

**PAYROLL TAX INCIDENCE ON SMALL BUSINESSES: AN EMPIRICAL
INVESTIGATION OF SHIFTING THE PAYROLL TAX BURDEN¹**

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ABSTRACT

The payroll tax earmarked for the financing of social security benefits has been the leading growth tax on small businesses over the past few decades. Small businesses pay more in payroll tax than in any other form of tax. Indeed, these taxes are levied on small businesses irrespective of their profits. The statutory incidence of one-half of the payroll tax being paid by the employer and one-half by the employee may be very different from the actual incidence of the tax due to employer shifting mechanisms.

While there has been considerable conjecture about the shifting of the payroll tax burden, there has been very little research that has explicitly studied the shifting mechanisms undertaken by small businesses. In this study, responses were elicited from a sample of 182 small business owners in the Hampton Roads area of Virginia to ascertain whether the payroll tax is shifted by passing it on to the consumer by way of increased prices, passing it on to the employee by way of reduced wages, or absorbed by the business reducing profits. This inquiry found that, in general, small businesses are not likely to shift the employer's share of the tax burden to employees. Specifically, the most popular alternative in dealing with payroll tax increases was to increase prices for their product/service.

INTRODUCTION

The payroll tax earmarked for the financing of social security benefits has been the leading growth tax over the past few decades. The Old Age Survivors Disability Health Insurance (OASDHI) tax is basically a universal tax levied at a proportional rate on wages and salaries. One-half of the payroll tax is levied on the employer, and the employee pays the other one-half. Despite the simplicity of the statutory levy, the fundamental problem in the analysis of payroll tax burden is the question of which economic group actually bears the tax burden

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(Brittain, 1972). The effects of the payroll tax on the distribution of tax burden, income inequality, and other performance measures depend upon critical assumptions regarding the incidence of the tax. While seemingly one-half of the payroll tax is paid by the employer and one-half by the employee, this is merely the statutory incidence. The actual incidence of the payroll tax may be very different due to shifting mechanisms. For instance, the employer may shift his/her payroll tax burden to the employees by way of lower wages or to the customers by way of higher prices.

Extant theoretical analyses that address the incidence of the payroll tax depends upon critical assumptions about the product and labor markets. Specifically, the elasticity of the labor market, the strength of the substitution effect, and the elasticity of demand for the product will determine whether the payroll taxes are shifted backward to employees, forward to customers, or borne by capital. While there has been much conjecture, there has been very little research that has explicitly studied the shifting mechanisms undertaken by employers. Most researchers concede that the question of incidence of payroll tax remains unresolved. It is because of this unresolved issue and the prominence of the tax to millions of small businesses that this study is necessary. In this study, responses were elicited from a sample of small business owners to ascertain whether the payroll tax is shifted backward, forward, or borne by profits.

In the next section, the background of the study is provided and the motivation for conducting this study. The third section describes the questionnaire sent to small businesses in the Hampton Roads area of Virginia. This is followed by a presentation of results, and finally, the paper ends with a summary, conclusion and limitations. In general, small businesses tend to deal with payroll tax increases by increasing the price of their product or service, or to accept lower profits.

BACKGROUND AND MOTIVATION

Payroll Tax History and Procedures

The payroll tax was instituted in 1935 with the explicit objective of providing retirement income for the participants. Since this tax enactment, its relative share of the federal revenue has gone from zero to thirty percent. Between 1970 and 1990, there were eleven Federal Insurance Contributions Act (FICA) tax rate increases amounting to a sixty percent rise, and nineteen FICA tax base increases cumulatively totaling a 630 percent increase (FICA tax base is indexed every year). In 1993, the cap on the health insurance portion of the payroll tax (2.9 percent) was completely eliminated. Currently, for 2001, both the employer and employee each pay 6.20 percent for the social security portion of the FICA tax on earnings up to \$80,400. Additionally each pays 1.45 percent toward Medicare on an unlimited income base (Internal Revenue Service, 2001).

Small business employers report FICA taxes on a quarterly basis on federal form 941, Employer's Quarterly Federal Tax Return. Form 941 may be filed by mail, by electronic methods, by telephone, or on magnetic tape. Quarterly payroll tax accumulations of less than \$2,500 (reduced by the advance earned income credit) are paid with federal form 941. Quarterly payroll tax accumulations of more than \$2,500 must be deposited at an authorized financial institution on either a monthly or semi-weekly schedule, and the federal form 941 sent to the Internal Revenue Service separately. The deposit schedule is based on a "lookback" at the four previous quarters' total payroll taxes. Businesses reporting \$50,000 or less in payroll taxes use a monthly schedule, making payroll tax deposits on the 15th day of the month following the pay period. Businesses reporting more than \$50,000 in payroll taxes use a semi-weekly schedule, making payroll tax deposits for pay periods falling on Wednesday

through Friday on the following Wednesday, and for pay periods falling on Saturday through Tuesday on the following Friday. Payroll tax deposits are payable by check, money order or cash. Taxpayers with total depository taxes of more than \$200,000 in 1999 are required to deposit payroll taxes by electronic funds transfer (Internal Revenue Service, 2001).

Politically, it has been relatively easy to increase payroll tax rates for the following reasons: (1) the payroll tax is cloaked as a contribution towards retirement (although no real fund exists and the system operates on a pay-as-you-go basis), (2) it is tied to increased expenditure on retirement and Medicare that affect the important elder generation who tend to be politically active, and (3) unlike other taxes, there is no important constituency that lobbies strongly against the increase in the payroll tax..

Payroll Tax and Small Businesses

Payroll taxes have been, by far, the fastest growth tax on small businesses. Small businesses pay more in payroll tax than in any other form of tax. Indeed, these taxes are levied on small businesses irrespective of their profits. Unlike large businesses, payroll taxes are much more debilitating for small businesses for the following reasons: (1) small businesses in general tend to be more concentrated in those sectors of business that tend to be primarily labor intensive; (2) small businesses cannot as easily shift from labor to capital expenditures when payroll taxes increase because capital equipment is expensive; (3) small businesses do not have the financial resources to withstand prolonged periods of poor earnings, and consequently, most small businesses survive not on profits but on cash flow, and payroll taxes exert tremendous pressure on cash flow; (4) even though the employer's share of the payroll tax is allowed as a deduction, small businesses because they are in lower tax brackets get less tax relief as compared to large companies that are in the higher tax brackets; and (5) since small businesses tend to have mainly lower minimum wage earning employees, the payroll tax can be a much higher percentage of the total payroll as compared to large businesses who often have highly paid employees who earn more than the ceiling on the payroll tax. Given these problems, the effect of payroll tax on small businesses is vastly different from its effect on large businesses.

Research Question: Who Bears the Payroll Tax Burden?

According to the law, employers and employees split the FICA tax; each pays half the tax. However, as mentioned earlier, the actual incidence of the tax may be very different from the statutory incidence due to shifting mechanisms. The popular assumption is that the employer portion of the payroll tax is borne by the consumer in the form of higher prices (Pechman, Aaron, & Taussig, 1968). Several economists disagree and claim that a major portion of the employer's share of the payroll taxes falls on the employee in the form of lower wages (Brittain, 1971, 1972; Break, 1981). Because of conflicting theories, most economists concede that the ultimate incidence of the payroll tax would depend upon the critical assumptions made regarding the product and labor markets.

When payroll taxes are increased, a small business owner has three options: (1) pass the increased cost on to the consumer by way of increased prices; (2) pass the increased cost on to the employee by way of reduced wages; or (3) accept reduced profits.² The purpose of this study is to investigate what shifting mechanism (if any) is undertaken by a small business owner in dealing with payroll taxes.

² These options are also discussed by Mark Isakowitz in his testimony on a hearing on "Payroll tax burden on small business" before the House Committee on Small Business, Subcommittee on Taxation and Finance, June 28, 1995.

EXTANT RESEARCH

Notwithstanding its policy relevance, the issue of who bears the payroll tax burden has remained unresolved. Extant research on tax incidence, though numerous, has focused primarily on the economics of different shifting mechanisms. Empirical studies in this area have employed either a time-series or a cross-sectional analysis of wages, tax rates, employment rates and prices of commodities. For instance, Hamilton (1999) presents a methodological approach for the analysis of tax incidence that encompasses familiar forms of taxation in a general and analytically convenient model. Kesselman (1996) employs an analytical model to study the short and long run incidence of employer payroll taxes in Canada. They found that in the long run, the tax burden is shifted to reduced wages. Gruber (1997) documents the incidence of payroll taxation before and after the privatization of the Social Security system in Chile. Using data from a census of manufacturing firms, the study concludes that the incidence of payroll taxation is fully on wages. Wang (1993) documents the incidence effects of the corporate income tax using duality theory for a two-sector general equilibrium model. The study demonstrates that capital always bears more of the corporate tax burden than does labor. However, despite significant research in the area of tax incidence in general, the real shifting mechanism of payroll taxes remains elusive.

Importance of the Research Issue

As explained above, there is a paucity of research in the area of payroll tax incidence. The little research that exists analyzes the issue of tax incidence through economic models. Furthermore, none of the extant research focuses exclusively on the effects of payroll tax on small business owners. In this paper, the shifting mechanisms employed by small business owners to deal with the increasingly burdensome payroll taxes are studied. Through a survey of small business owners, the research documents whether payroll taxes are shifted to the consumer, and/or to the employee, or are borne by the owners themselves. This research issue is relevant and timely given the recent dwindling federal surplus and the renewed debate in the area of tax cuts and tax reform. Increased attention needs to be focused on small businesses and payroll taxes to ensure that they are not forgotten once again.

RESEARCH METHODOLOGY

The questionnaire method of inquiry was used to ascertain what shifting mechanisms, if any, are utilized by small businesses in response to increases in payroll taxes. The small business population surveyed was the Hampton Roads area of Virginia. A discussion of the method used, and survey employed follows.

Method

A questionnaire was developed and mailed out to 1,599 small businesses in the major cities of the Hampton Roads area of Virginia. The sample was obtained from the 1999 *Corporate America* CD-ROM Database that listed 3,560 small businesses in the cities selected (Knight-Ridder, 1999). Thus the sample included approximately 45 percent of the small businesses in the area. In order to increase the confidence of the potential respondents and encourage them to participate in the study, total anonymity was assured. The questionnaires did not contain any means of identifying respondents from non-respondents, therefore a follow-up mailing to non-respondents was not possible. Out of the initial mailing, 159 questionnaires were returned as undeliverable.

Of the remaining 1,440 questionnaires, 182 responses were returned for a response rate of 12.64 percent. Two factors led to a lower than expected response rate. First, immediately after the mailing of the questionnaires, the Hampton Roads area of Virginia was battered by two

hurricanes that wreaked unprecedented damage to many small businesses in the area. This might have led to several of the questionnaires being misplaced or damaged. Secondly, since anonymity was promised and since the questionnaires were not identified as to respondent in any way, it was not possible to send reminder letters to the participants who did not respond. However, given the sample size of 182, the results can provide useful insights into the actual incidence of payroll tax increases on small businesses.

Questionnaire

In developing the questionnaire, there was a need to balance the two countervailing issues of eliciting as much relevant information as necessary to do the analysis, but keeping the questionnaire short so as to increase the response rate. Eventually, a questionnaire was designed that was approximately two pages in length and could be completed in less than 10 minutes.

The questionnaire consisted of four sections. The first section elicited participant's responses regarding their feelings toward the social security tax. Respondents were asked to indicate their opinion of the minimum number of employees a business must have before the payroll tax is mandated, what annual revenue should a business earn before it is subject to the payroll tax rules, what is the fairest rate of payroll tax, and whether they consider the current payroll tax system to be fair.

In the second section, respondents were asked to detail their actions in response to a hypothetical increase of one percent in the employer's portion of the social security tax. The second section consisted of three parts. In part A, the survey ascertains whether the small business owner would pass on all or some part of the tax increase to his/her employees. Likewise, in parts B and C, there was an attempt to assess whether the small business owner would pass all or some part of the tax increase to the customers and whether the small business owner would bear all or some part of the tax increase himself/herself by way of lower profits.

In the third section, respondents were asked to allocate (in dollars) a fixed increase in payroll tax to various components such as wages, prices, and profits. The intent behind this section is to determine the proportion of tax shifted to employees and customers, as well as the proportion borne by the business owner. Small business owners were asked to allocate a hypothetical increase of \$1,000 dollars in their payroll tax to a reduction in employee wages, an increase in customer prices and a reduction in the profits accruing to themselves.

Finally, in the fourth section, the survey elicited some demographic information regarding the small business such as approximate annual revenue, approximate number of employees and the type of industry they were in (automotive, painting, etc.). For a copy of the survey instrument used in this study, see Appendix A.

Descriptive Statistics

The descriptive statistics of the data are given in Tables 1, 2 and 3. As depicted, responses were received from small businesses engaged in eighteen different industries ranging from manufacturing, construction, public accounting, software, marketing and advertising to dealing with local and federal government and not-for-profit organizations. Manufacturing, construction, health, hotel-restaurant, retail and service industries were represented more than any others. The responses also included small businesses of different sizes ranging from less than 10 employees to greater than 50 employees. Almost 40 percent of the responses were from small businesses employing between 26 and 50 employees. Furthermore, the data

represented truly small businesses in that approximately 19 percent had annual revenues less than 1 million and 62 percent had revenues between 1 million and 10 million.

Table 1
Classification by Industry

Industry	Frequency	Percentage
Service	31	17.0
Construction	21	11.5
Manufacturing	17	9.3
Retail	17	9.3
Hotel-Restaurant	16	8.8
Not for profit	16	8.8
Health	15	8.2
Wholesale	9	4.9
Real Estate	8	4.4
Engineering	6	3.3
Marketing-Advertising	4	2.2
Transportation	4	2.2
Legal	3	1.6
Public Accounting	3	1.6
Federal Government	3	1.6
Banking	2	1.1
Software	2	1.1
Insurance	1	0.5
Communication	1	0.5
Local Government	1	0.5
24 hour	1	0.5
Not Reported	1	0.5
TOTAL	182	100

Table 2
Classification by Number of Employees

Number of Employees	Frequency	Percentage
< 10	10	5.5
11-25	44	24.2
26-50	72	39.6
> 50	56	30.8
TOTAL	182	100

Table 3
Classification by Annual Revenue

Annual Revenue	Frequency	Percentage
< 1 million	35	19.2
1 million – 10 million	113	62.1
11 million – 25 million	16	8.8
26 million – 50 million	4	2.2
51 million – 100 million	3	1.6
> 100 million	8	4.4
Not Reported	3	1.6
TOTAL	182	100

RESULTS

Perceptions regarding the payroll tax

Table 4 presents the results of the two questions that elicited responses as to who should pay the payroll tax based on the number of employees and on annual revenue. Approximately, 71 percent of the respondents opined that everyone must pay some payroll tax irrespective of the number of employees employed by the business. Similarly, 71 percent of the respondents felt that the payroll tax must be paid irrespective of the amount of annual revenue earned by a business. Given the overwhelming support for the universal application of the payroll tax, it can be concluded that small businesses are not averse to the imposition of the payroll tax as long as it is fair (as discussed later in the paper).

Table 4
Who should pay the payroll tax?

Panel A

Who should pay the payroll tax?	Frequency	Percentage
Need not pay if number of employees <25	23	12.6
Need not pay if number of employees <50	22	11.9
Everyone must pay some payroll tax	129	70.9
Not Reported	8	4.4
TOTAL	182	100

Panel B

Who should pay the payroll tax?	Frequency	Percentage
Need not pay if annual revenues <100K	21	11.4
Need not pay if annual revenues < 500K	22	11.9
Everyone must pay some payroll tax	129	70.9
Not Reported	10	5.5
TOTAL	182	100

On the question of what is the fair rate of social security tax, the response had a mean of 3.76 percent (median 5 percent). Responses (Table 5) ranged from 0 percent to 8 percent. A rate of 3 percent to 5 percent was favored by 44.5 percent of the respondents. An overwhelming majority of taxpayers (87.4 percent) indicated a preference for a rate below the current rate of 6.2 percent.

Table 5
What is a fair payroll tax rate?

Rate	Frequency	Percentage
0 %	24	13.2
1 %	10	5.5
2 %	15	8.2
3 %	21	11.5
4 %	14	7.7
5 %	46	25.3
6 %	29	15.9
7 %	8	4.4
8 %	2	1.1
Not Reported	13	7.1
TOTAL	182	100

In assessing the fairness of the current social security tax system (Table 6), just over half of the respondents (52.8 percent) disagreed or strongly disagreed with the statement that the current system was fair. These respondents were equally divided between "Disagree" and "Strongly Disagree." Nevertheless, the statement found support from approximately one-third (33 percent) of the respondents indicating that there is a significant minority of small businesses that considers the current social security tax system to be a fair system. However, only 3.3 percent of small businesses "strongly agreed" that the current social security tax system was fair.

Table 6
Is the social security tax system fair?
 Responses to the statement "Overall the social security system is fair."

Responses (to above statement)	Frequency	Percentage
Strongly disagree	46	25.3
Disagree	50	27.5
Undecided	24	13.2
Agree	54	29.7
Strongly Agree	6	3.3
Not Reported	2	1.1
TOTAL	182	100

Effect of Payroll Taxes on Wages, Prices and Profits

The second section of the questionnaire elicited responses on how a small business manager would react to a hypothetical increase in the social security tax. Table 7 documents the responses with respect to employees. Obviously, as expected, an overwhelming majority (approximately, 85 percent) of respondents indicated that an increase in their portion of the payroll tax would not prompt them to increase wages of the employees. However, surprisingly, an overwhelming majority of the respondents (approximately 84 percent) also indicated that they were "unlikely" or "very unlikely" to decrease employees' pay. The reliability of this conclusion is also established by their response to the "no change" alternative. Nearly 82 percent of small business owners indicated that a one percent increase in their portion of payroll tax was "likely" or "very likely" to result in no change in employees' pay. The result was consistent across all industries.

This result is in stark contrast to the general belief and conclusions of prior research (Brittain, 1971, 1972; Break, 1981; Gruber, 1997; Kesselman, 1996) that most or at least some of the employer's portion of the payroll tax is shifted backward to labor by means of lower wages. This conclusion may not be applicable for small businesses since their labor structure is fundamentally different from that of large corporations. In general, small businesses tend to employ lower paid employees with many of their employees drawing the minimum wage. It may be legally impossible to decrease the wages of their employees (below minimum wage).

Table 8 documents the small business managers' reactions relating to shifting of the additional tax burden to customers by way of price increases. In responding to the statement that an increase in payroll taxes will result in no change in the price of product or service, the respondents were evenly split. Roughly, 44 percent of the respondents expressed that an increase in payroll tax was likely or very likely to leave the prices unchanged while approximately 45 percent of the respondents suggested that an increase in payroll tax was unlikely or very unlikely to leave the prices unchanged. With regard to how much of the one percent increase in the payroll tax would be shifted to the consumers, about 31 percent of the respondents suggested that they were likely or very likely to increase the price by less than one percent, about 35 percent suggested that they were likely or very likely to increase prices by exactly one percent, and about 38 percent of the respondents suggested that they were likely or very likely to increase prices by greater than one percent.

Table 7
Actions regarding employees prompted by an increase in payroll tax
Responses to a hypothetical increase of 1 percent in the current payroll tax

Reaction	Frequency					Total
	Very Unlikely	Unlikely	Undecided	Likely	Very Likely	
Reduce employees pay by >1 percent	82	59	11	6	6	164
Reduce employees pay by exactly 1 percent	73	65	12	5	9	164
Reduce employees pay by < 1 percent	74	61	18	5	3	161
No change in employees pay	13	5	13	44	99	174
Increase employees pay by < 1 percent	90	43	19	5	2	159
Increase employees pay by exactly 1 percent	92	45	17	1	5	160
Increase employees pay by > 1 percent	94	42	15	3	5	159

Table 8
Actions regarding customers prompted by an increase in payroll tax
Responses to a hypothetical increase of 1 percent in the current payroll tax

Reaction	Frequency					Total
	Very Unlikely	Unlikely	Undecided	Likely	Very Likely	
Reduce price by >1 percent	113	42	4	0	0	159
Reduce price by exactly 1 percent	112	42	5	1	1	161
Reduce price by < 1 percent	107	43	6	1	1	158
No change in price of product/service	43	27	18	34	34	156
Increase price by < 1 percent	52	35	25	37	14	163
Increase price by exactly 1 percent	49	33	22	34	23	161
Increase price by > 1 percent	47	33	21	28	34	163

Table 9 summarizes the opinion of small business owners regarding the effect of increased payroll taxes on resultant profits. Almost one third (33.3 percent) of the respondents felt that resultant profits would be unaffected by a change in payroll taxes. However, almost half of the respondents (49.6 percent) felt that an increase in payroll taxes would result in a change in their profit. Just over a third of the respondents (36.2 percent) felt that a one percent increase in their share of payroll taxes will likely and very likely result in a decrease in profits greater

than one percent, a quarter of the respondents (23.5 percent) felt that their profits will likely and very likely decrease by exactly one percent, and over a third of the respondents (36.0 percent) felt that their profits would decrease by less than one percent.

Table 9
Effect on profit prompted by an increase in payroll tax
Responses to a hypothetical increase of 1 percent in the current payroll tax

Reaction	Frequency					Total
	Very Unlikely	Unlikely	Undecided	Likely	Very Likely	
Profit decrease by >1 percent	44	42	16	32	26	160
Profit decrease by exactly 1 percent	45	48	24	24	12	153
Profit decrease by < 1 percent	33	39	29	39	18	158
No change in profit	44	38	28	23	32	165
Profit increase by < 1 percent	86	46	15	4	3	154
Profit increase by exactly 1 percent	89	46	16	2	1	154
Profit increase by > 1 percent	91	47	12	2	3	155

Shifting the payroll tax burden

The third section of the questionnaire requires the small business to allocate a hypothetical \$1,000 increase in their payroll tax bill to employees (by way of lower wages), customers (by way of higher prices) and profits. Table 10 presents the results.

On the average, respondents indicated that of the \$1,000 dollar increase in payroll taxes, they would pass on \$126 to their employees by way of lower wages, shift \$602 to their customers by way of higher prices and would bear \$272 by way of lower profit. However, the distribution of responses was not uniform. More than a third (34 percent) of the respondents indicated that they would shift the entire increase to their customers by way of higher prices. Approximately 13 percent of the respondents indicated that they would bear the entire tax increase by way of lower profits while approximately 11 percent of the respondents indicated that half of the tax increase would be shifted forward to their customers and half borne by themselves by way of lower profits. Only 3.6 percent of respondents indicated that they would shift the entire tax increase to employees by way of lower wages, and about 6 percent of respondents indicated that the tax increase would be passed on to employees and customers equally. Clearly, contrary to popular belief, small businesses seem to be limited in their ability to shift much of the payroll tax backward to labor.

SUMMARY, CONCLUSION, AND LIMITATIONS

Summary

In this study, the shifting mechanisms employed by small businesses to deal with payroll taxes were examined. The statutory operation of the law was explained and why the actual incidence may be different than the statutory incidence. The study also explicated how payroll taxes might affect small businesses differently from other large businesses. The conventional

assumption that all or most of the employer's portion of the tax is passed on to labor may not be valid in the case of small businesses. By way of a survey of small businesses, we attempted to glean the shifting mechanisms employed by them in dealing with payroll taxes. In doing so, the actual incidence of the payroll taxes is also revealed.

Table 10
Shifting the Payroll Tax to Employees, Customers and Profits

Percentage Share Shifted to:			Frequency	Percentage
Employees	Customers	Profit		
0	100	0	59	34.9
0	0	100	22	13.0
100	0	0	6	3.6
0	50	50	18	10.7
0	70	30	5	3.0
0	80	20	4	2.4
0	90	10	3	1.8
0	75	25	3	1.8
0	25	75	2	1.2
0	95	5	1	0.6
0	85	15	1	0.6
0	40	60	1	0.6
0	20	80	1	0.6
0	10	90	1	0.6
50	50	0	10	5.9
25	75	0	2	1.2
20	80	0	2	1.2
75	25	0	1	0.6
70	30	0	1	0.6
10	90	0	1	0.6
50	0	50	2	1.2
25	0	75	1	0.6
33	33	34	4	2.4
10	80	10	3	1.8
50	25	25	2	1.2
30	50	20	2	1.2
25	50	25	2	1.2
25	25	50	2	1.2
50	40	10	1	0.6
50	30	20	1	0.6
40	20	40	1	0.6
30	30	40	1	0.6
25	40	35	1	0.6
20	70	10	1	0.6
20	60	20	1	0.6
TOTAL			169	100.0

Conclusion

We found that, in general, small businesses are not likely to shift the employer's share of the tax burden to employees. Indeed, most respondents indicated a marked reluctance to decrease employee pay. In contrast, the most popular alternative in dealing with payroll tax increases was to increase prices demanded for their product/service. Less than 15 percent of the small businesses indicated that an increase in the payroll tax would be totally shifted to reduce profits for the business. With regard to the actual shifting mechanism, on average, small businesses tended to shift more than 60 percent of the tax burden to customers by way of higher prices. Employee wages were minimally affected, while there was a moderate reduction in the amount of profit generated by the business. Pursuant to the research by Pechman et al. (1968), the findings of this study suggest that small businesses pass payroll tax increases on to their customers rather than reducing employee's wages.

Limitations

In interpreting these results, the following limitations must be carefully considered. First, the survey includes the specific geographic area of Hampton Roads area Virginia. While there is no evidence to suggest that the small businesses surveyed in this area are any different from small businesses elsewhere, one must consider this in generalizing these results to other parts of the country. Second, in the interest of increasing the response rate, the questionnaire was limited in its inquiry of small businesses. For instance, the questionnaire presents the small businesses with only three options; decrease wages, increase prices, and reduce profits. Other options are possible. For instance, one option that a small business could consider is laying off employees. Given that most small businesses do not tend to have excess capacity, this may not be possible. If despite lack of excess capacity, employees are laid off, this will ultimately result in lower profit. Finally, the conclusion that employees' pay is minimally affected should also be interpreted with caution. Fringe and other employee benefits may be affected, bonuses may be canceled, and raises may be delayed.³

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APPENDIX - SOCIAL SECURITY TAX QUESTIONNAIRE

PART 1 These questions ask about your feelings towards the social security (payroll) tax. Please circle any one among the choices provided to indicate your response.

1. A business should not have to pay any social security tax if the number of employees is less than:
 5 10 15 20 25 30 35 40 45 50 Do Not Agree

2. A business should not have to pay any social security tax if the annual revenues of the business is less than (in thousands of dollars):
 Less than 20 40 60 80 100 150 200 300 400 500 Do Not Agree

3. The fairest rate of social security tax for a business (excluding the Medicare portion) is:
 (Circle anywhere on the line to indicate your response.)
 0%---|---1%---|---2%---|---3%---|---4%---|---5%---|---6%---|---7%---|---8%---|---9%---|---10%

4. Overall the social security tax system is fair.
 (1) (2) (3) (4) (5)
 Strongly Disagree Disagree Undecided Agree Strongly Agree

PART 2 These questions ask your likely reactions to an INCREASE in the social security tax rate.

Assume that the employer's portion of the social security tax rate is increased from 6.2% to 7.2% (one-percentage point):

Your reaction to the increase will be (please check your response)

A. REGARDING EMPLOYEES

	Likely Reaction	Very Likely	Likely	Un-decided	Un-likely	Very Un-likely
1	To reduce employees' pay by more than one percentage point					
2	To reduce employees' pay by exactly one percentage point					
3	To reduce employees' pay by less than one percentage point					
4	No change to employees' pay					
5	To increase employees' pay by less than one percentage point					
6	To increase employees' pay by exactly one percentage point					
7	To increase employees' pay by more than one percentage point					

Still assuming that the employer's portion of the social security tax rate is increased from 6.2% to 7.2%:

Your reaction to the increase will be:

B. REGARDING THE PRICE OF PRODUCTS AND SERVICES

Likely Reaction		Very Likely	Likely	Un-decided	Un-likely	Very Un-likely
1	To reduce product/service price by more than one percentage point					
2	To reduce product/service price by exactly one percentage point					
3	To reduce product/service price by less than one percentage point					
4	No change to product/service price					
5	To increase product/service price by less than one percentage point					
6	To increase product/service price by exactly one percentage point					
7	To increase product/service price by more than one percentage point					

Still assuming that the employer's portion of the social security tax rate is increased from 6.2% to 7.2%:

Your reaction to the increase will be:

C. REGARDING YOUR PROFITS

Likely Reaction		Very Likely	Likely	Un-decided	Un-likely	Very Un-likely
1	Profit will be reduced by more than one percentage point					
2	Profit will be reduced by exactly one percentage point					
3	Profit will be reduced by less than one percentage point					
4	No change to profit					
5	Profit will increase by less than one percentage point					
6	Profit will increase by exactly one percentage point					
7	Profit will increase by more than one percentage point					

(Continued)

PART 3 The next question is very important because it asks you how you will apportion an increase in the social security tax between employees' wages, prices charged to customers, and your profit.

Assume that an increase in the social security tax rate has resulted in a \$1000 increase in your social security tax bill. Decide how much of it you will shift to your employees by way of lower wages, how much you will shift to customers by way of higher prices, and finally how much of it you will bear yourself by way of lower profits. The total should add up to \$1000.

	Amount (in \$)
Employees	_____
Customers	_____
Your Profit	_____
TOTAL	<u> \$1,000</u>

PART 4 **Demographics**

This questionnaire is confidential. The following items are not intended to identify you, but instead, they help us better understand your responses. For example, we might look at the responses to see if businesses of a particular size tend to answer questions similarly or businesses in a particular industry tend to answer questions similarly.

1. What is the industry classification of your company? (Check one only)

1 Manufacturing	13 Marketing/Advertising
2 Banking/Financial	14 Public Utilities
3 Insurance	15 Research/Development
4 Architectural/Engineering	16 Transportation
5 Legal	17 Wholesale Distribution
6 Public Accounting	18 Retail Trade
7 Construction	19 Government- Federal
8 Real Estate	20 Government- State
9 Communications	21 Government- Local
10 Health Care	22 Non-Profit Org.
11 Hotels/Restaurants	00 Other
12 Computer Software	Specify_____

2. How many employees are at this location?

1 Less than 10	3 26- 50
2 11- 25	4 More than 50

3. What is the company's approximate annual revenue per year? (Check one only)

1 Less than \$1 million	6 \$101 million - \$250 million
2 \$1 million- \$10 million	7 \$251 million- \$500 million
3 \$11 million - \$25 million	8 \$501 million - \$1 billion
4 \$26 million - \$50 million	9 Greater than \$1 billion
5 \$51 million - \$100 million	