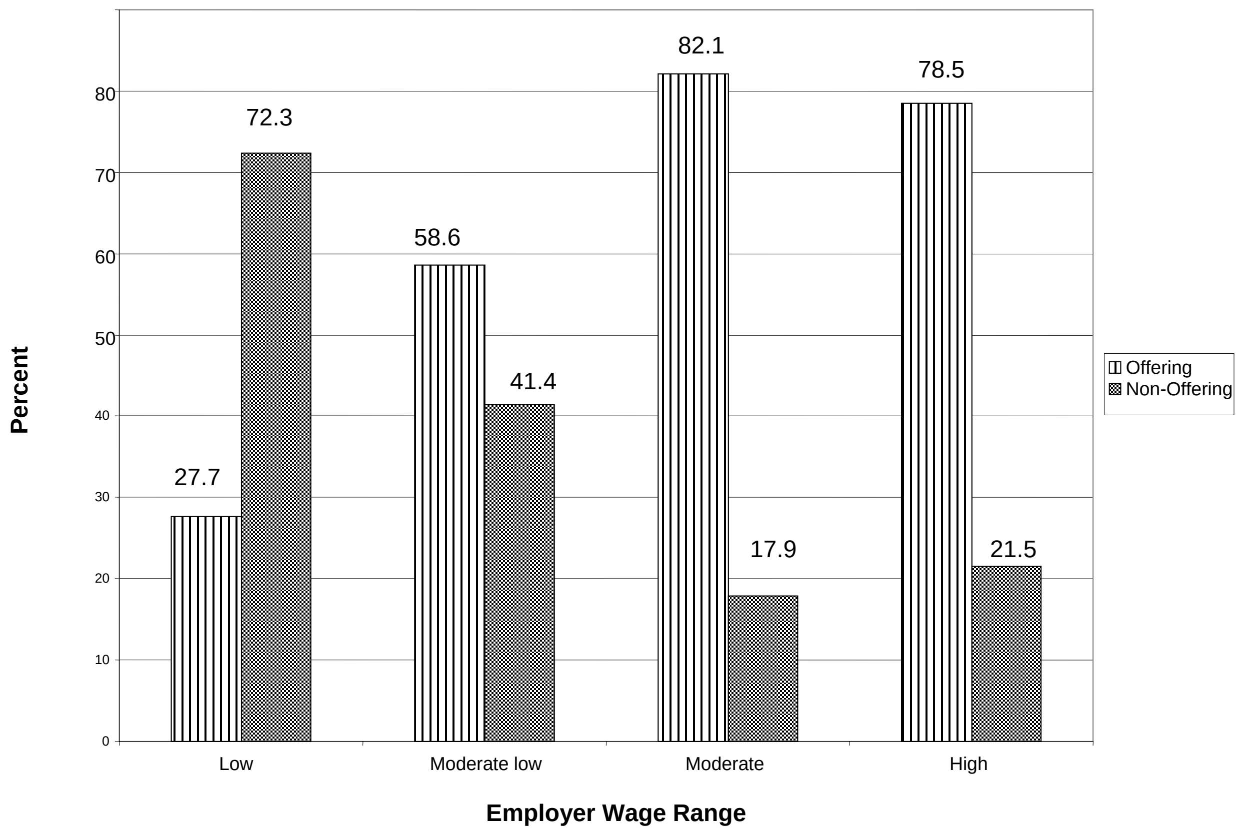
The industry types of employers who are most likely to offer health insurance (more than 50%) are—in descending order—Manufacturing, Transportation et al, Wholesale Trade, Mining, Services, and Finance et al. Construction is the industry with fewest employers offering insurance. Agriculture et al and Retail Trade represent industries with almost an equal number of employers that do offer health insurance (50.7% and 47.3%, respectively) as those that do not (49.3% and 52.7%).

Figure 7. Employers That Do and Do Not Offer Health Insurance, by Size



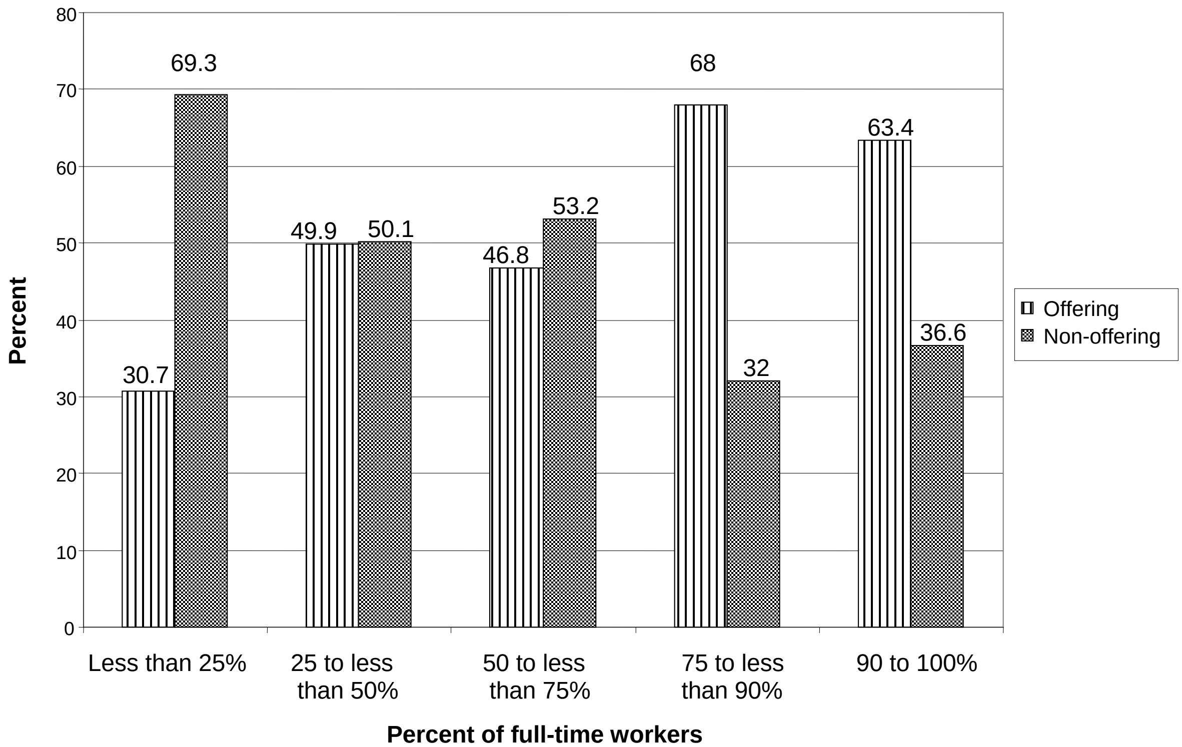
This comparison shows a substantial difference based on the employer's number of workers. Small employers are the only category where more firms (52.4%) do not offer health insurance. For midsize firms, only 27.4% do not offer health insurance, and in large and major firms, nearly all employers (94.1%) and (97.5%) respectively offer health insurance.

Figure 8. Employers That Do and Do Not Offer Health Insurance, by Earnings



Employers whose workers earn low annual wages are almost three times as likely not to offer health insurance. At the other end of the wage scale, 78.5% of the firms that pay workers over $25,000 offer health insurance. Moderate wage employers have the highest number of firms that offer health insurance at 82.1%. Nearly 59% of moderate low wage firms provide health insurance for their employees.

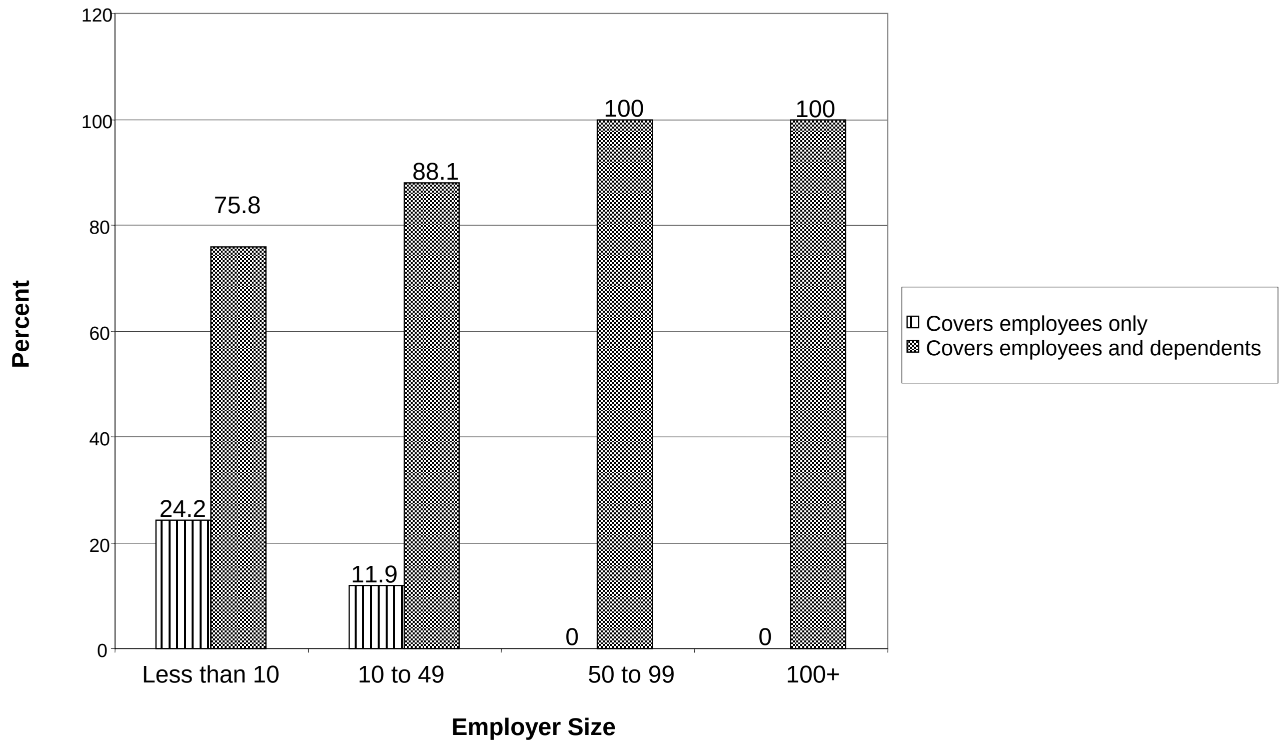
Figure 9. Employers that Do and Do Not Offer Health Insurance, by Full-time Workers



Among employers surveyed, those with the lowest percentage of full-time workers (less than 25%) were least likely to offer health insurance: 30.7% do offer, while 69.3% do not. On the other hand, employers with 75% or more full-time workers were substantially more likely to offer health insurance. Perhaps the most notable finding is that nearly a third of these latter firms do not.

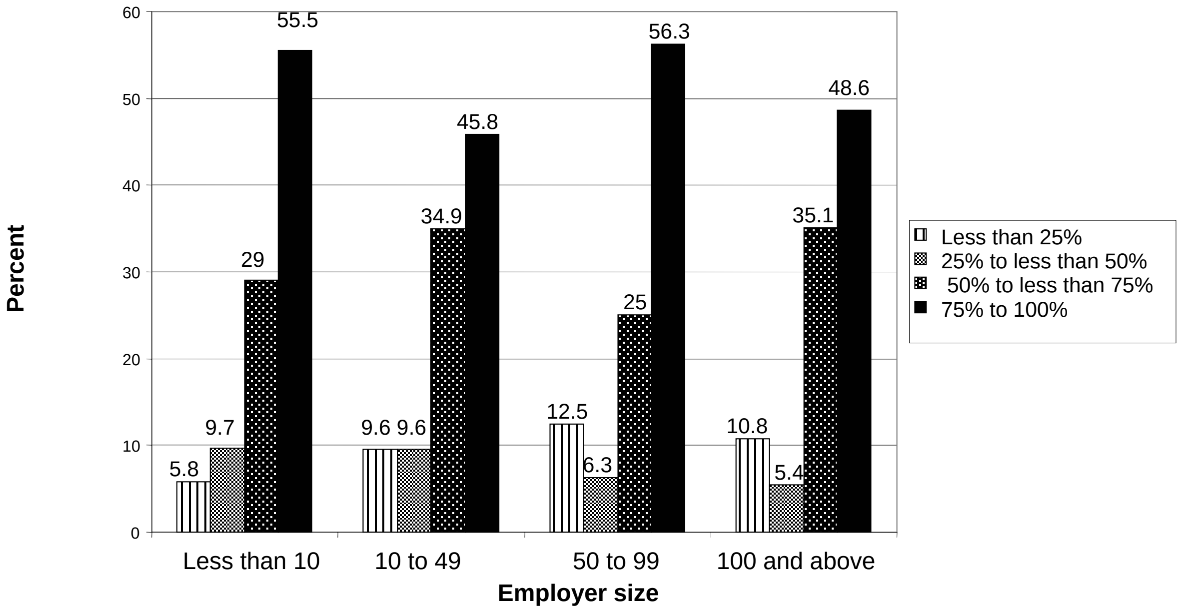
Employers That Offer Insurance

Figure 10. Employers Offering Employee-only and Dependent Coverage



100% of large and major employers offer both employee and dependent coverage. Among companies with fewer workers however, 24.2% of small employers (less than 10 employees) and 11.9% of mid-sized employers (10 to 49 employees) do not offer dependent coverage.

Figure 11. Employees' Participation in Company Health Insurance

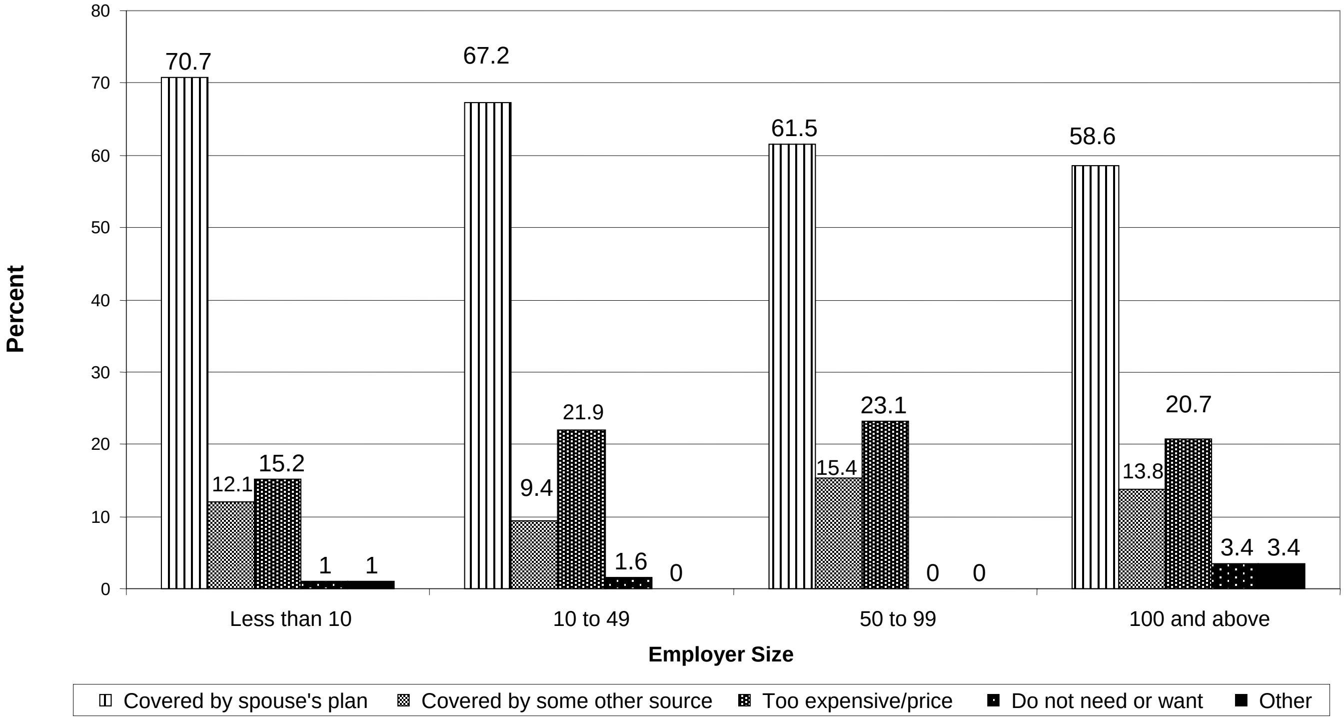


The largest number of employees participating in their company's health insurance (at a rate of 50% or higher) are those in small firms (less than 10 employees), followed closely by those in major firms (100 employees or more).

However, large firms (those with 50 to 99 employees) have the highest rate of employees participating at 75% and above.

Altogether, in more than 80% of the businesses offering insurance, over 50% of their employees participate in company health insurance.

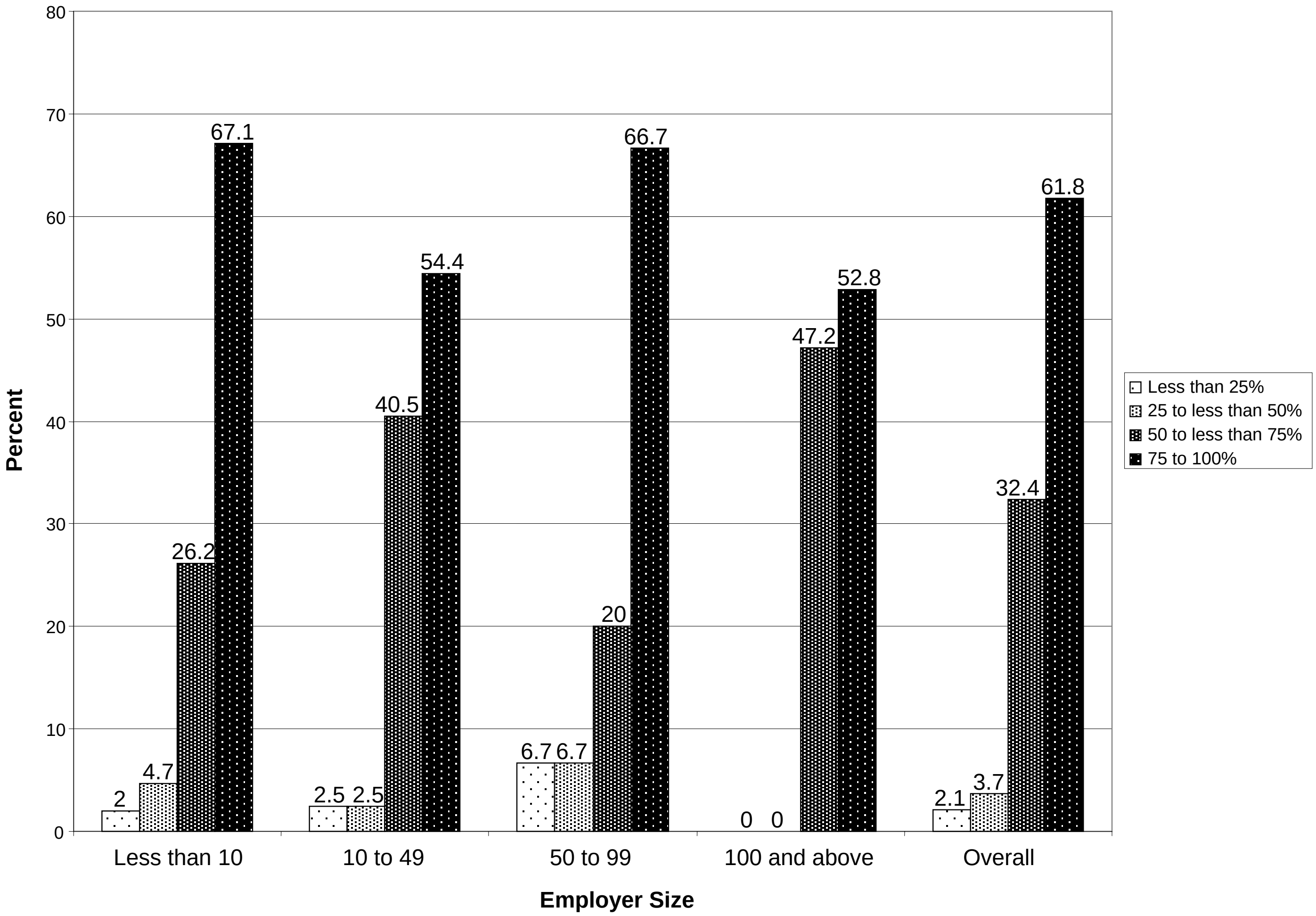
Figure 12. Employees' Reasons for Not Participating in Employer-Offered Health Insurance



Across all employers, no matter what their size, the major reason the employers believe that employees do not participate in their company's health insurance program is because of access to a spouse's coverage (67.3%). This ranges from a high of 70.7% among small employers to a low of 58.6% among major employers.

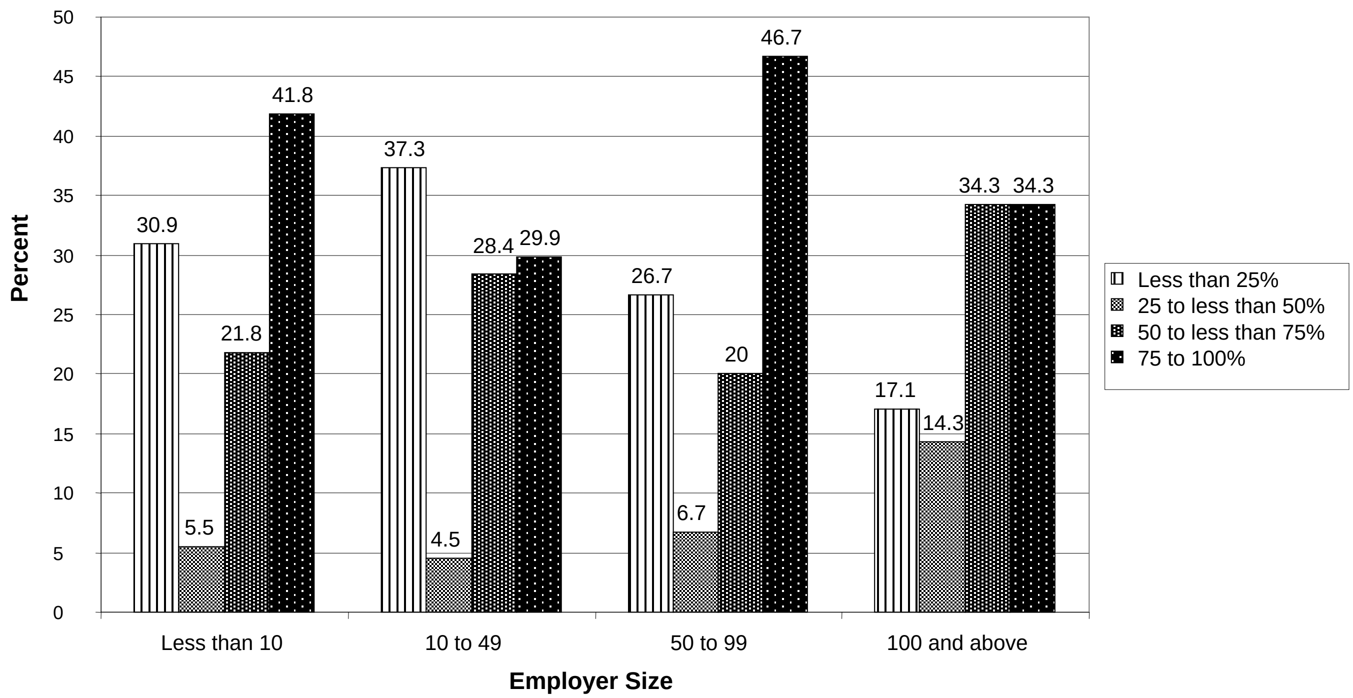
The second most significant issue is cost which was given by 18.5% of all employers. This is more of an issue with large employers' workers, cited by 23.1%. Across the board, only 1.5% of all employers stated that they believed that their employees do not participate in the company's health insurance program because they "Do not need or want" coverage.

Figure 13. Percent of Employee-Only Premium Paid by Company



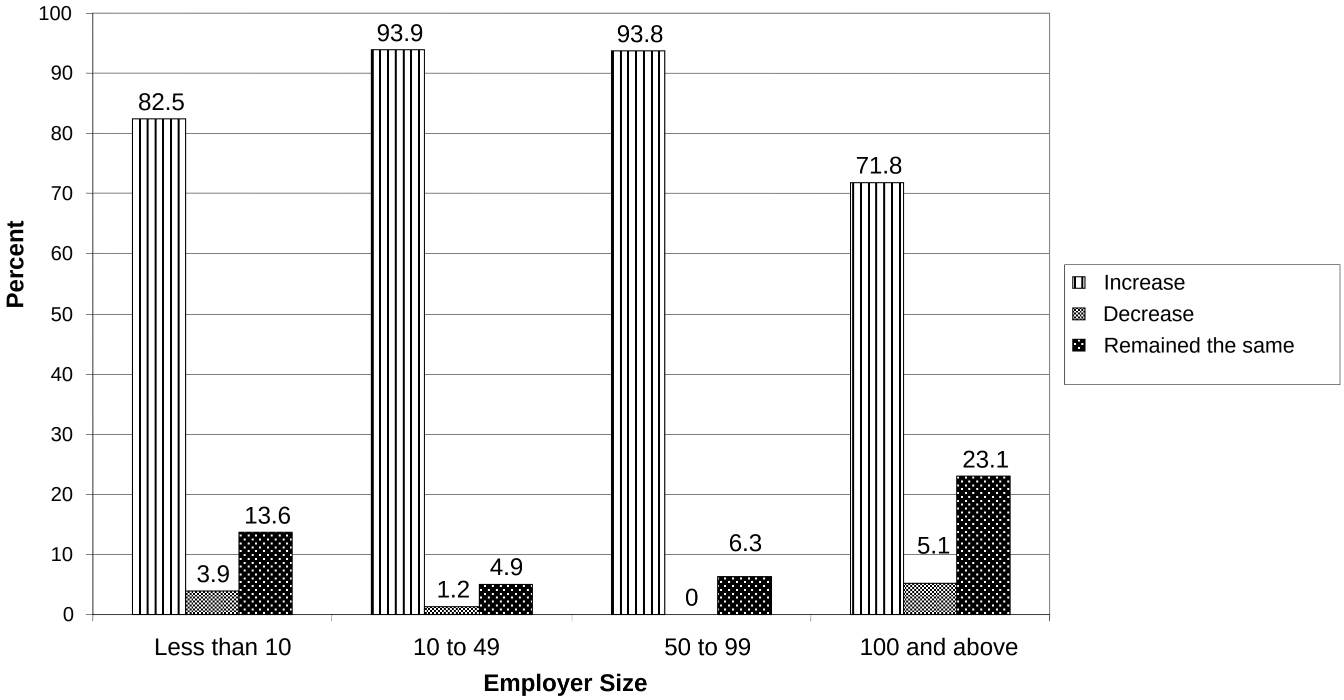
A substantial majority of all employers pay more than half of the employee-only health insurance premiums for their workers. In this category, only major companies pay 50% or more of the premiums for all of their employees. Large employers have the highest rate of paying 75% of the premium or more (66.7%). On the low end, only 5.8% of all employers pay less than half of employee-only premiums for their workers.

Figure 14. Percentage of Dependent Premiums Paid by Company



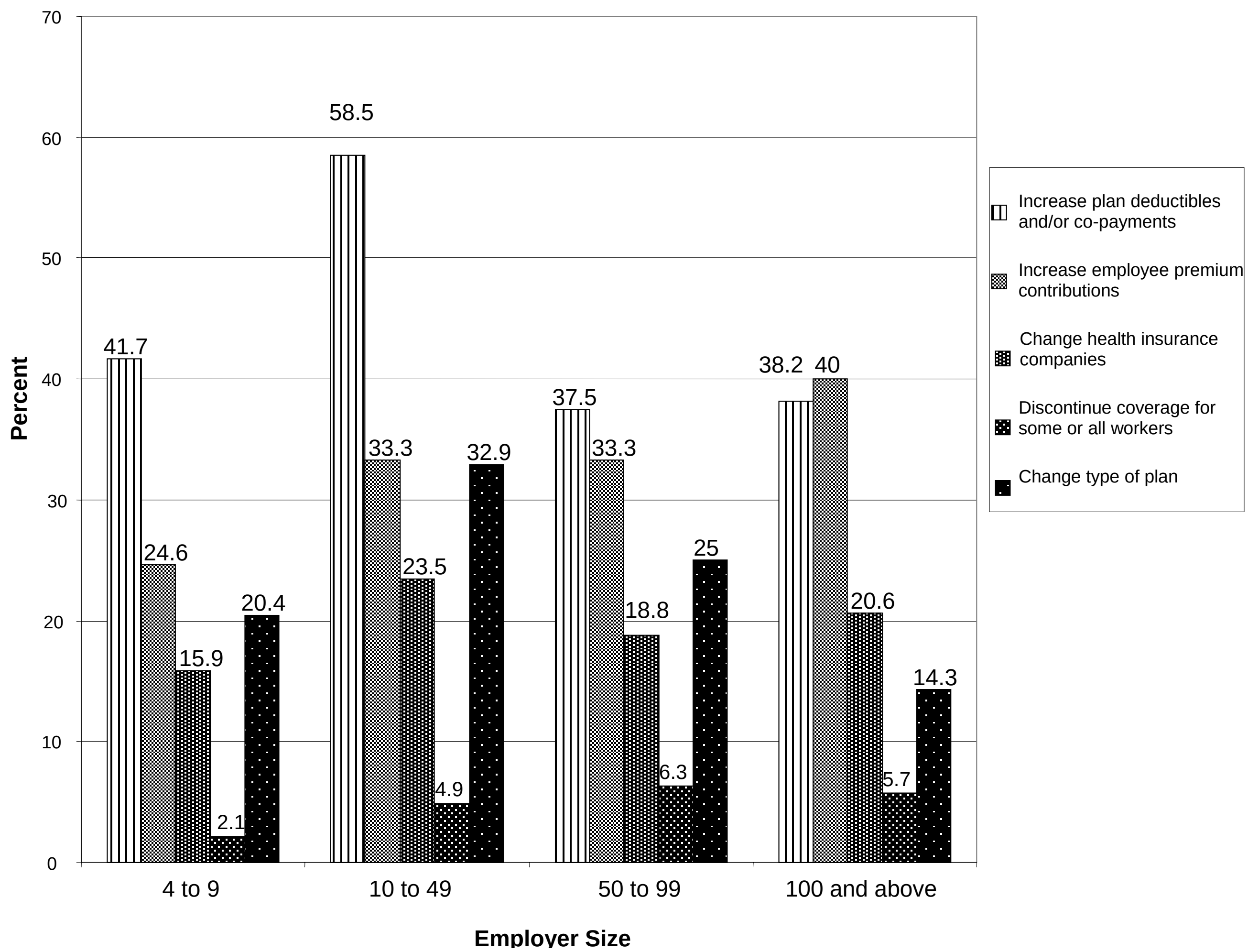
All employers pay a smaller amount of dependent premiums than they do for employees. Nevertheless, more than half of all employers paid 50% or more to offset dependent premium costs. Midsize firms (10 through 49 employees) have the highest rate of paying less than 25% of dependent premium costs and, conversely, have the least employers (58.3%) paying more that 50% of those costs.

Figure 15. Employers' Changes in Annual Premiums Costs



Major employers show the most stable experience in premium cost changes with 23.1% remaining the same as last year and 5.1% decreasing in cost. Still, a significant 71.8% of these firms have experienced premium increases. Within the three categories of employers with less than 100 workers, 82.5% to 93.9% have experienced increases in their premium costs. The second most stable experience is among the group of small employers, with 13.6% of their premiums remaining the same as last year and nearly 4% declining.

Figure 16. Employers Actions to Control Costs

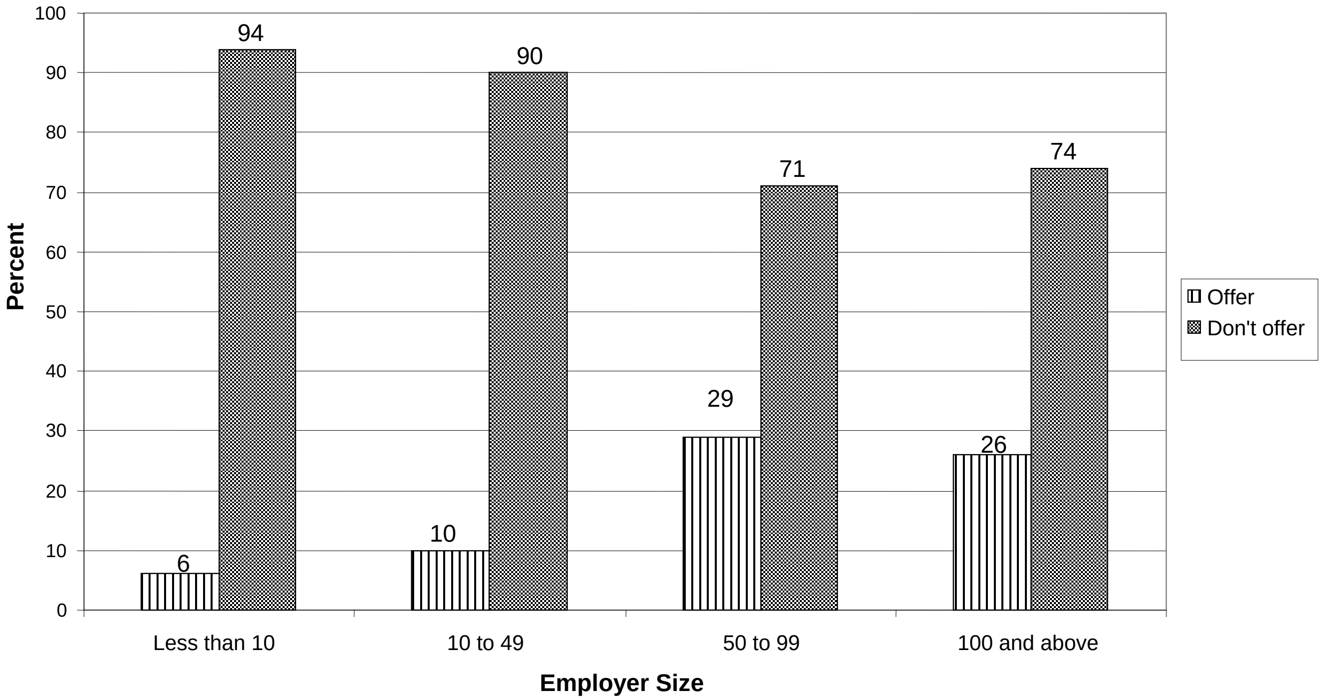


Employers who had experienced annual premium costs increases were asked about what actions they had taken to keep their health insurance costs under control.[5] A specified list of possible actions was reviewed.

The most common actions taken to control costs by employers are to increase plan deductibles and/or co-payments and to increase employee premium contributions. The percentage of employers discontinuing coverage ranged from 2.1% for employers with between four and nine employees to 6.3% for employers employing between 50 and 99 workers.

[5] It is worth noting that the figures within each employer size do not cumulate to 100% due to the fact that some employers took more than one action to keep health insurance costs under control.

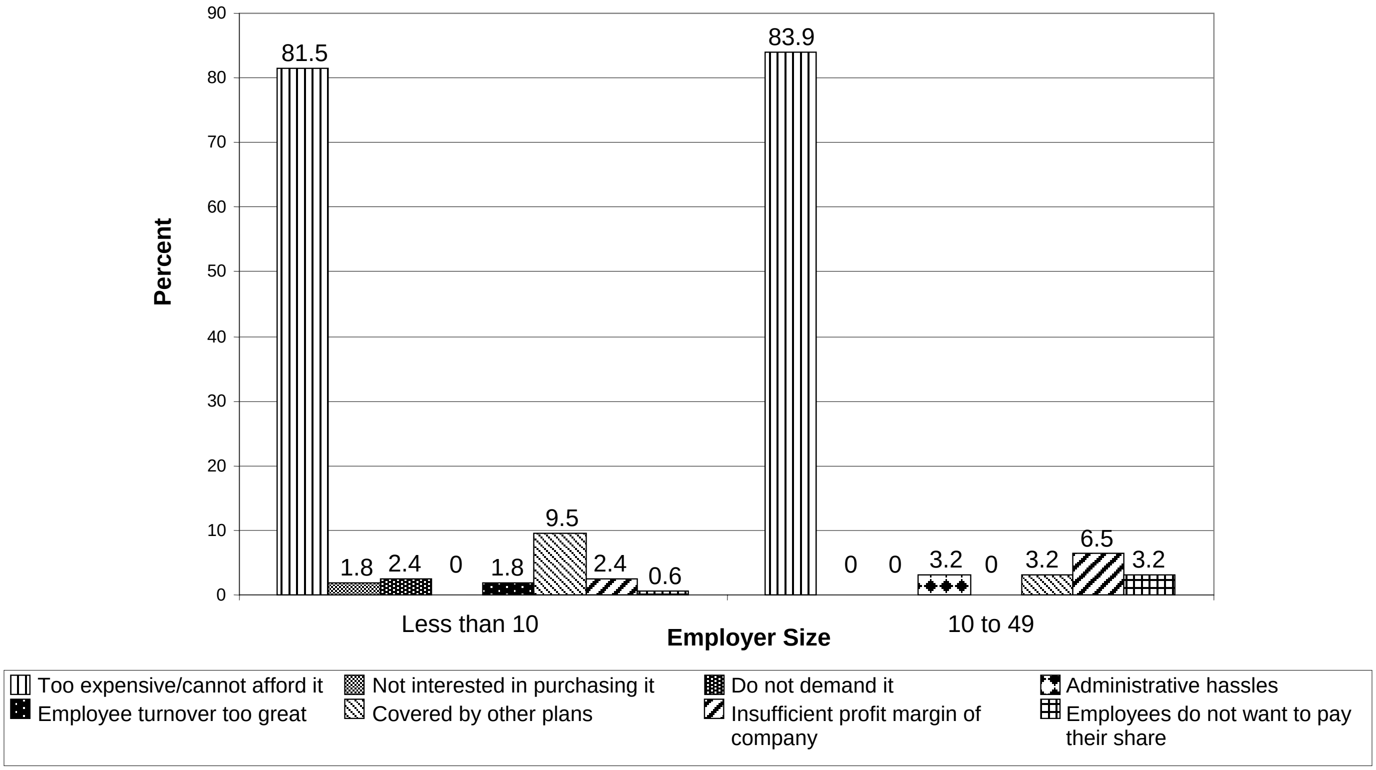
Figure 17. Employers Providing Health Insurance That Covers Retirees



Few small or midsize employers offer health insurance to retirees, even though they offer it to employees. Large employers appear to offer retiree insurance most frequently (29%), and major employers at a slightly lesser rate (26%).

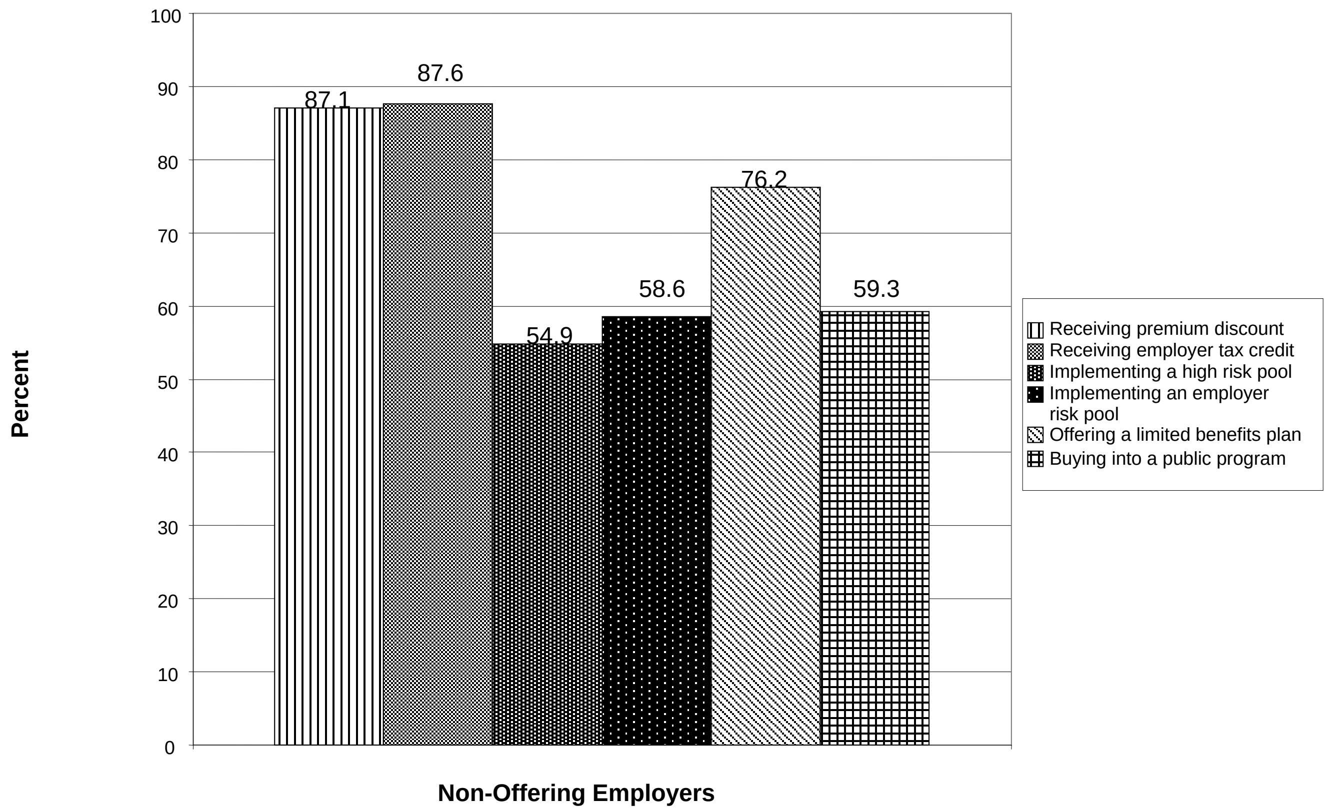
Some Final Employer Issues and Observations

Figure 18. Reasons Employers Give for Not Providing Health Insurance



Over 80% of employers that don't offer health insurance give cost as the primary reason. The second most cited reason is that employees are covered under other insurance.

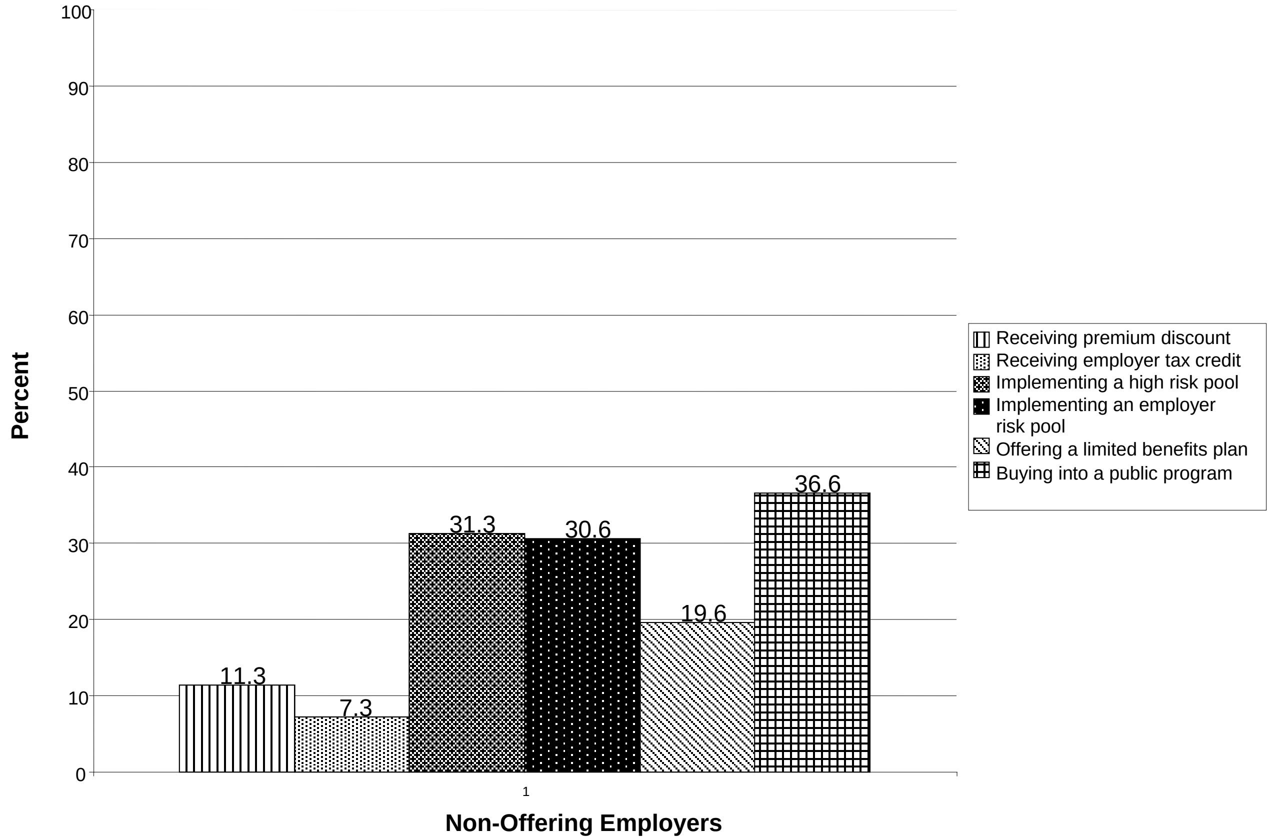
Figure 19. Options Ranked by Non-Offering Employers as Appealing



All employers were asked to give their opinions on different models of health insurance expansion.

Of the non-offering employers surveyed, 87.6% found “receiving employer tax credits” appealing. The second most popular model amongst non-offering employers was “receiving premium discounts” at 87.1%, followed by “offering a limited benefits plan” at 76.2%.

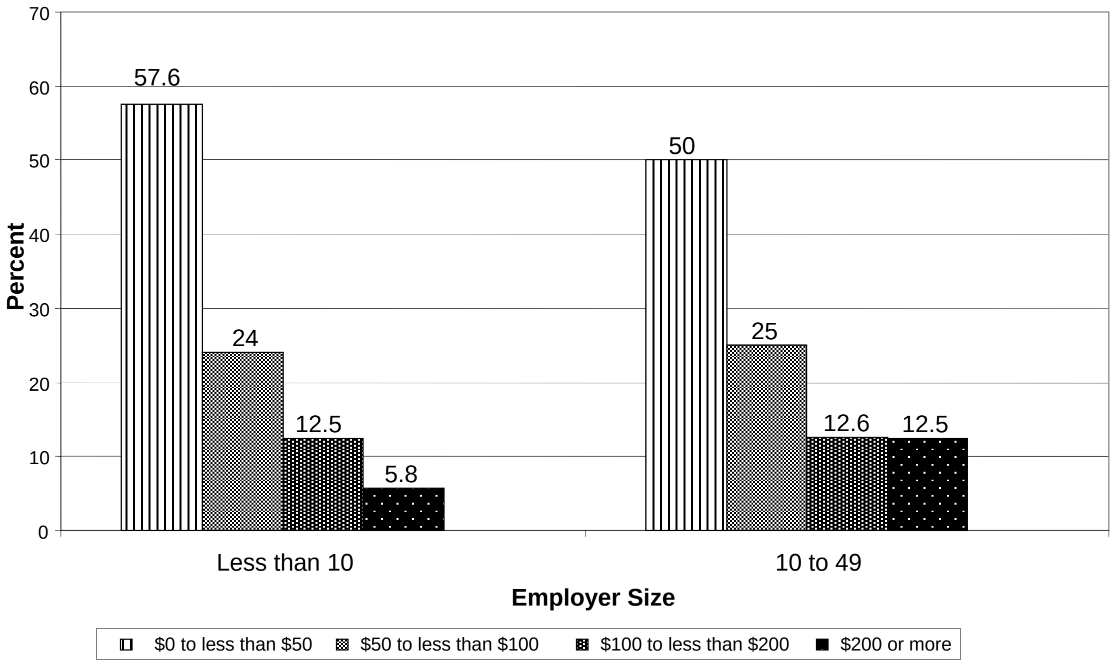
Figure 20. Options Ranked by Employers as Unappealing



Employers were then asked to identify which of the different models of health insurance expansion they found unappealing.

The model ranked most unappealing by non-offering employers was "buying into a public program" at 36.3%. "Implementing a high risk pool," was ranked by non-offering employers as the second most unappealing model (31.3%), followed by "implementing an employer risk pool" (30.6%).

Figure 21. Amount Non-Offering Employers Would Be Willing to Pay for Health Insurance



50% or more of small and midsize firms are willing to contribute less than $50.00 to the cost of their employees' premiums. Nevertheless, there are 18.3% of small employers and 25.1% of midsize employers who are willing to contribute $100.00 or more towards the cost of employee coverage.

Consequences of Not Offering Health Insurance to Employees

Employers who don't provide health care insurance were asked a series of questions about their uninsured employees' experiences related to health care.

The responses were:

30% say that one or more employees were unable to get needed care;
38.8% say that one or more employees faced large out of pocket costs;
44.1% say that one or more employees left for a job that offered insurance;
4.5% say that one or more employees were bankrupted by medical costs.

Importance of Having Health Insurance

85.8% of employers who offer health insurance believe it is very important that employees and their families have health coverage, compared to 59.7% of employers that don't offer.

When asked about health insurance for all West Virginians, 73% of employers providing health insurance say it is very important. Similarly, 69.8% of those that do not offer insurance say it is very important.

Employers' Agreement with the Following State Actions

Employers were asked if they agreed with the policy of providing State funds to help employers of low wage workers afford coverage. 77.7% of offering employers and 79.6% of non-offering employers agree.

Asked if employers should be required by law to provide health insurance for their workers, 66.3% of offering employers and 92.2% of non-offering employers disagreed.

Asked if employees should be required to purchase coverage for themselves and their families, 75.1% of offering employers and 83.7% of non-offering employers disagreed.

Findings Summary

The WV State Planning Grant has two primary objectives. The first objective focuses on maintaining the current number of West Virginians covered by health insurance, be that public programs or private insurance. The second objective is focused on reducing the number of uninsured in the State by half within the next five years. The purpose of the West Virginia Employer Survey is to provide information regarding the concerns and issues that must be addressed to enable offering employers to continue providing coverage and non-offering employers to begin providing health insurance to their employees.

Of the information gathered regarding the concerns and experiences of the State's private sector employers, the following represents that which is most relevant to achieving the objectives outlined above:

- Nearly 72% of major employers (those with 100 or more employees) have experienced premium increases. Within the three categories of employers with less than 100 employees, 82.5% to 93.9% have experienced increases in their premium costs.
- Of those companies offering health insurance coverage, the most frequently taken action for controlling health insurance costs was to increase plan deductibles and/or co-payments. The second most common action involved increasing employee premium contributions. The percentage of employers discontinuing coverage ranged from a low of 2.1% for employers with between four and nine employees to a high of 6.3% for employers employing between 50 and 99 workers.
- A substantial number of employers (81.9%) that don't offer health insurance give cost as the primary reason. The second most cited reason is that employees are covered under other insurance.
- Asked to identify the most appealing health insurance expansion models, 87.6 % of non-offering employers found employer tax credits attractive, followed by premium discounts (87.1%) and offering a limited benefits plan (76.2%).
- The models least favored by non-offering employers were buying into a public program at 36.3%, implementing a high risk pool (31.3%) and implementing an employer risk pool (30.6%).
- Fifty percent or more of small and midsize firms are not willing to contribute more than $50.00 towards the cost of their employees' premiums. 18.3% of small employers and 25.1% of midsize businesses are willing to contribute $100.00 or more.
- Thirty percent of non-offering employers stated that one or more of their employees were not able to get needed care as a consequence of not having health insurance. 44.1% had one or more employees leave their company to take a position that offered insurance coverage.
- Roughly 70% of non-offering employers feel that providing all West Virginians with health insurance is very important. Almost 60% believe that it is very important that their employees and families have health coverage.
- Approximately 80% of non-offering employers support the use of State funds to help employers of low-wage workers afford coverage.

- About 93% of non-offering employers disagreed with the idea of the State requiring employers to provide their workers health insurance; 83.7% disagreed with the idea of employees being required to purchase it for themselves and their families.

Appendix A
Study Methods

Sample Design

The universe for this study is composed of all West Virginia businesses with 4 or more employees. Businesses with less than 4 employees—which constitute approximately 50% of all firms, but less than 6% of the total working adult population in West Virginia—were not included, as there was concern that they might overwhelm the sample and result in misleading findings. We also needed to consider disproportionate sample stratification to provide sufficient data to allow for statistical analysis of sub-groups of businesses. Since a large majority of businesses are very small (<10 employees), a simple random, or proportionate stratification, would yield an insufficient number of larger businesses to produce any projectable statistics to that segment of the universe. Therefore, we decided on a disproportionate selection by employee size (i.e., a design that over-represented larger businesses). Further, we selected based on the total US employee count. We also attempted a fairly proportionate regional and industry (SIC) representation.

Considering the stratification scenario presented above, i.e., requirements for specified employer sizes, industry (SIC) and regional specifications, we used the Dun and Bradstreet database for the sampling frame. The database was examined for duplication, missing information, etc. and a clean file was created. The file was re-examined to insure the excluded organizations were eliminated.

Sample Size

Critical to the usefulness of the data is a sample design that minimizes the design effect associated with significant intentional or unintentional disproportionally (requiring extensive weighting), while providing sufficient cases in each subgroup of interest to allow at least minimal analysis for that subgroup. In brief, a balance between these two competing goals was the main focus of our recommended design. Because the number of smaller employers are far outnumber the larger ones, larger employers were over sampled to increase their representation in the survey. We proportionality selected industry (SIC) and regions and "attempted" to conduct proportional numbers of surveys.

Per the RFP, the sample size was 500 completed telephone interviews. The sample was selected using the following procedure:

Total Number of Employees	***Ratio***	***Interviews***
4 – 9	45 percent	225
10 – 19	20 percent	100
20 – 49	15 percent	75
50 – 99	10 percent	50
100+	10 percent	50
Total	**100 percent**	**500**

Employee size included all locations of companies who have employees in West Virginia.

The Sample was drawn by employee size. Within employee size, the sample was drawn proportionately by region and then by industry.

Regions (No quotas)	Northern Panhandle
	Eastern Panhandle
	Charleston/Huntington
	Southern
Industry (No Quota)	Service, Retail, Manufacturing, Construction, and all Others

Weighting

Given the disproportionate sampling and percentage of interviews conducted in the five (5) employee size strata, data are weighted to adjust the survey data to the distribution of employers operating in West Virginia (by total company size) as documented in the Dun and Bradstreet database.

Data Collection

The Indiana, Pennsylvania phone center served as the interviewing site for this project. Data were collected over a period of 4 weeks, starting in February 2003. Upon initial contact with a human resource specialist at each business an attempt was made to complete the full interview. If the respondent was unavailable an effort was made to schedule specified callback. At least 10 percent of the interviews were monitored by a supervisor. Monitor conferences were held with each interviewer in order to provide feedback on both interviewing techniques and questionnaire administration. At the end of each interviewing shift a supervisory report was completed and sent to the project director. The report was used to keep a daily record of study progress and to document any problems. All problems were recorded on problem sheets and corrections, if necessary, were made to the proper respondent's data record.

Interviewer Training and Preparation

All interviewers attend TNSI's standard orientation and training program upon hiring. Each interviewer, monitor, and supervisor assigned to this project attended a project training session that covered the following: the questionnaire, proper procedures, quality interviewing techniques, and areas where problems might occur. The project training session, conducted by the project director, consisted of three parts: project overview, key question review, and practice interviews. Once the project director and supervisory staff were confident that each interviewer was fully prepared they were permitted to conduct live interviews.

Sample Control

A systematic method to monitor sample was employed throughout the study in an attempt to maximize response rate and reduce non-response bias. In an effort to reduce non-response bias, every sample piece received a minimum of an original call and up to 5 call backs over six separate interviewing sessions. These attempts varied as to the day of the week (Monday-Friday) and the time of day the call was placed. To assure the unbiased contact of sample pieces, TNSI utilized controlled replicate sampling based on the strict application of accepted sampling theory and procedures. In this manner, sampling personnel randomly subdivided the pool of sample pieces in each stratum into mini-samples called replicates. These replicates consisted of independent representative probability samples of the universe in that cell. As data collection progressed, the number of replicates released got smaller. The release of additional replicates only occurred after a substantial number of cases had final dispositions and/or were call-rule exhausted, thereby lowering the number of cases without final contact dispositions at the conclusion of the study. This procedure ensured that only the number of sample pieces required to attain the desired number of interviews for each cell were released.

Appendix B
Industry Categories and Definitions

Standard Industrial Classification (SIC) System[6]

Division A: ***Agriculture, Forestry and Fishing***

This division includes establishments primarily engaged in agricultural production, forestry, commercial fishing, hunting and trapping, and related services.

The classification of agricultural production covers establishments (e.g., farms, ranches, dairies, greenhouses, nurseries, orchards, hatcheries) primarily engaged in the production of crops, plants, vines, or trees (excluding forestry operations); and the keeping, grazing, or feeding of livestock for the sale of livestock or livestock products (including serums), for livestock increase, or for value increase. Livestock as used here includes cattle, sheep, goats, hogs, and poultry. Also included are animal specialties, such as horses, rabbits, bees, pets, fur-bearing animals in captivity, and fish in captivity. Agricultural production also includes establishments primarily engaged in the operation of sod farms, cranberry bogs, and poultry hatcheries; in the production of mushrooms, bulbs, flower seeds, and vegetable seeds; and in the growing of hydroponic crops.

Farms are the establishment units generally utilized for the purpose of industrial classification of agricultural production. A farm may consist of a single tract of land or a number of separate tracts which may be held under different tenures. For example, one tract may be owned by the farm operator and another rented. It may be operated by the operator alone or with the assistance of members of the household or hired employees, or it may be operated by a partnership, corporation, or other type of organization. When a landowner has one or more tenants, renters, croppers, or managers, the land operated by each is considered a farm.

The classification of agricultural services includes establishments primarily engaged in supplying soil preparation services, crop services, landscape and horticultural services, veterinary and other animal services, and farm labor and management services.

The classification of forestry covers establishments primarily engaged in the operation of timber tracts, tree farms, or forest nurseries; in the gathering of forest products; or in performing forestry services. Logging establishments are classified in Manufacturing, Industry 2411.

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[6] The information on the Standard Industrial Classification System presented above was obtained from the US Department of Labor, Occupational Safety and Health Administration's website. This information can be accessed electronically at http://www.osha.gov/cgi-bin/sic/sicser5.

The classification of fishing and hunting and trapping covers establishments primarily engaged in commercial fishing (including shellfish and marine products); in operating fish hatcheries and fish and game preserves; and in commercial hunting and trapping.

Establishments which produce agricultural commodities and sell them directly to the general public for personal or household consumption are classified in Major Groups 01 and 02.

Division B: *Mining*

This division includes all establishments primarily engaged in mining. The term mining is used in the broad sense to include the extraction of minerals occurring naturally: solids, such as coal and ores; liquids, such as crude petroleum; and gases such as natural gas. The term mining is also used in the broad sense to include quarrying, well operations, milling (e.g., crushing, screening, washing, flotation), and other preparation customarily done at the mine site, or as a part of mining activity.

Exploration and development of mineral properties are included. Services performed on a contract or fee basis in the development or operation of mineral properties are classified separately but within this division. Establishments which have complete responsibility for operating mines, quarries, or oil and gas wells for others on a contract or fee basis are classified according to the product mined rather than as mineral services.

Mining operations are classified, by industry, on the basis of the principal mineral produced, or, if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The mining of culm banks, ore dumps, and tailing piles is classified as mining according to the principal mineral product derived.

The purification and distribution of water is classified in Transportation and Public Utilities, Industry 4941, and the bottling and distribution of natural spring and mineral waters is classified in Wholesale Trade, Industry 5149.

Crushing, grinding, or otherwise preparing clay, ceramic, and refractory minerals; barite, and miscellaneous nonmetallic minerals, except fuels, not in conjunction with mining or quarrying operations, are classified in Manufacturing, Industry 3295. Dressing of stone or slabs is classified in Manufacturing, Industry 3281, whether or not mining is done at the same establishment.

Division C: *Construction*

This division includes establishments primarily engaged in construction. The term construction includes new work, additions, alterations, reconstruction, installations, and repairs. Construction activities are generally administered or managed from a relatively fixed place of business, but the actual construction work is performed at one or more different sites. If a company has more than one relatively fixed place of business from which it undertakes or manages construction activities and for which separate data on the number of employees, payroll, receipts, and other establishment-type records are maintained, each such place of business is considered a separate construction establishment.

Three broad types of construction activity are covered: (1) building construction by general contractors or by operative builders; (2) heavy construction other than building by general contractors and special trade contractors; and (3) construction activity by other special trade contractors. Special trade contractors are primarily engaged in specialized construction activities, such as plumbing, painting, and electrical work, and work for general contractors under subcontract or directly for property owners. General contractors usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project that require special skills or equipment. General contractors thus may or may not have construction workers on their payroll.

Building construction general contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building construction projects. Operative builders who build on their own account for resale are also included in this division. However, investment builders who build structures on their own account for rental are classified in Real Estate, Major Group 65, but separate establishments primarily engaged in construction for the investment builder are classified in this division.

General contractors and special trade contractors for heavy construction other than building are primarily engaged in the construction of highways; pipelines, communications and power lines, and sewer and water mains; and other heavy construction projects. Special trade contractors are classified in heavy construction other than building if they are primarily engaged in activities such as grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching; cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.

Other special trade contractors undertake activities of a type that are either specialized to building construction or may be undertaken for building or nonbuilding projects. These activities include painting (including bridge painting and traffic lane painting) and electrical work (including work on bridges, power lines and power plants).

Establishments primarily engaged in managing construction projects for others on a contract or fee basis, but assuming no responsibility for completion of the construction project, are classified in Services, Industry 8741. Establishments primarily engaged in renting construction equipment, with or without an operator, are classified in Services, Industry Group 735.

Force account construction is construction work performed by an establishment primarily engaged in some business other than construction, for its own account and use, and by employees of the establishment. This activity is not included in this division, but is classified according to the primary activity which is or will be performed in the establishment. However, construction work performed as the primary activity of a separate establishment of an enterprise for the enterprise's own account is included in this division.

The installation of prefabricated building equipment and materials by general and special trade contractors is classified in this division. Similar installation work performed as a service incidental to sale by employees of an establishment manufacturing or selling prefabricated equipment and materials is classified according to the primary activity in the Manufacturing or Trade Divisions.

Establishments primarily engaged in the distribution and construction or installation of equipment often present classification problems. Since value added is not available for distinguishing the relative importance of sales versus installation or construction activities, payroll or employment may be used as measures yielding approximately the same results.

On this basis, separate establishments primarily engaged in the sale and installation of the following illustrative types of structures or integral parts of structures generally site assembled, are classified in construction rather than in trade:

a. Steel work on bridges or buildings; b. Elevators and escalators; c. Sprinkler systems; d. Central air-conditioning and heating equipment; e. Communications equipment; and f. Insulation materials.

On the other hand, establishments primarily engaged in the sale and installation of the following illustrative types of preassembled equipment are classified in trade rather than in construction:

a. Major household appliances, such as refrigerators, dishwashers, clothes washers and dryers, stoves and ranges; and b. Partitions for banks, stores, and restaurants.

Division D: *Manufacturing*

The manufacturing division includes establishments engaged in the mechanical or chemical transformation of materials or substances into new products. These establishments are usually described as plants, factories, or mills and characteristically use power driven machines and materials handling equipment. Establishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor other fixed improvement. Also included is the blending of materials, such as lubricating oils, plastics resins, or liquors.

The materials processed by manufacturing establishments include products of agriculture, forestry, fishing, mining, and quarrying as well as products of other manufacturing establishments. The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become a raw material for an establishment engaged in further manufacturing. For example, the product of the copper smelter is the raw material used in electrolytic refineries; refined copper is the raw material used by copper wire mills; and copper wire is the raw material used by certain electrical equipment manufacturers.

The materials used by manufacturing establishments may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another which is under the same ownership. Manufacturing production is usually carried on for the wholesale market, for interplant transfer, or to order for industrial users, rather than for direct sale to the domestic consumer.

There are numerous borderline cases between manufacturing and other divisions of the classification system. Specific instances will be found in the descriptions of the individual industries. The following activities, although not always considered as manufacturing, are so classified:

Milk bottling and pasteurizing;

Fresh fish packaging (oyster shucking, fish filleting);

Apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations) as well as contracting on materials owned by others;

Publishing;

Ready-mixed concrete production;

Leather converting;

Logging;

Wood preserving;

Various service industries to the manufacturing trade, such as typesetting, engraving, plate printing, and preparing electrotyping and stereotype plates, but not blueprinting or photocopying services;

Electroplating, plating, metal heat treating, and polishing for the trade;

Lapidary work for the trade;

Fabricating of signs and advertising displays.

There are also some manufacturing-type activities performed by establishments which are primarily engaged in activities covered by other divisions, and are, thus, not classified as manufacturing. A few of the more important examples are:

Agriculture, Forestry, and Fishing. Processing on farms is not considered manufacturing if the raw materials are grown on the farm and if the manufacturing activities are on a small scale without the extensive use of paid labor. Other exclusions are threshing and cotton ginning.

Mining. The dressing and beneficiating of ores; the breaking, washing, and grading of coal; the crushing and breaking of stone; and the crushing, grinding, or otherwise preparing of sand, gravel, and nonmetallic chemical and fertilizer minerals other than barite are classified in Mining.

Construction. Fabricating operations performed at the site of construction by contractors are not considered manufacturing, but the prefabrication of sheet metal, concrete, and terrazzo products and similar construction materials is included in the Manufacturing Division.

Wholesale and Retail Trade. Establishments engaged in the following types of operations are included in Wholesale or Retail Trade: cutting and selling purchased carcasses; preparing feed at grain elevators and farm supply stores; stemming leaf tobacco at wholesale establishments; and production of wiping rags. The breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals, is also classified as Wholesale or Retail Trade. Also included in Retail Trade are establishments primarily engaged in selling, to the general public, products produced on the same premises from which they are sold, such as bakeries, candy stores, ice cream parlors, and custom tailors.

Services. Tire retreading and rebuilding, sign painting and lettering shops, computer software production, and the production of motion picture films (including video tapes) are classified in Services. Most repair activities are classified as Services. However, some repair activity such as shipbuilding and boatbuilding and repair, the rebuilding of machinery and equipment on a factory basis, and machine shop repair are classified as manufacturing.

Division E: *Transportation, Communications, Electric, Gas and Sanitary Services*

This division includes establishments providing, to the general public or to other business enterprises, passenger and freight transportation, communications services, or electricity, gas, steam, water or sanitary services, and all establishments of the United States Postal Service.

For many of the industries in this division, the establishments have activities, workers, and physical facilities distributed over an extensive geographic area. For this division, the establishment is represented by a relatively permanent office, shop, station, terminal, or warehouse, etc. that is either (1) directly responsible for supervising such activities or (2) the base from which personnel operate to carry out these activities.

Many of the industries are engaged in various related activities. For example, establishments of communications, pipeline, and utility enterprises include a variety of activities, such as power generation, pumping, transmission, and distribution. Establishments primarily engaged in such activities are all classified in this division. Establishments primarily engaged in new or replacement construction for establishments of these types of enterprises are classified as operating establishments in Division C, Construction. Locations engaged in activities such as sales of electric appliances to household consumers are classified in Division G, Retail Trade.

The establishments classified in this division furnish services to the general public or to other business enterprises; establishments which furnish similar services only to other establishments of the same enterprise are classified as auxiliary to the establishments or units of the enterprise which they serve. However, separate establishments primarily engaged in long-distance trucking, stevedoring, water transportation, or pipeline transportation are classified according to their activity and not as auxiliaries, even though they serve only establishments of the same enterprise.

Division F: *Wholesale Trade*

This division includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm, construction contractors, or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The chief functions of establishments included in Wholesale Trade are selling goods to trading establishments, or to industrial, commercial, institutional, farm, construction contractors, or professional business users; and bringing buyer and seller together. In addition to selling, functions frequently performed by wholesale establishments include maintaining inventories of goods; extending credit; physically assembling, sorting, and grading goods in large lots; breaking bulk and redistribution in smaller lots; delivery; refrigeration; and various types of promotion such as advertising and label designing.

The principal types of establishments included are: (1) merchant wholesalers-wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, truck distributors, retailer cooperative warehouses, terminal elevators, cooperative buying associations, and assemblers, buyers or cooperatives engaged in the marketing of farm products; (2) sales branches and sales offices (but not retail stores) maintained by manufacturing, refining or mining enterprises apart from their plants or mines for the purpose of marketing their products; and (3) agents, merchandise or commodity brokers, and commission merchants.

Establishments primarily engaged in selling merchandise to construction contractors, institutions, industrial users, or businesses are included in Wholesale Trade with a few exceptions. These exceptions are made necessary because of sales to both the general public for personal or household consumption and to businesses, industrial users, or construction contractors. These exceptions are lumber yards; paint, glass, and wallpaper stores, typewriter stores; stationery stores; and gasoline service stations which are classified in Retail Trade, Division G.

However, establishments that sell similar products only to institutions, industrial users, and establishments that sell merchandise for use exclusively by business establishments or to other wholesalers are classified in Wholesale Trade. Establishments primarily engaged in selling such merchandise as plumbing equipment; electrical supplies; used automobile parts; and office furniture are classified in Wholesale Trade, even if a higher proportion of their sales are made to individuals for household use. Establishments primarily engaged in the wholesale distribution of used products are classified on the basis of the products sold.

Guidelines for the classification of establishments primarily engaged in the wholesale distribution and construction or installation of equipment manufactured by other establishments are outlined in the Introduction to Division C, Construction.

Division G: *Retail Trade*

This division includes establishments engaged in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods. In general, retail establishments are classified by kind of business according to the principal lines of commodities sold (groceries, hardware, etc.), or the usual trade designation (drug store, cigar store, etc.). Some of the important characteristics of retail trade establishments are: the establishment is usually a place of business and is engaged in activities to attract the general public to buy; the establishment buys or receives merchandise as well as sells; the establishment may process its products, but such processing is incidental or subordinate to selling; the establishment is considered as retail in the trade; and the establishment sells to customers for personal or household use. Not all of these characteristics need be present and some are modified by trade practice.

For the most part, establishments engaged in retail trade sell merchandise to the general public for personal or household consumption. Exceptions to this general rule are lumber yards; paint, glass, and wallpaper stores; typewriter stores; stationery stores; and gasoline service stations which sell to both the general public for personal or household consumption and to businesses. These types of stores are classified in Retail Trade even if a higher proportion of their sales is made to other than individuals for personal or household consumption.

However, establishments that sell these products only to institutional or industrial users and to other wholesalers and establishments that sell similar merchandise for use exclusively by business establishments are classified in Wholesale Trade.

Establishments primarily engaged in selling such merchandise as plumbing equipment; electrical supplies; used automobile parts; and office furniture are classified in Wholesale Trade, even if a higher proportion of their sales is made to individuals for personal or household consumption.

Buying of goods for resale to the consumer is a characteristic of retail trade establishments that particularly distinguishes them from the agricultural and extractive industries. For example, farmers who sell only their own produce at or from the point of production are not classified as retailers.

Processing incidental or subordinate to selling often is conducted at retail stores. For example, restaurants prepare meals, and meat markets cut meat. Separate establishments selling merchandise for personal or household consumption which has been manufactured by other establishments of the same company are classified in Retail Trade.

Chain store warehouses are considered auxiliary to the retail establishment served and are classified on the basis of the activity carried on by such retail stores.

Establishments primarily engaged in the retail sale of used motor vehicles, trailers, and boats are classified in Major Group 55; those selling used mobile homes are classified in Industry 5271; those selling used automobile parts are classified in Wholesale Trade, Industry 5015; and those selling all other used merchandise are classified in Industry Group 593. Establishments primarily engaged in non-store retailing are classified in Industry Group 596.

Division H: *Finance, Insurance and Real Estate*

This division includes establishments operating primarily in the fields of finance, insurance, and real estate. Finance includes depository institutions, non-depository credit institutions, holding (but not predominantly operating) companies, other investment companies, brokers and dealers in securities and commodity contracts, and security and commodity exchanges. Insurance covers carriers of all types of insurance, and insurance agents and brokers. Real estate includes owners, lessors, lessees, buyers, sellers, agents, and developers of real estate. Establishments primarily engaged in the construction of buildings for sale (operative builders) are classified in Construction, Industry 1531.

Division I: *Services*

This division includes establishments primarily engaged in providing a wide variety of services for individuals, business and government establishments, and other organizations. Hotels and other lodging places; establishments providing personal, business, repair, and amusement services; health, legal, engineering, and other professional services; educational institutions; membership organizations, and other miscellaneous services, are included.

Establishments which provide specialized services closely allied to activities covered in other divisions are classified in such divisions.

Appendix C

Multivariate Analysis

The purpose of the current multivariate analysis is to assess what employer characteristics distinguish employers that offer health insurance from those that do not offer insurance. The employer characteristics considered here include firm size, percentage of full-time employees, profit/non-profit, years of doing business in West Virginia, and income brackets. A binary logistic regression (backward stepwise) model was applied in which offering status was treated as the dependent variable and the five employer characteristics were treated as categorical independent variables, with the first category set as a contrast reference. The dependent variable, offering status, is coded as 0=does not offer and 1-offers. The five independent variables were coded as: 1) Wage scale: 1= low wage; 2=moderate low; 3= moderate; 4 high wage; 2) Firm size: 1 = 4 to 9 employees; 2=10 to 49; 3= 50 to 99; and 4=100 and above; 3) Percentage of full-time employees: 1=less than 50% full-time employees; 2= 50 to 74%; 3= 75 to 89%; 4= 90 to 100%; 4) Profit/non-profit: 1= for profit; 2= non-profit; 5) years of doing business in West Virginia: 1= less than 10 years; 2=10 to 20 years; 3 = 20 to 35 years; and 4= 35+ years. The last step regression result is shown in following table.

Multivariate Analysis Result

	B	Sig.	Exp(B)
WAGE Scale		0.000	
WAGE Scale (1)	1.214	0.000	3.368
WAGE Scale (2)	2.237	0.000	9.366
WAGE Scale (3)	2.132	0.000	8.434
Firm SIZE		0.000	
Firm SIZE (1)	1.197	0.000	3.311
Firm SIZE (2)	3.490	0.007	32.776
Firm SIZE (3)	3.875	0.001	48.195
Percentage of Full-time employee		0.006	
Percentage of Full-time employee (1)	-0.143	0.767	0.867
Percentage of Full-time employee (2)	1.057	0.026	2.876
Percentage of Full-time employee (3)	0.712	0.090	2.037
Constant	-1.907	0.000	0.149

Profit/non-profit and years of doing business in West Virginia are not statistically significant and are excluded from the final analysis. The above table shows that firm size has the biggest effect on whether employers offer health insurance or not, followed by employee income bracket, and percentage of full-time employees.