



LOCALLY ADMINISTERED SALES AND USE TAXES

A REPORT PREPARED FOR THE INSTITUTE FOR PROFESSIONALS IN TAXATION

PART II: ESTIMATED COSTS OF ADMINISTERING AND COMPLYING WITH LOCALLY ADMINISTERED SALES AND USE TAXES

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Glossary

The following is a glossary of defined terms used in this part of the report.

Self-Administered Local Sales Tax: A self-administered or locally administered sales tax is a transaction tax for which an individual unit of local government (in contrast to an agency of the state government) is responsible for providing guidance to taxpayers, registering taxpayers, receiving and processing tax returns and remittances, and generally enforcing the tax, including audit, collection and other actions. If the local government enters into a contract with a third-party entity other than the state government for any or all of these functions, it is considered a locally administered tax.

State-Administered Local Sales Tax: A state-administered local sales tax refers to a local transaction tax in which the local government determines whether to impose the tax and the rate at which it is imposed, but administration of the tax is performed by an agency of state government.

Labor Costs: Labor costs include the market value of an employee's time, non-wage benefits paid to an employee, and labor services acquired through third parties.

Non-Labor Costs: Non-labor costs include the cost of goods and services purchased directly or acquired through third parties. These costs include software, third-party services, transaction record maintenance systems, and other related costs.

Incremental Cost of Locally Administered Sales Taxes: The incremental cost of locally administered sales taxes refers to the difference between the costs incurred by taxpayers and jurisdictions in dealing with locally administered sales taxes and the costs these parties would incur if the local taxes were instead administered by the state tax administration agency on behalf of the local governments. In Alabama, Arizona, and Colorado, the state tax administration agency currently administers certain local sales taxes on behalf of local governments. In these states, the incremental cost incurred by taxpayers is based on the actual cost of complying with self-administered local taxes compared to the cost of complying with state-administered local taxes as reported by respondents to the taxpayer survey administered as part of this project. In Louisiana, the state tax administration agency administers few local sales taxes on behalf of local governments. As a result of the lack of Louisiana-specific information, the calculation of the incremental cost to taxpayers in Louisiana uses the average compliance costs for state-administered local taxes in Alabama, Arizona, and Colorado as a proxy for the cost of complying with local taxes in Louisiana if they were administered by the state tax administration agency.¹ No incremental cost is calculated for Alaska as there is no state sales tax to which administration of the local tax could be tied.

For local jurisdictions, the incremental cost of locally administered taxes is the difference between the costs they now incur in self-administering their sales taxes and the costs they would incur if the state tax administration agency assessed a fee for administering the local tax. The total costs incurred by local governments in self-administering their sales taxes in

¹ See Section 6.1 of this Part for the steps used in calculating the incremental cost incurred by taxpayers in complying with locally administered taxes in these states.

these five states is estimated in this Part. The potential costs local jurisdictions would incur if the state tax administration agency assessed a fee for administering the local sales taxes on their behalf are discussed in Part III of the report.

1 Introduction and Executive Summary

1.1 Introduction

This part of the report provides an analysis and quantification of the incremental cost incurred by taxpayers in complying with locally administered sales taxes and by local jurisdictions in administering these taxes. Incremental costs consist of costs incurred that either would not be incurred or are greater than those that would be incurred if the same tax were administered by the state tax administration agency on behalf of the local government. The analysis focuses on taxpayers with filing responsibilities in Alabama, Alaska, Arizona, Colorado, and Louisiana.²

The factors contributing to taxpayer compliance costs included in the evaluation are:

- Monitoring changes to laws and regulations, rate changes, and related employee training;
- Developing and maintaining point-of-sale system and tax engine software for sales tax reporting purposes;
- Preparing and filing sales tax returns;
- Addressing sales tax notices, errors, and delinquencies; and
- Preparing for and defending sales tax audits and appeals.

This analysis developed estimates of incremental costs by surveying a sample of taxpayers with filing responsibilities in one or more of the five identified states. This sample was drawn from a national database of businesses maintained by Hoover Inc. (“Hoover”), part of the Dun & Bradstreet Corporation (“D&B”), and from the membership of the Institute for Professionals in Taxation (“IPT”). Sampled taxpayers and members of IPT were contacted to determine whether they have local general sales tax filing responsibilities in one or more of the five identified states. The survey requested estimates of the number of hours per month that the selected taxpayers spend complying with locally administered general sales taxes in the five states. The survey also requested estimates of the number of hours taxpayers spend on a monthly basis to comply with the state sales tax and any local general sales taxes administered in conjunction with the state sales tax in these five states. The survey also collected information on non-labor costs related to compliance, such as the cost of software acquisition, contract software development and maintenance, and any co-sourcing or outsourcing costs incurred for such functions (e.g., return and remittance filing). Using this information, we developed an estimate of the costs of complying with locally administered taxes and state-administered taxes in the five identified states. We also gathered demographic information on taxpayers, including firm type, annual sales, sales tax remitted, and number of jurisdictions in which taxpayers file to compare the results across firms and these states.

To estimate the incremental costs incurred by local governments in administering locally administered taxes, KPMG surveyed local tax administration agencies. The purpose of the survey was to understand the current process for administering local sales taxes and identify

² Localities in certain other states also administer sales taxes independently; however, such taxes are more prevalent in these states which contributed to the reliability of the results. There is no state sales tax in Alaska against which the incremental cost of local administration may be calculated.

the costs incurred in administering them. The survey collected information regarding estimated costs for sales tax administration in the respondents' respective jurisdictions for the most recently completed fiscal year in the following areas:

- Providing taxpayer guidance, including form development and provision, policy and regulation development, and taxpayer service aimed at assisting in pre-return filing compliance;
- Receiving and processing returns and remittances, and performing taxpayer accounting and reconciliation;
- Conducting office and field audit and compliance activities, including delinquent tax collection; and
- Managing taxpayer protests, appeals, and litigation.

KPMG also gathered information, such as total tax collected and number of personnel devoted to each task.

1.2 Executive Summary

Estimated Costs of Compliance and Administration – Table 1 below summarizes our estimates of taxpayer costs related to complying with state and local sales taxes (including state sales taxes, state-administered local taxes, and self-administered local taxes) and of local jurisdiction costs in administering locally administered sales taxes in the five states. For both taxpayers and jurisdictions surveyed, the total cost consists of labor costs and non-labor costs as defined above. The totals include only the cost of compliance-related labor and compliance-related goods and services; they do not include sales taxes that might be imposed on goods and services purchased or used by the taxpayer or the local jurisdiction outside of the compliance or administration process.

Table 1: Total Estimated Cost to Taxpayers and Jurisdictions by State

State	Cost to Taxpayers	Cost to Locally Administered Jurisdictions	Total Cost
Alabama	\$255,000,000	\$15,000,000	\$270,000,000
Alaska	\$3,000,000	\$7,000,000	\$10,000,000
Arizona	\$166,000,000	\$19,000,000	\$185,000,000
Colorado	\$171,000,000	\$11,000,000	\$182,000,000
Louisiana	\$195,000,000	\$26,000,000	\$221,000,000
Total for all states	\$790,000,000	\$78,000,000	\$868,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

- The estimated total annual taxpayer cost of complying with state and local sales taxes in the five states is \$790 million, and local jurisdictions incur an estimated \$78 million in local government administrative costs. The combined cost is smallest in Alaska (\$10 million) and greatest in Alabama (\$270 million).

- The estimated annual cost to taxpayers of complying with general state and local sales taxes is \$790 million, ranging from \$3 million in Alaska to \$255 million in Alabama.
- The estimated annual administrative cost incurred by local governments in administering locally administered general sales taxes in the five states is \$78 million, ranging from \$7 million in Alaska to \$26 million in Louisiana.

Taxpayer Compliance Costs – The total cost of taxpayer compliance consists of the cost of complying with state sales taxes administered by the state tax administration agency, local sales taxes administered by the state tax administration agency, and locally administered sales taxes. The contribution of each group to the overall cost of taxpayer compliance is summarized in Table 2 below.

- The cost of compliance with the self-administered local sales taxes administered in the five states is \$499 million. By comparison, the cost of compliance with the state sales taxes administered by the state is \$231 million. Compliance with local sales taxes administered by the state on behalf of local jurisdictions is \$60 million.

Table 2: Total Taxpayer Cost of Complying with State and Local Sales Taxes by Type of Jurisdiction and by State³

State	State Tax	State-Administered Local Tax	Self-Administered Local Tax	Total
Alabama	\$74,000,000	\$19,000,000	\$162,000,000	\$255,000,000
Alaska ⁴	\$0	\$0	\$3,000,000	\$3,000,000
Arizona	\$71,000,000	\$20,000,000	\$75,000,000	\$166,000,000
Colorado	\$39,000,000	\$21,000,000	\$111,000,000	\$171,000,000
Louisiana ⁵	\$47,000,000	\$0	\$148,000,000	\$195,000,000
Total for all states	\$231,000,000	\$60,000,000	\$499,000,000	\$790,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

Incremental Taxpayer Compliance Costs – This study focuses on the *incremental cost* of complying with self-administered local sales taxes. The incremental cost is defined as the difference in the cost of compliance relative to an alternative tax regime. For purposes of this report, the incremental costs are determined by comparing the cost of complying with locally administered taxes with the costs that would be incurred if the local taxes were instead administered by the state tax administration agency on behalf of the local governments. In

³ Based on our sampling analysis, we concluded that the results are statistically significant at a level of nearly 80 percent with a precision of 10 percent on a state-by-state basis. This means we are nearly 80 percent certain that the true population value for any one of these states falls within 10 percent of the values estimated. For Alaska, the confidence level is 57 percent with the same precision. Further, the cost estimates by type of tax represent meaningful results about variances in costs by type of tax. We applied generally acceptable statistical techniques and arrived at results consistent with prior research findings and studies. As such, we determined the cost estimates by type of tax are reasonable and useful for general understanding about compliance costs.

⁴ Alaska neither levies a state general sales tax nor administers local taxes on behalf of local jurisdictions.

⁵ Louisiana administers few local sales taxes on behalf of local jurisdictions.

Alabama, Arizona, and Colorado, the state tax administration agency currently administers certain local sales taxes on behalf of local governments. In these states, the incremental cost incurred by taxpayers is based on the actual costs of complying with self-administered local taxes compared to the costs of complying with state-administered local taxes as reported by respondents to the taxpayer survey administered as part of this project. In Louisiana, the state tax administration agency administers few local sales taxes on behalf of local governments. Consequently, the calculation of the incremental cost to taxpayers in Louisiana uses the average compliance costs for state-administered local taxes in Alabama, Arizona and Colorado as a proxy for the cost of complying with local taxes in Louisiana if they were to be administered by the state tax administration agency.⁶ No incremental cost is calculated for Alaska as there is no state sales tax to which collection of the local tax could be tied.

- The incremental cost to taxpayers of complying with locally administered sales taxes in these jurisdictions is estimated at \$190 million. This estimate ranges from \$24 million in Arizona to \$63 million in Alabama. Incremental labor cost comprises nearly two-thirds of taxpayers’ overall incremental cost of compliance. Incremental non-labor cost represent the remaining overall incremental cost

Table 3: Incremental Taxpayer Cost of Complying with Locally Administered Sales Taxes by State

State	Incremental Compliance Cost – Labor Component	Incremental Compliance Cost – Non-labor Component	Incremental Compliance Cost to Taxpayers
Alabama	\$51,000,000	\$12,000,000	\$63,000,000
Alaska	\$0	\$0	\$0
Arizona	\$10,000,000	\$14,000,000	\$24,000,000
Colorado	\$28,000,000	\$20,000,000	\$48,000,000
Louisiana	\$33,000,000	\$22,000,000	\$55,000,000
Total	\$122,000,000	\$68,000,000	\$190,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

Administrative Costs to Jurisdictions⁷ – The estimated total annual cost incurred by local jurisdictions that self-administer their sales taxes in Alabama, Alaska, Arizona, Colorado, and Louisiana is about \$78 million. Total cost is estimated as a sum of labor and non-labor costs. The labor and non-labor costs are estimated at approximately \$60 million and \$18 million per year, respectively.

⁶ See Section 6.1 of this Part II below for the steps used in calculating the incremental cost incurred by taxpayers in complying with locally administered taxes in these states.

⁷ The potential costs that local jurisdictions would incur if the state tax administration agency assessed a fee for administering the local sales taxes on their behalf are addressed in Part III of the report.

Table 4: Costs Incurred by Local Governments in Self-Administering Sales Taxes by State

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$13,000,000	\$2,000,000	\$15,000,000
Alaska	83	\$6,000,000	\$1,000,000	\$7,000,000
Arizona	15	\$17,000,000	\$2,000,000	\$19,000,000
Colorado	70	\$8,000,000	\$3,000,000	\$11,000,000
Louisiana	54	\$16,000,000	\$10,000,000	\$26,000,000
Total	550	\$60,000,000	\$18,000,000	\$78,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

1.3 Report Contents

In addition to the Introduction and Executive Summary, this part of the report contains the following:

- Section 2 defines the scope of the analysis;
- Section 3 describes the taxpayer and jurisdiction surveys used to develop the estimated costs of compliance and administration;
- Section 4 describes the methodology used to identify taxpayer and jurisdiction populations, select a representative sample of taxpayers and jurisdictions, and administer the surveys;
- Section 5 provides the information collected through taxpayer and jurisdiction surveys;
- Section 6 presents and discusses the analysis of the survey results and estimation of total costs for taxpayer and jurisdiction populations; and
- The Appendices provide supporting tables and documentation.

2 Locally Administered Sales and Use Taxes

2.1 Incremental Cost of Locally Administered Sales and Use Taxes

This study evaluated the incremental costs incurred by taxpayers in complying with locally administered sales taxes and the incremental costs incurred by local jurisdictions in administering these taxes. Incremental costs are costs that either would not be incurred or are greater than those that would be incurred if the same tax were administered by the state tax administration agency on behalf of the local governments. Our approach to estimating the incremental costs associated with locally administered sales taxes included developing two surveys for taxpayers and jurisdictions. The surveys were designed to collect data on compliance costs incurred by taxpayers and costs of administration incurred by jurisdictions that locally administered their sales taxes. The results of the surveys were used to develop overall implied administrative and compliance costs by state.

2.2 Data Sources for Incremental Cost of Locally Administered Taxes

The following sources of data were used to complete this study:

- Taxpayer Survey
 - The taxpayer survey obtained information from a sample of taxpayers in the five states with a significant number of jurisdictions self-administering their general local sales tax: Alabama, Alaska, Arizona, Colorado, and Louisiana. The survey collected information on firm demographics and the costs incurred in terms of time spent on sales tax compliance and direct expenditures related to sales tax compliance.
- Taxpayer Interviews
 - To assist in developing the taxpayer survey and test survey questions, KPMG performed interviews with two multistate taxpayers. The interviews were designed to ensure the appropriateness and clarity of the questions in the taxpayer survey as well as the expected availability of the information required to respond.
- Jurisdiction Survey
 - The jurisdiction survey collected information from a sample of local governments that administer their own sales taxes. Each jurisdiction selected was located in one of the five states addressed in the taxpayer survey. The survey gathered information on the jurisdictions' demographic characteristics and costs associated with administering local sales taxes.
- Publicly Available Data: U.S. Census Bureau, U.S. Business Labor of Statistics ("BLS"), State Tax Administration Agencies, including:
 - Data on the median hourly wage for accountants and auditors in the United States and wage to non-wage labor costs from the BLS were used to prepare estimates of total labor costs;

- Data on jurisdiction population and state and local general sales tax revenue from the Census Bureau and state tax administration agencies were used to prepare estimates of total compliance and administration costs; and
- In addition, data on sales tax collections were used in a regression model to produce estimates of the total administrative costs incurred by locally administering jurisdictions.

3 Description of Taxpayer and Jurisdiction Surveys

3.1 Purpose

The collection of information through the taxpayer and jurisdiction surveys was an important part of the effort to estimate the incremental costs of administering and complying with locally administered sales taxes. The surveys were designed to gain an understanding of the incremental costs of locally administered sales taxes from the perspective of taxpayers operating on a multijurisdictional basis and the costs to local governments of self-administering their taxes.

3.1.1 Considerations in Developing the Surveys

The development of a survey that would meet the objective of measuring the incremental costs of locally administered sales taxes involved considerable interaction with jurisdictions and taxpayers. The survey questions were designed to evoke succinct, accurate, and clear answers by taxpayers and governments to measure costs of complying with and administering locally administered sales taxes, respectively.

The surveys were designed to optimize the time required for respondents to complete the survey and obtain accurate responses. To reduce the survey burden and increase the response rate, we narrowed the scope of questions to minimize the amount of effort required to complete each survey. We consulted with a number of tax professionals regarding the format and questions, including Sally Wallace and Robert Ebel, the academic advisers retained for this project, and survey specialists at Campos, Inc. (“Campos”).

3.2 Taxpayer Survey

The taxpayer survey served as an instrument for collecting information on the level of effort required to comply with local sales taxes as well as the typical level of expense associated with compliance.⁸ The first section gathered demographic information on the respondents, including data on firm structure, geographic location, and industry; firm size, as measured by both the number of full-time employees and gross sales; and state and local sales taxes remitted during the last calendar year. The questions asked respondents to separate the total state and local sales tax remitted into state sales taxes, state-administered local sales taxes, and locally administered sales taxes.

The second section was designed to gather information on the administrative tasks and expenses required of firms to comply with state and local sales taxes. Specifically, it requested data on sales tax filing periods; the number of local jurisdictions in which a business is required to file; expenditures for goods and services related to compliance; and the time associated with specific compliance-related activities. Many questions asked respondents to divide their time spent on compliance-related activities and their compliance-related expenditures among compliance with the state sales taxes, state-administered local taxes, and locally administered taxes.

⁸ See Appendix C for the taxpayer survey.

Statistical analysis of publicly available data was used to create response options for each question in the taxpayer survey. The percentage distributions of firms by number of employees and gross sales were obtained from the Census Bureau's Survey of Business Owners. The percentage distributions of sales taxes paid to state and local jurisdictions were based on data reported by state tax administration agencies.

The survey was first sent to the sample taxpayer population drawn from the national database of businesses obtained from Hoover.⁹ In the initial stage of the survey administration process, the response rate was significantly lower than expected. As a result, we extended our sample through the use of the IPT sales tax membership to increase the survey response rate. Statistically reliable estimates would not have been able to be generated based on the initial survey response. Extending the survey was expected to reach an audience that was more likely to have sales tax filing responsibilities in one or more of the target states as the IPT membership tends to consist primarily of larger, multistate businesses with operations in multiple localities.

Inclusion of the IPT sales tax membership in the sample increased the number of respondents, particularly among large, multistate businesses. This enhanced the reliability of the survey results as they apply to multistate businesses with tax filing obligations in multiple locally administered jurisdictions.

In total, we received 130 survey responses,¹⁰ consisting of both IPT members and non-IPT respondents.¹¹ Not all respondents submitted complete survey responses. We received 93 total responses that provided sufficient information to conduct an economic analysis. Of these 93 responses, 61 were complete surveys in which respondents answered all questions. There were 32 partially complete surveys that contained sufficient information to add meaningfully to the analysis.

Based on our sampling analysis, we determined that the taxpayer responses received were sufficient to generalize the survey results to the taxpayer population for each state. We applied standard statistical techniques in our sampling steps. In addition, although the response rate was lower than expected, we assessed the survey results and deemed the responses to be sufficient to generalize to the general population of multi-state business taxpayers. Specifically, about two-thirds of respondents to the taxpayer survey reported having earned \$5 million or more in gross sales in the previous calendar year, and more than 40.0 percent reported having paid at least \$500,000 in sales tax remitted to state and local jurisdictions in the previous year. We compared these responses to external data on annual tax collections to provide a benchmark of possible non-response bias. Comparative statistics reveal that about 41 percent of businesses in Louisiana pay more than \$500,000 annually in sales taxes¹². In general, we would expect our sample to skew towards larger businesses in terms of gross sales and tax liability because of the multi-state taxpaying nature of the sampling frame. Therefore, we concluded our survey results provide a representative assessment of the compliance costs

⁹ For a discussion of sample selection, refer to section 4.3 below.

¹⁰ The 130 respondents consist of 61 respondents who submitted completed forms and an additional 69 respondents who partially completed the surveys.

¹¹ This number of surveys represents a response rate of less than 1 percent.

¹² Source: Louisiana Department of Revenue. Annual Tax Collection Report. 2013-2014.

borne by large multi-state taxpaying entities, which are responsible for paying the majority of sales and use taxes.

In addition, our results are consistent with prior estimates of relative costs of compliance related to general sales and use taxes. The estimated overall cost to taxpayers per \$1,000 of tax collected was \$28.15, or about 2.82 percent. A study of the cost of retail sales tax compliance in 2003 found that the national average annual state and local retail sales tax compliance cost was 3.09 percent of tax collected for all retailers and ranged from 13.47 percent for small retailers to 2.17 percent for large retailers.¹³ Our result falls within the prior study’s range and is closer to the lower estimate of 2.17 percent likely because our taxpayer sample included predominantly large businesses.

For each jurisdiction, except Alaska, the confidence level is about 80 percent with a precision of 10 percent on a state-by-state basis. This means we can be nearly 80 percent certain that the true population value for any one of these states falls within 10 percent of the values estimated using our sample. For Alaska, the confidence level is 57 percent with the same precision.

Table 5: Taxpayer Responses, Count by State

State	Number of Responses ¹⁴	Confidence Level (at 10 Percent Confidence Interval)
Alabama	40	79.3%
Alaska	15	56.5%
Arizona	39	78.7%
Colorado	41	79.9%
Louisiana	42	80.4%

The taxpayer survey was designed to oversample large taxpaying businesses in the five states, based on an assumption that larger businesses would be more likely than smaller ones to operate in more than one of the states involved and in multiple jurisdictions within a state, thus providing an opportunity to gather more information on the cost of complying with locally administered taxes and in making comparisons across states and jurisdictions. In addition, larger multi-jurisdictional taxpaying entities tend to remit the largest share of taxes to jurisdictions.¹⁵ For example, in Louisiana, taxpayers remitting more than \$100,000 during fiscal year 2014 accounted for only 0.46 percent of taxpayers remitting sales tax in the state, but collectively remitted 41 percent of sales taxes collected.¹⁶ Therefore, we concluded the

¹³ PricewaterhouseCoopers, “Retail Sales Tax Compliance Costs: A National Estimate” Volume 1: Main Report. April 7, 2006.

¹⁴ Respondents to the survey could fill out the survey for more than one state. In total, we received 93 usable (either complete or substantially complete) surveys. Each respondent answered questions for an average of 3.2 of the five states included in the survey. Figures shown represent the count of all responses (respondent-state pairs) for which we received a response.

¹⁵ Appendix F reports in more detail taxpayer data collected during the taxpayer survey.

¹⁶ Louisiana Department of Revenue. Annual Tax Collection Report. 2013-2014. For detail, *see* Table F.4.

results determined from the taxpayer survey and the estimates prepared reflect the compliance costs imposed on the entities that account for the largest share of sales tax collections.

3.3 Jurisdiction Survey

KPMG conducted a parallel survey of local government jurisdictions¹⁷ that administer their own sales taxes. The first section was designed to capture information on the jurisdiction’s geographic location and administrative structure with regard to sales taxes, total sales tax revenue collected in the latest fiscal year, and number of sales tax returns filed in the jurisdiction. Other questions were designed to collect qualitative responses regarding specific attributes of locally administered sales taxes. Specifically, each respondent was asked to rate a series of statements concerning electronic filing, changes in local regulations and requirements, local administration of sales taxes, and taxpayer preferences.

The second section sought information on the cost of administering local sales taxes. Respondents were asked to estimate the time spent on various administrative and compliance-related activities and the number of personnel involved in sales tax administration as well as expenditures for non-labor costs, such as software acquisition, development and maintenance, and third-party administrator services. Table 6 presents the number of jurisdiction responses by state.

Table 6: Jurisdiction Responses by State

State	Response Count
Alabama	3
Alaska	1
Arizona	5
Colorado	11
Louisiana	4
Total	24

The response counts shown in Table 6 were insufficient to make statistically reliable generalizations about administrative costs in individual states based solely on the responses obtained in the jurisdiction survey. The survey level of confidence was well below our desired 90.0 percent level of confidence for the survey at the state level. As a result, KPMG employed a regression-based technique to estimate the average total cost of administration for a self-administering jurisdiction after controlling for state-specific effects. The regression approach is further described in section 6.2 of this Part II below.

¹⁷ See Appendix A for the jurisdiction survey.

4 Sampling Considerations in Taxpayer and Jurisdiction Surveys

4.1 Sampling Methodology

Sampling is the process of selecting units (i.e., locally administered jurisdictions and taxpayers) from a population of interest. By studying each sample, the results can be generalized back to the population from which the units were chosen. The statistical analysis of the sample data that was collected from the surveys provides not only an estimate of the costs of compliance and administration, but also the ability to develop a conclusion on the accuracy, or precision, of the estimate. The precision is commonly stated as a range, or confidence interval, around the estimate. The confidence level achieved depends on the size of the sample taken, the variability of the results among the sample items, and the design of the sample. An important element of statistical sample design is reducing the number of items required to achieve a desired precision. For purposes of these surveys, we aimed for a sampling precision of plus or minus 10 percent at a 90 percent confidence level. This means that the intent was to be 90 percent certain that the actual amount did not differ from the estimated amount by more than 10 percent in either direction.

Sample sizes needed to make objective and statistically valid projections based on the survey findings were developed using generally accepted statistical techniques. The local jurisdiction population included 579 self-administered jurisdictions in Alabama, Alaska, Arizona, Colorado, and Louisiana. The taxpayer population included approximately 695,200 taxpayers in the same five states. To ensure the ability to generalize about each population, we estimated the required minimum stratified random sample sizes for jurisdiction and taxpayer surveys. We assumed an expected response rate of 40 percent for the jurisdiction survey and an expected response rate of 20 percent for the taxpayer survey and re-calculated the minimum sample sizes based on these response rates. The methodology for determining sample sizes for each survey and selecting governments and taxpayers to be surveyed are summarized in Sections 4.2 and 4.3 below.

4.2 Jurisdiction Sampling

A list of jurisdictions that locally administer their sales taxes in the five states was used as the sampling frame for sample selection. The list of self-administering jurisdictions was collected from information obtained from the web site of the state tax administration agency in each state.¹⁸

We determined that a combined sample size of 186 jurisdictions across all five states in the study would be sufficient to obtain the desired sampling precision of 10.0 percent at the 90.0 percent confidence level given the population size of 579 jurisdictions. The sample size of 186 was distributed proportionally to each state based on each state's relative share of the universe of locally administered sales taxes. Using an expected response rate of 40 percent, we then estimated the number of surveys that would need to be administered in each state to obtain 186 combined responses. The calculated inflated sample size of 466 surveys represents

¹⁸ In Alaska, the list of jurisdictions was obtained from Office of the State Assessor of the Alaska Department of Commerce, Community, and Economic Development.

the estimated total number of surveys that would need to be distributed to achieve the desired 186 responses at the expected response rate of 40 percent in each state.

After the name of each local jurisdiction was compiled for each state, a random sample of jurisdictions from the population was selected. The random sampling process began by grouping the jurisdictions into five strata – one for each state. To select the sample jurisdictions in each stratum, the jurisdictions were sorted by their unique identifier. We randomly selected these identifiers. The data set was then sorted by stratum, random number, and unique identifier. For each stratum, the sample was determined by selecting jurisdictions associated with the first randomly selected numbers for each stratum.

Table 7 presents a summary of the population and the sample size for the jurisdiction population, along with the inflated sample size or the number of surveys to be administered to achieve the desired number of responses.

Table 7: Local Jurisdiction Population and Sample Summary

State	Population Size	Sample Size by State	Inflated Sample Size by State
Alabama	332	107	268
Alaska	100	32	80
Arizona	15	5	13
Colorado	69	22	55
Louisiana	63	20	50
Total	579	186	466

4.3 Taxpayer Sampling

This survey used a list of businesses purchased from Hoover, a subsidiary of Dun and Bradstreet, to draw a sample of taxpayers operating in a variety of industries throughout the United States. The individual businesses were screened in proportion to an industry-based percentage breakdown presented below to maximize the likelihood of selecting businesses that remit sales tax to two or more local jurisdictions in the five states.

To construct the industry-based percentage breakdown, we first obtained publicly available data from several states, including Colorado, Texas, and Washington, and tabulated the number of sales tax filings by North American Industrial Classification System (“NAICS”) codes. These filings by industry were assumed to be representative of the relative proportions of sales tax filers in the five states.

Table 8 summarizes the distribution of sales tax filings across industries. The list of businesses was randomly selected from the Hoover database according to these proportions. To randomly select a set number of records from the total available sample universe, Hoover selected the identified number of records based on a primary, randomly assigned unique identifier field in the database. Notably, the retailing industry (NAICS 44-45) accounts for approximately one-third of sales tax filings.

Table 8: Distribution of Sales and Use Tax Filings, by Industry

Industry	Sales and Use Tax Filings, % of Total
Agriculture, forestry, fishing and hunting	0.6%
Mining, quarrying, oil and gas	0.5%
Utilities	0.5%
Construction	7.9%
Manufacturing	7.4%
Wholesale trade	6.9%
Retail trade	32.8%
Transportation and warehousing	0.6%
Information	3.7%
Finance and insurance	1.6%
Real estate and rental and leasing	2.4%
Professional, scientific, and technical services	5.2%
Management of companies and enterprises	3.2%
Administrative and support, etc.	4.1%
Educational services	1.0%
Health care and social assistance	1.5%
Arts, entertainment, and recreation	4.7%
Accommodation and food services	6.6%
Other services (except public administration)	8.7%
Total	100%

For each of the five states, the required sample size by industry was determined by multiplying the percentages in Table 8 by the state’s calculated sample size from Table 9 below. The result was an allocation by industry of the sample size for each state. To ensure that an adequate number of records was purchased, the sample size allocation (i.e., the number of records purchased) was inflated, assuming a lower-than-expected response rate (8.0 percent) and lower-than-expected completion rate (75.0 percent) than used in computing the actual required sample size. The resulting inflated allocation by industry was then aggregated into four industry categories: Goods-Producing Industries; Service-Providing Industries; Retail Trade; and Arts, Entertainment, Recreation, Accommodation, and Food Services.

KPMG purchased records on businesses from the Hoover database in proportion to the population selection matrix shown in Table 9. Within each category, the records purchased were designed to achieve the following distribution: (a) businesses with non-missing annual revenue values of less than \$10 million – 20 percent; (b) businesses with non-missing annual revenue values of between \$10 million and \$50 million – 50 percent; and (c) the remaining 30 percent of businesses with non-missing annual revenue values of greater than \$50 million.

Table 9 summarizes the number of records from each state and industry that were purchased based on the allocation by industry. Individual firms within each cell were selected randomly.

Table 9: Taxpayer Population Selection

	Size	Alabama	Alaska	Arizona	Colorado	Louisiana	Total
Goods-Producing Industries ¹⁹	< \$10MM	66	21	69	84	66	306
	\$10MM-\$50MM	175	57	183	224	175	814
	>\$50MM	87	28	92	112	87	406
Service-Providing Industries ²⁰	< \$10MM	156	51	165	202	156	730
	\$10MM-\$50MM	416	137	440	538	416	1,947
	>\$50MM	208	68	220	269	208	973
Retail Trade ²¹	< \$10MM	332	160	326	504	320	1,642
	\$10MM-\$50MM	273	42	271	253	278	1,117
	>\$50MM	41	8	78	66	48	241
Arts, Entertainment, Recreation, Accommodation, and Food Services ²²	< \$10MM	189	61	108	134	148	640
	\$10MM-\$50MM	27	10	111	111	66	325
	>\$50MM	10	2	16	41	12	81
Total		1,980	645	2,079	2,538	1,980	9,222

In the taxpayer data set, each record (each unique taxpayer identifier) is assigned a unique identification number by Campos, the survey administrator. A random sample of the 9,222 businesses was then selected using a stratified random sampling process. After removing duplicate records, a total of 1,336 businesses from the remaining 9,197 businesses were sampled using a stratified random sampling process. In selecting the sample of taxpayers, the records were first sorted by stratum and unique identifier, and a random number was assigned to each record. For each stratum, the sample was determined by selecting records associated with the first randomly selected observations for each stratum. The inflated sample size for the number of surveys to be distributed was based on an estimated 20 percent response rate. Table 10 summarizes the population, sample size, and inflated sample size by jurisdiction.

¹⁹ Good-Producing Industries comprise NAICS codes 11, 21, 23, and 31-33.

²⁰ Service-Providing Industries comprise NAICS codes 22, 42, 48-49, 51, 5, 53, 54, 55, 56, 61, 62, and 81.

²¹ Retail Trade comprises NAICS codes 44 and 45.

²² Arts, entertainment, recreation, accommodation and food services comprises NAICS codes 71 and 72.

Table 10: Taxpayer Population and Sample Summary

State	Population Size ²³	Sample Size by State	Inflated Sample Size by State
Alabama	1,985	59	295
Alaska	644	52	260
Arizona	2,075	52	260
Colorado	2,528	52	260
Louisiana	1,965	59	295
Total	9,197	274	1,370

4.4 Survey Administration Process

Campos administered the surveys of both taxpayers and jurisdictions and collected encrypted responses submitted via a secured web portal. During the data collection process, no personal information was made available to Campos (e.g., IP addresses or location), and no personal information was included in any data collected by or delivered to KPMG.

For respondents with email addresses, the link to the web-based survey was sent via email, and follow-up emails were sent to those who had not responded after a waiting period. The main web site for the online surveys was located on the Campos portal.²⁴ Respondents were provided instructions on how to reach the survey questionnaire. The respondents were required to enter a valid survey code and a unique user identification number included in the email to respond to the survey.

The initial response rate to the first phase of the survey was significantly lower than expected and would not have led to reliable estimates. As result, the taxpayer survey population was expanded to include IPT members which were considered to be more likely to have sales tax filing responsibilities in multiple localities and multiple states. To offset the low response rate among local jurisdictions, a regression-based analysis was used to estimate jurisdiction administrative costs. (See discussion in Section 6.2 below.)²⁵

²³ This study estimates the population size.

²⁴ Source: <http://www.surveymeter.net/in/survey/survey47/15-126A.asp> for taxpayers and <http://www.surveymeter.net/in/survey/survey47/15-126B.asp> for jurisdictions

²⁵ The initial response rate to the first phase of the survey was significantly lower than expected and would not have led to reliable estimates. As result, the taxpayer survey population was expanded to include IPT members which were considered to be more likely to have sales tax filing responsibilities in multiple localities and multiple states. From the standpoint of achieving a statistically valid estimate, it would have been ideal to have a higher response rate for the broader population from the first phase of the study. Nevertheless, the fact that we were able to acquire more respondents from a group that was more likely to file in multiple jurisdictions enhances the quality of the overall estimate. There is no reason to expect that the results of the second phase of the survey compromise the validity or accuracy of the survey estimates. With respect to the jurisdiction survey, we note that to offset the low response rate among local jurisdictions, a regression-based analysis was used to estimate jurisdiction administrative costs. (For more detail, see discussion in Section 6.2.)

The data collection period for the survey of local jurisdictions began on Friday, October 9, 2015 and concluded on November 13, 2015. The collection period for the survey of taxpayers began on Friday, October 9, 2015 and concluded on January 4, 2016.

5 Survey Results

5.1 Jurisdiction Survey Results

KPMG received 24 complete responses to the jurisdiction survey. Of these, 11 responses were from jurisdictions in Colorado. We received three, four, five, and one responses from Alabama, Arizona, Louisiana, and Alaska, respectively. The responding jurisdictions overwhelmingly administered their general sales taxes independently from the state government and private, third-party tax administrators. Only 4.2 percent (one respondent) indicated they jointly administered sales taxes with the state. Likewise, only 4.2 percent of jurisdictions (one jurisdiction) indicated they shared administration responsibilities with a third-party administrator.

Table 11: Arrangement of Local Sales Tax Administration²⁶

	Self-Administered Local	State-Administered Local	Private Third-Party Administered	Not Applicable
General Sales	100.0%	4.2%	4.2%	0.0%

More than half of all respondents indicated they collected more than \$10,000,000 in sales tax revenue during their most recently completed fiscal year.

Table 12: Sales Tax Revenue Collected in Locally Administered Jurisdictions

Tax Revenue	Jurisdictions
\$10,000 to \$99,999	4.2%
\$100,000 to \$999,999	12.5%
\$1,000,000 to \$9,999,999	25.0%
\$10,000,000+	58.3%

In addition, 13 of 24 responding jurisdictions indicated that taxpayers filed fewer than 50,000 sales tax returns annually either directly or through a third-party. The distribution of jurisdictions surveyed is skewed to the left. Only approximately 20 percent of respondents indicated taxpayers filed more than 150,000 returns annually. In most jurisdictions, businesses file a tax return more than once per year (e.g., monthly or quarterly). Each submission is counted in Table 13.

²⁶ The sum of the responses in this table exceeds 100 percent because respondents were asked to select all entries that applied to their jurisdiction, i.e., if the jurisdiction administered more than one tax and administered them differently, they were asked to select all methods of administration used.

Table 13: Number of Returns Filed by Taxpayers Annually in Locally Administered Jurisdictions

Returns	Jurisdictions
<15,000	7
15,000-49,999	6
50,000-149,999	6
150,000-699,999	4
700,000+	1

When asked about the methods through which returns were filed, the jurisdictions overwhelmingly indicated that paper filing was the most common method used by taxpayers. About 30 percent of the taxpayers filing in the responding jurisdictions used an electronic filing option offered by the locality, the state or a third-party administrator.

Table 14: Method of Filing Returns in Self-Administered Jurisdictions

Filing Method	Taxpayers (Mean)
Electronic system (local)	11.7%
Electronic system (state)	10.8%
Electronic system (3rd party)	4.7%
Paper filing	72.9%

The locally administered jurisdictions, on average, employed 5.3 full-time equivalent (“FTE”) employees for duties related to sales tax administration. Arizona jurisdictions had the highest average number of FTE personnel (12.7) involved in administering local sales taxes.

Table 15: FTE Employees Devoted to Sales Tax Administration in Self-Administered Jurisdictions

	Alabama	Alaska	Arizona	Colorado	Louisiana
Count	3	1	5	11	4
Mean	5.3	0.5	12.7	2.7	4.5
Max.	9.0	0.5	23.0	8.0	11.0
Min.	2.0	0.5	1.0	0.5	0.0

Table 16 presents a breakdown of responses from jurisdictions on the proportion of time devoted to various tax administration activities. The greatest proportion of time was devoted to return processing and taxpayer accounting, representing 47 percent of time spent on administering local sales taxes. The jurisdictions reported spending the smallest proportion of time on addressing taxpayer protests. Jurisdictions reported spending about 10 percent of their time on other activities not explicitly listed in the survey, including locating new businesses,

processing business licenses, preparing reports and reconciliations, training, and general administration.

Table 16: Time Spent by Type of Administrative Activity in Self-Administered Jurisdictions

Activities	Percentage
Providing guidance	13.8%
Return processing	46.9%
Office and field audits	25.1%
Taxpayer protests	4.3%
Other activities	10.0%
Total	100%

Self-administered jurisdictions responding to the survey were also asked to provide responses to statements.²⁷ As shown in Table 17 below, more than half of respondents indicated that they strongly agree with the statement that electronic filing reduces time spent administering local sales taxes. Approximately two-thirds of respondents said they either “strongly agree” or “agree” that changes in the local regulations and requirements regarding sales taxes increase the amount of time it takes to administer the local sales tax.

More than 95 percent of respondents said they either “strongly agree” or “agree” that local administration of sales taxes, in contrast to state administration of local sales taxes, allows for an increased level of taxpayer service and problem resolution. Nearly as large of a percentage of respondents also said they either “strongly agree” or “agree” that local administration of sales taxes allows for greater audit coverage and better compliance. More than three-quarters of respondents indicated they either “agree” or “strongly agree” with the view that taxpayers in their jurisdiction generally prefer local administration of sales taxes.

²⁷ Responses to each question ranged from strongly agree to strongly disagree.

Table 17: Responses to Level-of-Agreement Questions by Self-Administered Jurisdictions

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Electronic filing reduces time spent administering	54.2%	16.7%	16.7%	8.3%	4.2%	100.0%
Changes to regulations increase administrative time	29.2%	33.3%	25.0%	8.3%	4.2%	100.0%
Local admin. of taxes allows improved level of problem resolution	66.7%	29.2%	4.2%	0.0%	0.0%	100.0%
Local admin. of taxes allows greater audit coverage/compliance	66.7%	25.0%	4.2%	4.2%	0.0%	100.0%
Taxpayers prefer local administration	54.2%	20.8%	16.7%	8.3%	0.0%	100.0%

Jurisdictions were also asked to report non-labor costs incurred annually, including third-party administrator service costs, etc. Two-thirds of jurisdictions reported no spending on third-party administrator services. An additional 20.8 percent of respondents indicated spending less than \$5,000 annually on third-party administrator services. One jurisdiction reported spending more than \$500,000 on third-party administrator services. Only one jurisdiction indicated it used a private third-party administrator to administer its general sales tax.

Table 18: Spending on Third-Party Administrator Services

Annual Spend	Percentage
\$0	66.7%
<\$5,000	20.8%
\$50,000 to \$99,999	4.2%
\$100,000 to \$249,999	4.2%
\$250,000 to \$499,999	0.0%
\$500,000 to \$999,999	4.2%
\$1,000,000+	0.0%

There is a wide variation in the reported amount of other non-labor costs. About one-third of the respondents spent less than \$5,000 annually. However, about 16.7 percent of jurisdictions reported spending more than \$100,000 annually on non-labor items.

Table 19: Spending on Non-Labor Costs Exclusive of Third-Party Administrator Services

Annual Spend	Percentage
<\$5,000	29.2%
\$5,000 to \$9,999	8.3%
\$10,000 to \$24,999	20.8%
\$25,000 to \$49,999	8.3%
\$50,000 to \$99,999	12.5%
\$100,000+	16.7%

5.2 Taxpayer Survey Results

The taxpayer survey focused on the cost of complying with state and local sales taxes. We also collected demographic information from the respondents. To best understand the costs of collecting sales taxes across states, the study focused on large taxpayers operating in more than one state. As such, we oversampled large taxpayers for this study. As a result, 49 of the 93 respondents indicated their presence in at least four of the five states under study. The data collected provide the ability to do comparative analytics of costs of sales tax collection in more than one state, and the general profile of respondents to the survey is representative of the multistate taxpaying business population as a whole.

Table 20 presents the form of business organization of respondents in the five states. The majority of respondents to the taxpayer survey are classified as C-corporations. Businesses organized as limited liability companies (LLCs) make up the second largest share of respondents.

Table 20: Form of Business Organization

	Alabama	Alaska	Arizona	Colorado	Louisiana
Corporation	65.3%	66.7%	62.9%	66.2%	61.6%
S-Corporation	6.7%	7.1%	4.3%	5.6%	6.8%
Sole Proprietorship	0.0%	0.0%	0.0%	0.0%	0.0%
Partnership	2.7%	2.4%	1.4%	1.4%	2.7%
LLC	24.0%	23.8%	31.4%	26.8%	28.8%
All Other	1.3%	0.0%	0.0%	0.0%	0.0%

A primary area of interest in this survey is entities remitting tax in multiple jurisdictions, or those that are subject to tax compliance and filing requirements in more than one of the states surveyed. The large majority of survey respondents indicated they operated in more than one of the five states, and over one quarter indicated they filed local sales tax returns in each of the five states (Table 21). Within each of the five states, respondents generally filed a local sales tax return with multiple self-administered local jurisdictions (Table 22). Roughly one-half of the respondents reported filing in ten or more jurisdictions in each state except Alaska.

Table 21: Number of States in which Respondents filed Local Sales Tax Returns

Number of States in which Respondent filed Local Sales Tax Returns	1	2	3	4	5
Number of Respondents	17	16	11	25	24

Table 22: Number of Self-Administered Jurisdictions in which Respondents filed Sales Tax Returns – Percentage Distribution by State

Number of Self-Administered Jurisdictions in which Respondent filed Local Sales Tax Returns	Alabama	Alaska	Arizona	Colorado	Louisiana
1 to 9	34.8%	46.2%	43.1%	35.3%	33.3%
10 +	53.6%	30.7%	46.1%	54.4%	58.0%
None	11.6%	23.1%	10.8%	10.3%	8.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table 23 presents a breakdown of taxpayer survey respondents by industry. It reveals the survey respondents represent a broad distribution across industries. On average, no single industry group accounts for more than a third of respondents. Businesses in retail trade accounted for just over 20 percent of the respondents, and about 30 percent of businesses were in service-providing industries.²⁸

Table 23: Industry Breakdown

	Alabama	Alaska	Arizona	Colorado	Louisiana
Goods-Producing Industries, excluding Manufacturing	10.9%	11.5%	12.4%	12.1%	13.0%
Manufacturing	19.1%	13.5%	18.1%	17.8%	17.6%
Wholesale Trade	18.2%	15.4%	18.1%	17.8%	16.7%
Retail Trade	22.7%	23.1%	21.9%	23.4%	22.2%
Service-Providing Industries, excluding Trade	29.1%	36.5%	29.5%	29.0%	30.6%

Most respondents to the taxpayer survey employed at least 500 employees nationally (Table 24). When considered in the context of the responses to the questions concerning the number of states in which each respondent operates (Table 21) and the volume of gross sales in the previous year (Table 25), this result indicates that most respondents to the survey are large, multistate businesses.

²⁸ Industry categories are based on NAICS industry designations. Respondents were asked to identify the industry classification that best describes their business in the particular state. Multiple selections were permitted.

Table 24: Number of Employees

Employees	All States
No employees	1
1-19 employees	0
20-99 employees	8
100-499 employees	9
500+ employees	75

Table 25 shows that, in each state, businesses with more than \$1 million in gross sales account for about 75 percent or more of respondents. Businesses with gross sales in excess of \$5 million account for at least half, but more typically about two-thirds, of respondents in each state surveyed except Alaska.

Table 25: Gross Sales by State in Previous Calendar Year

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$5,000	5.7%	11.1%	1.5%	7.2%	4.3%
\$5,000 to \$9,999	0.0%	0.0%	3.0%	1.4%	1.4%
\$10,000 to \$49,999	1.4%	0.0%	1.5%	1.4%	2.9%
\$50,000 to \$999,999	7.1%	14.8%	15.2%	13.0%	5.7%
\$1,000,000 to \$4,999,999	20.0%	22.2%	9.1%	14.5%	18.6%
\$5,000,000+	65.7%	51.9%	69.7%	62.3%	67.1%

When measured by the volume of sales tax remitted, respondents are also clearly large businesses. As shown in Table 26, most respondents indicate they remitted at least \$100,000 in sales tax to *state and local jurisdictions* during the most recently completed calendar year. Roughly 35-40 percent of respondents indicate they remitted at least \$500,000 in state and local sales tax to jurisdictions in each state other than Alaska in the prior year.

Table 26: Sales Tax Remitted to State and Local Jurisdictions in Most Recently Completed Calendar Year

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$500	12.9%	37.0%	6.1%	7.2%	7.1%
\$500 to \$999	2.9%	0.0%	3.0%	4.3%	2.9%
\$1,000 to \$4,999	2.9%	14.8%	10.6%	7.2%	4.3%
\$5,000 to \$99,999	27.1%	22.2%	27.3%	21.7%	28.6%
\$100,000 to \$499,999	17.1%	7.4%	9.1%	17.4%	14.3%
\$500,000+	37.1%	18.5%	43.9%	42.0%	42.9%

Table 27 presents a breakdown of the volume of sales tax remitted in the most recent calendar year to *locally administered jurisdictions* in the five states. The most common remittance category is between \$5,000 and \$100,000. The proportion of respondents in this category ranged from 18.5 percent in Alaska to 31.4 percent in Louisiana. In each state other than

Alaska, from 22 to 39 percent of the respondents remitted over \$100,000 in tax to locally administered jurisdictions in the prior year.

Table 27: Sales Taxes Remitted to Self-Administering Jurisdictions in Most Recently Completed Calendar Year

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$500	24.3%	44.4%	22.7%	14.5%	17.1%
\$500 to \$999	2.9%	0.0%	0.0%	4.3%	4.3%
\$1,000 to \$4,999	12.9%	14.8%	10.6%	15.9%	8.6%
\$5,000 to \$99,999	24.3%	18.5%	30.3%	27.5%	31.4%
\$100,000 to \$499,999	18.6%	7.4%	15.2%	13.0%	12.9%
\$500,000+	17.1%	14.8%	21.2%	24.6%	25.7%

The number of FTE personnel dedicated to compliance with sales taxes in the five states did not vary significantly among the respondents surveyed. The average respondent indicated having 1.8 FTE employees dedicated to compliance with sales taxes in these states. The largest share of respondents (52.9 percent) indicated they employed one or fewer FTE employees that were dedicated to sales tax compliance in these five states.

Table 28: Number of FTE Employees Dedicated to Compliance in the Survey States

FTE	Respondents
1	52.9%
2	26.5%
3	13.2%
4	4.4%
5 and above	3.0%

The taxpayer survey asked respondents to indicate time spent on a monthly basis on activities related to compliance in the five states. These questions form the basis for the estimate of labor cost presented in subsequent sections of this report. The survey also asked respondents to identify non-labor costs related to compliance with sales tax requirements. These responses form the basis of the estimate of non-labor cost.

As shown in Table 29, respondents report spending more hours in a typical month on activities related to compliance with sales taxes in locally administered jurisdictions (11.3 hours) than on either state sales taxes (10.3 hours) or local taxes administered by the state (8.9 hours).

Table 29: Mean Hours Spent on Compliance, by Jurisdiction Type

Jurisdiction Type	Hours
State	10.3
State-Administered Local	8.9
Self-administered Local	11.3

On a state-by-state basis, respondents indicate the average number of hours spent per month on compliance is greatest in Alabama. The high average number in Alabama may relate to the larger number of self-administered jurisdictions in the state compared with the other four states surveyed. Except for Arizona, respondents also reported devoting a greater number of hours to complying with self-administered jurisdictions in each state than for either the state sales tax or state-administered local jurisdictions.

Table 30: Mean Hours Spent on Compliance by State and by Jurisdiction Type

	Alabama	Alaska	Arizona	Colorado	Louisiana
State	17.51	n/a	7.04	8.48	7.82
State-Administered Local	12.41	n/a	7.53	8.95	6.63
Self-administered Local	20.05	8.59	7.09	9.48	8.98

Table 31 presents the allocation of time spent monthly on compliance in these states among different compliance-related tasks. Respondents reported spending the greatest proportion of time preparing and filing tax returns. Monitoring changes in laws and regulations and training staff on the changes accounted for the next largest share.

Table 31: Mean Percentage of Time Spent on Compliance by Jurisdiction Type and Activity

	State	State-Administered Local	Self-Administered Local
Monitoring changes to law	14.7%	14.5%	14.6%
Developing/maintaining POS	9.1%	8.4%	8.6%
Preparing & filing returns	45.1%	44.1%	45.3%
Addressing errors & audits	12.3%	11.0%	12.1%
Defending tax protests/appeals	5.4%	4.9%	5.2%
Interacting with 3 rd party preparers	2.7%	2.7%	2.0%
Other	10.7%	14.5%	12.3%
Totals may not add to 100% due to rounding.			

Non-labor costs represent a significant portion of the overall cost of compliance. The survey asked respondents to identify their expenditures in a typical year for specific categories of non-labor costs. Table 32 presents the average level of non-labor expenditures for various compliance-related categories in the five states. Respondents reported spending the most on software acquisition, followed by third-party adviser services.

**Table 32: Average Annual Spending on Non-labor Costs
by Jurisdiction Type and Cost Category**

	State	State- Administered Local	Self- Administered Local
Software Acquisition	\$10,661	\$8,961	\$11,285
Contract Software Development	\$339	\$157	\$157
Co-Sourcing/Out-Sourcing	\$597	\$726	\$2,281
Third party Advisers	\$3,788	\$1,675	\$2,761
Transaction Record Maintenance	\$2,488	\$1,494	\$2,355
Other	\$724	\$774	\$861
Amounts in U.S. Dollars			

6 Economic Analysis

6.1 Cost of Compliance -- Taxpayers

6.1.1 Cost Estimation

The economic costs of complying with state and local sales taxes can differ significantly from the accounting costs of compliance. Our analysis focuses on the economic cost related to complying with state and local sales tax obligations based on the major factors influencing these costs. The cost estimates for taxpayers utilize information from the taxpayer survey questions regarding hours spent on compliance and direct monetary expenditures for non-labor items.

The total cost to taxpayers to comply with state sales taxes, local sales taxes administered by the state, and locally administered sales taxes in Alabama, Alaska, Arizona, Colorado, and Louisiana is estimated at \$790 million annually. The labor cost includes wage and salary expenses and non-wage labor expenses, such as fringe benefits for those employees engaged in sales tax compliance. In addition, labor costs include the cost of third-party advisory services and co-sourcing or out-sourcing of return preparation activities. The non-labor cost consists of spending on software acquisition, contract software development, transaction record maintenance, and other non-labor expenses.

Table 33: Total Taxpayer Cost of Complying with State and Local Sales Taxes by State

State	Labor Cost	Non-Labor Cost	Total Cost
Alabama	\$153,000,000	\$102,000,000	\$255,000,000
Alaska	\$2,000,000	\$1,000,000	\$3,000,000
Arizona	\$67,000,000	\$99,000,000	\$166,000,000
Colorado	\$92,000,000	\$79,000,000	\$171,000,000
Louisiana	\$91,000,000	\$104,000,000	\$195,000,000
Total	\$405,000,000	\$385,000,000	\$790,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

The incremental cost to taxpayers of complying with self-administered local sales taxes amounts to \$190 million per year as shown in Table 34. The incremental labor and non-labor costs are estimated at \$122 million and \$68 million, respectively.

The incremental cost to taxpayers of locally administered sales taxes refers to the difference between the costs they incur in complying with locally administered sales taxes and the costs they would incur if the local taxes were instead administered by the state tax administration agency on behalf of the local governments. The incremental cost is computed as follows:

1. The total cost of compliance by state and by type of jurisdiction -- state, state-administered local, self-administered local – is computed for all respondents in each state based on data provided in the survey. This cost is then divided by amount of tax remitted by the respondents by type of jurisdiction which yields a relative cost of

compliance (measured in terms of per \$1,000 of tax remitted) for the respondents by type of jurisdiction. (See Table 36.)

2. This cost of compliance ratio is then multiplied by the total tax collected by the state for all taxpayers -- again by type of jurisdiction -- which yields the total compliance cost for the state by type of jurisdiction. (See Table 41.)
3. In Alabama, Arizona and Colorado, the state tax administration agency administers certain local sales taxes on behalf of the local governments. The incremental cost in these three states is computed as the difference between (a) the cost of compliance if all self-administered local taxes had been collected at the cost of compliance ratio for state-administered local taxes, and (b) the estimated costs of compliance for self-administered local taxes.
4. For Louisiana (where there are few state-administered local taxes), we used the average of the cost of compliance ratio for state-administered local taxes in Alabama, Arizona and Colorado as a proxy for what the cost would be in Louisiana. The calculation of the incremental cost in Louisiana then proceeded as in the step above for Alabama, Arizona, and Colorado.
5. No incremental cost is computed for Alaska because there is no state sales tax to which the collection of the local tax could be tied.

Table 34: Incremental Taxpayer Cost of Complying with Locally Administered Sales Taxes by State

State	Incremental Compliance Cost – Labor Component	Incremental Compliance Cost – Non-Labor Component	Incremental Compliance Cost to Taxpayers
Alabama	\$51,000,000	\$12,000,000	\$63,000,000
Alaska	\$0	\$0	\$0
Arizona	\$10,000,000	\$14,000,000	\$24,000,000
Colorado	\$28,000,000	\$20,000,000	\$48,000,000
Louisiana	\$33,000,000	\$22,000,000	\$55,000,000
Total	\$122,000,000	\$68,000,000	\$190,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

Table 35 presents the estimated total cost of complying with all state and local sales taxes in the five subject states, measured in terms of thousands of dollars of *total* sales tax collected in each state. The total cost of complying with all state and local sales taxes averages \$28.15 per \$1,000 of *total* sales tax collected in these states. The total cost to taxpayers of complying with state and local sales taxes amounts to about 2.8 percent of the total sales tax collected. Taxpayers report that Alabama has the highest average cost of compliance per dollar of tax collected (\$51.14 per \$1,000, or about 5.1 percent).²⁹

²⁹ As noted above, our results for estimates of taxpayer costs of compliance at the state level are statistically significant with a confidence level of 80 percent and a precision of 10 percent. In addition, our results are consistent with a 2003 study that estimated a national average annual state and local retail sales tax compliance

Table 35: Total Taxpayer Cost of Complying with State and Local Sales Taxes per \$1,000 in Tax Collected

	Alabama	Alaska	Arizona	Colorado	Louisiana	Five States
Total Labor Cost	\$29.25	\$9.26	\$8.22	\$13.49	\$10.36	\$14.31
Total Non-Labor Cost	\$21.89	\$3.67	\$12.29	\$12.13	\$12.57	\$13.85
Total Cost	\$51.14	\$12.93	\$20.52	\$25.62	\$22.93	\$28.15

Table 36 presents the estimated total cost of complying with state and local sales taxes in the five subject states, measured in terms of thousands of dollars of sales tax collected, by state and type of tax. The data indicate that compliance with local taxes, in particular self-administered local taxes, is more costly than for state tax alone.

Table 36: Total Cost of Complying with State and Local Sales Taxes per \$1,000 in Tax Collected, by Type of Tax

	Alabama	Alaska	Arizona	Colorado	Louisiana	Five States
State Tax Only	\$31.70	N/A	\$11.05	\$16.30	\$16.12	\$17.24
State-Administered Local	\$60.30	N/A	\$28.80	\$26.18	N/A	\$26.28
Self-Administered Local	\$99.27	\$12.93	\$42.57	\$45.97	\$35.13	\$51.64
Total Cost (Weighted Average)	\$51.14	\$12.93	\$20.52	\$25.62	\$22.93	\$28.15

6.1.2 Methodology

6.1.2.1 Data

Answers to questions about gross sales and taxes remitted to state and local jurisdictions were used to compute relative measures of the cost of compliance with sales tax reporting requirements. Respondents to the taxpayer survey were asked to estimate the total amount of gross sales or receipts earned in each of the five states that were included in the survey. Similarly, respondents were asked to estimate their state and local sales tax remittances for the most recently completed calendar year within certain specified ranges. For each response, a numeric value was assigned to the response that is equal to the midpoint of the range indicated. For example, if a respondent checked the \$5,000 to \$9,999 range, the response was assigned the numeric value of \$7,499.50, equal to the midpoint of the range. This convention

cost of 3.09 percent of tax collected for all retailers and ranged from 13.47 percent for small retailers to 2.17 percent for large retailers. *See* discussion in Section 3.2 above.

was applied to questions about gross sales, total tax remitted to state and local jurisdictions, and total tax remitted to self-administered jurisdictions only. For respondents that entered the top-coded value (either \$5,000,000+ in the case of gross sales or receipts and \$500,000+ in the case of questions regarding tax remittances), each respondent was assigned a value equal to an average calculated for entities above the top end of the range.³⁰

Taxpayer labor costs were estimated using survey data on: (1) the number of hours spent in a typical month on sales tax compliance; (2) the annual cost of employing third-party tax preparation services; and (3) the annual cost of co-sourcing or outsourcing tax filing and return preparation activities. Non-labor costs were estimated using survey data on: (1) the annual cost of software acquisition; (2) the annual cost of software development; (3) the annual cost of transaction record maintenance; and (4) other annual non-labor costs.³¹

Prior to estimating the overall taxpayer cost of compliance, we undertook an analysis of the reliability of the individual responses gathered from the taxpayer survey. This step addressed the potential that the relatively small number of responses to the survey could mean that any individual response that was substantially different than other responses could have a potentially large impact on any estimate generated from the results. As a result, several types of observations were removed from the analysis before proceeding with the cost estimation exercise for taxpayers.

If a respondent indicated that its software acquisition costs were greater than the total gross sales for the state, we removed that observation. It is unlikely a business could continue operations with operating costs for a single expense category significantly exceeding its gross sales. Observations for which non-labor costs were reported to be several multiples in excess of labor costs were also removed. We reviewed several Census Bureau surveys³² and calculated ratios of non-labor costs to labor costs based on historical data reported to the Census Bureau for a range of industries in goods-producing and service-providing sectors. Based on this review, we excluded observations for which non-labor costs were more than 15 times higher than the labor costs reported by the respondent. The updated data set was then used in estimating the cost of compliance as described in the next section.

³⁰ The average for the gross sales or receipts top code was equal to \$12,220,680. This figure was calculated based on an analysis of data from the Census Bureau's Survey of Business Owners, which reports the number and total gross sales earned by firms with more than \$1,000,000 in gross sales during the year. The average for the total tax collected was \$3,990,997, which was calculated based on an analysis of the average reported by the Louisiana Department of Revenue in its 2015 *Annual Tax Collection Report, 2013-2014* for firms with more than \$100,000 in sales tax liability.

³¹ Because Louisiana administers few sales taxes on behalf of local jurisdictions, KPMG recoded non-zero responses regarding compliance costs for state-administered local jurisdictions as costs related to compliance with locally administered sales taxes in Louisiana.

³² These surveys include the Business Expenses Survey, the Annual Survey of Manufactures, the Annual Retail Trade Survey, the Annual Wholesale Trade Survey, and the Service Annual Survey.

6.1.2.2 Calculations

The data elements used to construct the estimates of the total cost of compliance to taxpayers by jurisdiction type and by state include the responses to the taxpayer survey supplemented by publicly available data from the Census Bureau and Bureau of Labor Statistics (BLS).

The first component of total cost is the labor cost, which is calculated by monetizing the total annual number of hours respondents reported devoting to sales tax compliance. The taxpayer survey asked respondents to provide the number of hours typically devoted to complying with state and local sales taxes on a monthly basis. The resulting total annualized labor hours were multiplied by the median hourly wage for accountants and auditors in the U.S. Data on the U.S. median wage are available as of May 2014.³³ A markup was applied to the product of total annual labor hours and median hourly wage to account for nonwage benefits that are also considered labor costs. This markup, equal to about 42.8 percent, was calculated as the ratio of nonwage labor costs to wage costs reported in the BLS Employment Cost Index.³⁴

$$\begin{aligned} & \text{Labor Cost} \\ & = [(Hours\ per\ Month) \times (12\ months) \times (BLS\ Median\ Wage\ for\ Accountants\ \&\ Auditors)] \\ & \quad \times (Nonwage\ Markup) + (Cost\ of\ cosourcing\ or\ outsourcing\ return\ preparation) \\ & \quad + (Cost\ of\ third\ party\ advisor\ services) \end{aligned}$$

The other major component of compliance costs for taxpayers is non-labor costs. The estimate of non-labor costs is calculated by adding the total amounts provided by respondents for the question concerning non-labor costs by state and by jurisdiction type. Total non-labor cost consists of software acquisition costs, software development costs, transaction record maintenance costs, and other non-labor costs.

$$\begin{aligned} & \text{Non - labor Cost} \\ & = (Cost\ of\ software\ acquisition) + (Cost\ of\ software\ development) \\ & \quad + (Cost\ of\ transaction\ record\ maintenance) + (Other\ Nonlabor\ costs) \end{aligned}$$

Total cost is the sum of labor and non-labor cost:

$$\text{Total Cost} = \text{Labor Cost} + \text{Nonlabor Cost}$$

The above cost categories are calculated by state and jurisdiction type for each respondent (i.e., by state sales tax, state-administered local taxes, and self-administered local taxes). Compliance costs per \$1,000 of sales tax remitted were calculated as total compliance costs by jurisdiction type and state divided by the corresponding amount of sales tax remitted multiplied by 1,000. Respondents provided information about the approximate size of their total sales tax remittances for each of the five states and the state-administered local and self-administered jurisdictions in these states. We calculated labor and non-labor costs of compliance per \$1,000 of sales tax remitted by jurisdiction type and by state. These costs

³³ The median hourly wage in May 2014 is \$31.70 per hour. Source: Bureau of Labor Statistics Occupational Employment Statistics, May 2014 National Occupational Employment and Wage Estimates for the United States (May 2014). Available online at http://www.bls.gov/oes/current/oes_nat.htm#13-0000; accessed January 15, 2016.

³⁴ Bureau of Labor Statistics, Employment Cost Index, September 2015. Accessed online at http://www.bls.gov/news.release/archives/eci_10302015.htm; accessed January 18, 2016.

were used to extrapolate our sample results to estimate total compliance costs for the population.

Respondents to the survey were asked to select a range that included (1) the amount of total sales tax their business remitted in the previous year and (2) the amount of sales tax their businesses remitted to self-administered local jurisdictions only, which is a subset of the total amount of sales tax. For the purposes of this calculation, the mid-point of the indicated range checked by the respondent was assumed to equal the respondent's sales taxes for that year.³⁵

The survey collected information about total (state and local) sales tax and self-administered local taxes. KPMG estimated state-administered local taxes and state sales tax based on the information publicly available and prior experience. When information was not provided, we equally allocated total tax collected to (1) state sales tax, (2) state-administered local sales tax, and (3) self-administered local sales tax in Alabama, Arizona and Colorado. For Louisiana, where there are few state-administered local sales taxes, we equally allocated total tax collected to (1) state sales tax and (2) self-administered sales tax only. For Alaska, all tax reported was considered to be self-administered local tax.

We then computed compliance costs per \$1,000 of tax collected by state and jurisdiction type using sample results for the cost of compliance allocated to the state and jurisdiction type and the sales tax remitted by state and jurisdiction type.

$$\begin{aligned}
 \text{Cost (Per \$1,000 State Tax)} &= (1,000) \times \frac{\text{Cost Allocated to State}}{\text{State Tax}} \\
 \text{Cost (Per \$1,000 State – Administered Local Tax)} \\
 &= (1,000) \times \frac{\text{Cost Allocated to State – Administered Local}}{\text{State – Administered Local Tax}} \\
 \text{Cost (Per \$1,000 Self – Administered Local Tax)} \\
 &= (1,000) \times \frac{\text{Cost Allocated to Self – Administered Local}}{\text{Self – Administered Local Tax}}
 \end{aligned}$$

Finally, the cost estimates were applied to estimates of the amount of self-administered sales taxes collected in each of the five states based on data from the state tax administration agencies in each state and adjusted using data from the Census Bureau and state and local government sources.³⁶ The estimates of the amount of self-administered sales taxes collected in each of the five states are presented in Appendix E, Table E.6. The result is the estimated total cost incurred by taxpayers in complying with self-administered sales taxes in each state.

$$\begin{aligned}
 &\text{Estimated Total Cost} \\
 &= (\text{Relative Cost (Per \$1,000 Total Tax)}) \times (\text{Tax Collections in Self Administered Jurisdictions,} \\
 &\quad \text{in Thousands of U.S. Dollars)}
 \end{aligned}$$

³⁵ See also the treatment of those reporting in the top range as discussed in Section 6.1 above.

³⁶ Census Bureau, Annual Survey of Governments, 2012. Available on the American Fact Finder at: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed January 28, 2016. Other sources included the following jurisdictions in Arizona: Tucson, Sedona, Scottsdale, Prescott, Phoenix, Peoria, Glendale, Flagstaff, Avondale, Apache Junction, Tempe, Nogales, Douglas, Chandler, and Mesa; the Louisiana Department of Revenue; the Colorado Department of Revenue; and the Alabama Department of Revenue.

6.2 Cost of Administration - Jurisdictions

Local governments incur costs in administering local sales taxes. The budgeted or actual costs related specifically to administering local sales taxes are often not identifiable in the local government budget documents that are publicly available. Therefore, the methodology used to develop administrative cost estimates for jurisdictions uses information from the jurisdiction survey to develop a regression model that is used to predict the total cost of administration for each jurisdiction. The survey data used for this analysis consists of the number of personnel employed in the jurisdiction who are responsible for administering sales taxes and the non-labor direct costs incurred by jurisdictions on an annual basis.

The total annual administrative cost to jurisdictions that locally administer sales taxes in Alabama, Alaska, Arizona, Colorado, and Louisiana is estimated at approximately \$78 million, as presented in Table 37. Total cost is estimated as a function of three major components – labor cost, non-labor cost for third-party tax administrators, and non-labor cost for all other goods and services related to administration. The labor cost is the single largest component, at approximately \$60 million per year. The non-labor cost is estimated at approximately \$18 million per year. Details of the methodology used to develop the estimates presented in Table 37 are further described in Section 6.2 below.

Table 37: Costs Incurred by Local Governments in Self-Administering Sales Taxes by State

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$13,000,000	\$2,000,000	\$15,000,000
Alaska	83	\$6,000,000	\$1,000,000	\$7,000,000
Arizona	15	\$17,000,000	\$2,000,000	\$19,000,000
Colorado	70	\$8,000,000	\$3,000,000	\$11,000,000
Louisiana	54	\$16,000,000	\$10,000,000	\$26,000,000
Total	550	\$60,000,000	\$18,000,000	\$78,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

6.2.1 Methodology

The data elements used to construct the estimates of total administrative cost to local governments include the responses to the jurisdiction survey supplemented by publicly available data from the Census Bureau and state tax administration agencies.

Similar to the taxpayer methodology, the first component of total cost is the labor cost, which is calculated by monetizing the total annual number of hours respondents reported devoting to administering sales taxes. The jurisdiction survey asked respondents to provide the number of FTE employees devoted to sales tax administration on an annual basis. The number of FTE employees was converted to a dollar value by monetizing the labor contribution of each FTE.³⁷

³⁷ Specifically, the number of FTEs was multiplied by 1,820 (35 hours per week multiplied by 52 weeks per year) to arrive at the total implied labor hours per annum for each respondent.

The resulting annualized total of labor hours was then multiplied by the median hourly wage for tax examiners, collectors and preparers, and revenue agents in the U.S. Data on U.S. median wages are available as of May 2014.³⁸ A markup was applied to the product of total labor hours per year and median hourly wage to account for nonwage benefits that are also attributable to labor costs. This markup, equal to about 42.8 percent, was calculated as the ratio of nonwage labor costs to wage costs reported in the BLS Employment Cost Index³⁹

$$\text{Labor Cost} = [(FTE) \times (1,820) \times (\text{BLS Median Wage for Revenue Agents})] * (\text{Nonwage Markup})$$

The other major component of compliance costs for jurisdictions includes non-labor costs. The estimate of non-labor costs is calculated by adding the total amounts provided by respondents to the jurisdiction survey for the question concerning third-party expenses and other non-labor expenses.

Respondents to the jurisdiction survey were not asked to break out specific costs as was done on the taxpayer survey. Instead, respondents were asked to provide total non-labor costs excluding third-party tax administrator services.⁴⁰

$$\text{Non labor Cost} = (\text{Cost of third party tax administrator services}) + (\text{Other Nonlabor costs})$$

Total cost is the sum of labor and non-labor cost:

$$\text{Total Cost} = \text{Labor Cost} + \text{Nonlabor Cost}$$

6.2.2 Variables Used in the Regression Model

Due to the low jurisdiction response rate, this study used regression analyses to extrapolate the overall results for total costs to the rest of the jurisdictions with locally administered sales taxes. The specification of a regression model includes decisions on which independent variables to include and which data to use for the regression. The value to estimating alternative specifications of the regression is to determine if the conclusions drawn from the original regression are in any way sensitive to the specification. As such, the analysis relies on identifying variables highly correlated with the total costs, e.g., sales tax collected. These variables were identified as key factors contributing to the variations in the total costs.

In a regression analysis, a dependent variable (total costs) is explained by independent variables (sales tax collected and a state indicator variable). The regression analysis provides a way of quantifying the extent to which the variation in the dependent variable is explained by variation in the independent variables. The relationship between an independent variable and the dependent variables is reflected in the “coefficient” on the independent variables estimated in a regression analysis.

³⁸ The median hourly wage in May 2014 stood at \$21.66 per hour. Source: Bureau of Labor Statistics Occupational Employment Statistics, May 2014 National Occupational Employment and Wage Estimates for the United States (May 2014). Available online at http://www.bls.gov/oes/current/oes_nat.htm#13-0000. Accessed January 15, 2016.

³⁹ Bureau of Labor Statistics, Employment Cost Index, September 2015. Accessed online at http://www.bls.gov/news.release/archives/eci_10302015.htm. Accessed on January 18, 2016.

⁴⁰ The survey provided the description: “Non-labor costs may include cost of purchasing and maintaining software, printing materials, remittance processing, maintaining computer systems, training and education related costs, information technology, etc.).”

The variable predicted by the model (dependent variable) is total cost to the local government of self-administering a sales tax. The explanatory variables used to estimate the total jurisdiction cost include sales tax collected for each jurisdiction and state indicator variables.⁴¹ KPMG obtained publicly available data for the sales tax collected and used the coefficient values estimated in the regression models above to calculate the overall cost of administration for locally administered sales taxes.

The regression model also takes into account the potentially differing state-specific effects for each explanatory variable on the total cost of locally administered sales taxes. After exploring numerous specifications, we selected the regression equations described below in Tables 38 and 39 (regressions for total costs, dependent and independent variables) for the following reasons:

- The regression model succinctly captures the objective of investigating and quantifying the economic and statistical relationship between highly correlated variables used to estimate the overall costs;
- The state level effects demonstrate the differences across each of the five states; and
- The variables are consistent with economic intuition and statistically significant at 0.05 level.

Equations below were estimated using two linear regression models:

$$(1) \text{ Total Cost}^{42} = \beta_1 \text{Sales Tax Collected} + \beta_2 \text{State 1 x Sales Tax Collected} + \beta_3 \text{State 2 x Sales Tax Collected} + \beta_4 \text{State 3 x Sales Tax Collected} + \beta_5 \text{State 4 x Sales Tax Collected} + \text{error}$$

$$(2) \text{ Total Cost}^{43} = \beta_1 \text{Sales Tax Collected} + \text{error}$$

In addition, we tested the model for the presence of multicollinearity and heteroskedasticity.⁴⁴ We did not find any significant multicollinearity. We corrected for heteroskedasticity using a number of approaches. Specifically, we performed a robust regression using iteratively re-weighted least squares. Finally, the regression model does not use a constant as costs are expected to be zero if no locally administered sales taxes are collected in certain jurisdictions.

⁴¹ We identified other variables that are highly correlated with the total administrative cost variable. However, sales tax collected reported the highest, positive, and statistically significant correlation coefficient. Therefore, to improve reliability of the results, KPMG selected sales tax collected to be used in the regression analysis as the predictor variable.

⁴² The first linear regression model is estimated for all jurisdictions except for one jurisdiction in Alabama (estimated over 23 observations). The one jurisdiction in Alabama was excluded because its low-cost structure was deemed to be an outlier and likely to be unrepresentative of the majority of other Alabama jurisdictions.

⁴³ The second linear regression model is estimated for only the Alaskan jurisdiction by leveraging comparable jurisdictions within the top quartile of jurisdictions ranked by total cost per dollar of sales tax revenue collected (estimated over six observations).

⁴⁴ Multicollinearity refers to the case where one predictor variable is linearly dependent upon (can be expressed as a linear function of) another variable. Multicollinearity can make it difficult to estimate the impact on the dependent variable of a one-unit change in an explanatory variable. Heteroskedasticity refers to the case where different observations under study have different dispersions. Heteroskedasticity can cause estimates of the standard errors of the coefficients in a linear model to be biased.

Furthermore, we explored the use of no constant graphically and determined that the decision to exclude the constant was reasonable since the data collected during the survey exhibits a trend line through the origin.

The jurisdiction survey data was used to perform the regression analysis. The relationship between Total Cost from the survey and Sales Tax Collected is reflected in a parameter estimate that is not state specific. This parameter corresponds to the amount in Total Cost resulting from a \$1,000 change in Sales Tax Collected. In addition, state-specific indicator variables multiplied by Sales Tax Collected value reflect the marginal difference in the effect of sales tax collected on total costs across these states.

6.2.3 Summary of Regression Results

This regression model was used as the basis for determining total costs reported in Tables 38 and 39 below. The total cost of self-administering jurisdictions is determined by applying the model parameter estimates to sales taxes collected for all of the remaining jurisdictions in Table 39. More detail on how the regression model estimates were used to develop the estimates is provided in Appendix E.

The calculated total administrative costs for all self-administered jurisdictions is summarized in Table E.1 in the Appendix (reproduced as Table 39 below). The detailed results of the regression models are summarized in Table E.2 and Table E.3 in the Appendix.

Locally administered sales tax collected in the five states has a positive effect on total cost, which means that an increase in the amount of sales tax collected is associated with a higher cost of administration. These estimated relationships are significant at the 95th percentile. Specifically, the intervals imply that if the survey is repeated by selecting 23 jurisdictions in the five states at random, we would find the estimated relationship between total administrative costs and total sales tax collected falling within the relatively narrow intervals in 95 out of 100 cases. These lower and upper confidence bounds are reported in Table E.4 and Table E.5 in the Appendix.

Supplementary data related to the regression also appear in Appendix E. Table E.6 in the Appendix summarizes the publicly available data for the sales tax collected for locally administered sales taxes KPMG used to produce its estimate of total administrative costs. Table E.7 contains the underlying sales tax collected and administrative cost data for each of the observations used in the regression.

Table 38: Regression Model Results – Estimated Cost per \$1,000 of Self-Administered Local Sales Tax Collected by State

State	Sample	Cost Per \$1,000 of Self-Administered Local Sales Tax Collected	95% Interval, Lower Bound	95% Interval, Upper Bound
Alabama	2	\$9.49	\$8.91	\$10.06
Alaska ⁴⁵	1	\$30.30	\$25.36	\$35.24
Arizona	5	\$10.85	\$8.01	\$13.68
Colorado	11	\$4.89	\$3.54	\$6.24
Louisiana	4	\$6.30	\$2.66	\$9.94
Total	23	\$7.64	\$5.08	\$10.20

Table 38 presents the regression coefficient estimates corresponding to the total cost to jurisdictions of administering locally administered sales taxes in the five states measured in terms of thousands of dollars of self-administered local sales tax collected. In Alabama, for example, the regression results suggest that an increase of \$1,000 in local sales tax collected would be associated with \$9.49 in additional administrative costs. The total cost of administering all self-administered local sales taxes averages \$7.64 per \$1,000 of tax collected in all five states. The total cost to local governments of administering locally administered sales taxes amounts to about 0.76 percent of the tax collected.

Table 39: Costs Incurred by Local Governments in Self-Administering Sales Taxes by State

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$13,000,000	\$2,000,000	\$15,000,000
Alaska	83	\$6,000,000	\$1,000,000	\$7,000,000
Arizona	15	\$17,000,000	\$2,000,000	\$19,000,000
Colorado	70	\$8,000,000	\$3,000,000	\$11,000,000
Louisiana	54	\$16,000,000	\$10,000,000	\$26,000,000
Total	550	\$60,000,000	\$18,000,000	\$78,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

We calculated total administrative costs for all self-administered jurisdictions by multiplying the estimated coefficients shown in Table 38 by the total amount of local sales tax collected by self-administered jurisdictions in each state.⁴⁶ Table 39 summarizes the estimate of the

⁴⁵ As stated above, we estimated the second linear regression model for Alaska by leveraging comparable jurisdictions, resulting in significantly lower (normalized) overall total cost of complying with state and local sales taxes.

⁴⁶ The total cost estimates in Table 39 incorporate the actual cost reported by the 24 respondents to the survey. KPMG used the predicted values to calculate total cost for the local self-administered jurisdictions not included in the survey.

total cost of self-administration of local sales taxes in each state. The total cost is separated into labor and non-labor cost categories.

For the 23 jurisdictions included in the regression, the linear model performs relatively well in explaining the variation in total cost of administration based on the variation in local self-administered sales taxes collected. The results of our analysis indicate that the total administrative cost for self-administering jurisdictions in the five states was \$78 million in 2014. The confidence intervals around regression coefficients quantify the level of uncertainty in the estimates. Specifically, the intervals imply that if the survey is repeated 100 times by selecting 23 jurisdictions in the five states at random, then we would find that the estimate of total administrative cost for all five states falls between \$51 million and \$107 million in 95 of the cases.

6.3 Conclusion

KPMG developed a methodology to measure the incremental costs of complying with and administering locally administered sales taxes in Alabama, Alaska, Arizona, Colorado, and Louisiana. In the analysis, we quantified the factors that contribute to the overall costs associated with various aspects of sales tax compliance and administration. We collected data by conducting surveys of taxpayers and local jurisdictions that administer their own sales taxes in each of the five states. Collecting costs at the taxpayer and the government levels allowed us to gather important information on how taxpayers and jurisdictions choose to allocate their time and money in complying with and administering sales taxes. Because this analysis relies on actual hours and direct expenses that taxpayers report having incurred based on the manner in which the local sales tax is administered, this analysis presents a clear picture of the relative costs incurred across several different models of local sales tax administration.

The cost of taxpayer compliance was analyzed and estimated for state sales taxes, state-administered local sales taxes, and locally administered sales taxes. This analysis enabled development of an estimate of the incremental costs incurred by taxpayers in complying with locally administered sales taxes and an identification of the factors that help explain differences in the incremental cost of compliance.

The next several tables show: (1) the estimated compliance costs by state (Table 40); (2) the estimated incremental compliance costs incurred by taxpayers in complying with self-administered local sales taxes by state (Table 41);⁴⁷ and (3) the cost to jurisdictions of self-administering local sales taxes (Table 42).

The total cost of taxpayer compliance consists of the cost of complying with state sales taxes administered by the state, state-administered local sales taxes, and locally administered sales taxes. The total cost of compliance in Alabama, Alaska, Arizona, Colorado, and Louisiana is estimated at \$790 million. The estimated cost of compliance with the self-administered sales taxes in the five states is \$499 million. By comparison, the estimated cost of compliance with the state sales taxes is \$231 million. Compliance with local sales taxes administered by the state on behalf of local jurisdictions is estimated to cost taxpayers \$60 million.

⁴⁷ As noted in Section 3.2, the results in Tables 40 and 41 are statistically significant at the state level with a confidence of 80 percent with 10 percent precision. As such, they can provide useful inferences about taxpayer compliance costs by state.

**Table 40: Total Taxpayer Cost of Complying with State and Local Sales Taxes
by Type of Jurisdiction and by State**

State	State Tax	State-Administered Local	Self-Administered Local	Total
Alabama	\$74,000,000	\$19,000,000	\$162,000,000	\$255,000,000
Alaska ⁴⁸	\$0	\$0	\$3,000,000	\$3,000,000
Arizona	\$71,000,000	\$20,000,000	\$75,000,000	\$166,000,000
Colorado	\$39,000,000	\$21,000,000	\$111,000,000	\$171,000,000
Louisiana ⁴⁹	\$47,000,000	\$0	\$148,000,000	\$195,000,000
Total	\$231,000,000	\$60,000,000	\$499,000,000	\$790,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

The incremental cost of compliance, measured as the difference between the costs incurred by taxpayers to comply with locally administered taxes compared to compliance if such local taxes were administered by the state tax administration agency, totals an estimated \$190 million.

**Table 41: Incremental Taxpayer Cost of Complying with
Locally Administered Sales Taxes by State**

State	Incremental Compliance Cost – Labor Component	Incremental Compliance Cost – Non-labor Component	Total Incremental Compliance Cost to Taxpayers
Alabama	\$51,000,000	\$12,000,000	\$63,000,000
Alaska	\$0	\$0	\$0
Arizona	\$10,000,000	\$14,000,000	\$24,000,000
Colorado	\$28,000,000	\$20,000,000	\$48,000,000
Louisiana	\$33,000,000	\$22,000,000	\$55,000,000
Total	\$122,000,000	\$68,000,000	\$190,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

The costs incurred by local governments in self-administering their sales taxes is estimated to total \$78.0 million, of which the single largest component is \$60.0 million in labor costs. The remaining \$18.0 million of administrative costs consists of non-labor costs, including spending on third-party administration services and other non-labor expenses. The greatest estimated administrative costs are in Louisiana.

⁴⁸ Alaska neither imposes a state general sales tax nor administers local sales taxes on behalf of local jurisdictions.

⁴⁹ Louisiana does not administer local sales taxes on behalf of local jurisdictions.

**Table 42: Costs Incurred by Local Governments
in Self-Administering Sales Taxes by State**

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$13,000,000	\$2,000,000	\$15,000,000
Alaska	83	\$6,000,000	\$1,000,000	\$7,000,000
Arizona	15	\$17,000,000	\$2,000,000	\$19,000,000
Colorado	70	\$8,000,000	\$3,000,000	\$11,000,000
Louisiana	54	\$16,000,000	\$10,000,000	\$26,000,000
Total	550	\$60,000,000	\$18,000,000	\$78,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

7 Appendices

- A: Jurisdiction Survey Instrument
- B: Jurisdiction Survey: Statistical Summaries by Question
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A Jurisdiction Survey Instrument

A.1 Q1_1 How are each of the following taxes administered in your jurisdiction?

Please select all that apply (i.e., if a tax is jointly administered by two or more of the following entities, please select both entities).

[1] Locally administered means a unit of local government is responsible for tax collection (as opposed to the state government), receipt of tax returns, and provision of rules and guidance.
 [2] State administered refer to taxes that are administered by a state agency and not by a local jurisdiction.
 [3] Private third party administered refers to taxes that are administered by a third party under a contractual arrangement with the local jurisdiction.
 [4] General sales/use tax: A transaction tax that is generally applied to retail sales of tangible personal property and enumerated services that take place in or are sourced to the jurisdiction. It includes local Transaction Privilege Taxes in Arizona and the Alabama Rentals Tax.
 [5] Lodging tax: A transaction tax imposed on the temporary rental of lodging facilities or services in a jurisdiction.

	Locally administered [1]	State-administered [2]	Private third party Administered [3]	Not applicable
General sales/use tax [4]				
Lodging tax [5]				

A.2 Q1_2: Approximately what was the total transaction tax revenue in your jurisdiction for the most recent fiscal year?

Please report the "combined" locally administered [1] and private third party administered [2] tax revenue for ALL tax types (general sales/use tax [3] and lodging tax [4]).

< \$10,000
\$10,000 to \$99,999
\$100,000 to \$999,999
\$1,000,000 to \$9,999,999
\$10,000,000+

[1] Locally administered means a unit of local government is responsible for tax collection (as opposed to the state government), receipt of tax returns, and provision of rules and guidance.
 [2] Private third party administered refers to taxes that are administered by a third party under a contractual arrangement with the local jurisdiction.
 [3] General sales/use tax: A transaction tax that is generally applied to retail sales of tangible personal property and enumerated services that take place in or are sourced to the jurisdiction. It includes local Transaction Privilege Taxes in Arizona and the Alabama Rentals Tax.
 [4] Lodging tax: A transaction tax imposed on the temporary rental of lodging facilities or services in a jurisdiction.

A.3 Q1_3: Approximately what was the total number of transaction tax returns filed in your jurisdiction directly or otherwise for the most recent fiscal year?

Please report the "combined" locally administered [1] and private third party administered [2] tax returns for ALL tax types (general sales/use tax [3] and lodging tax [4]).

Additionally, please consider each filing individually. For example, if a taxpayer files a return each month for a year, please count this as 12 filings towards the total below.

< 15,000
15,000-49,999
50,000-149,999
150,000-699,999
700,000+

[1] Locally administered means a unit of local government is responsible for tax collection (as opposed to the state government), receipt of tax returns, and provision of rules and guidance.
 [2] Private third party administered refers to taxes that are administered by a third party under a contractual arrangement with the local jurisdiction.
 [3] General sales/use tax: A transaction tax that is generally applied to retail sales of tangible personal property and enumerated services that take place in or are sourced to the jurisdiction. It includes local Transaction Privilege Taxes in Arizona and the Alabama Rentals Tax.
 [4] Lodging tax: A transaction tax imposed on the temporary rental of lodging facilities or services in a jurisdiction.

A.4 Q1_4: What percentage of taxpayers filing a transaction tax return in your jurisdiction uses each of the filing methods below?

Please make sure your entered responses total 100%.

	% of Tax Returns Filed
Electronic filing system maintained by local jurisdiction	
Electronic filing system maintained by State	
Electronic filing system maintained by third party	
Paper filing system	

A.5 Q1_5: Please rate the following statements on a scale of 1 to 5 with 1 being strongly agree and 5 being strongly disagree.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Electronic filing reduces the amount of time spent administering local transaction taxes.					
Changes in the local regulations and requirements regarding transaction taxes increase the amount of time it takes to administer the local transaction tax.					
Local administration of transaction taxes, as opposed to state administration of local transaction taxes, allows a higher level of taxpayer service and problem resolution.					
Local administration of transaction taxes, as opposed to state administration of local transaction taxes, allows for greater audit coverage and better compliance.					
Taxpayers in this jurisdiction prefer local administration.					

A.6 Q2_1: Approximately what percentage of transaction taxpayers file at the following frequencies?

Please make sure your entered responses total 100%.

	% of Transaction Filed
Monthly	
Quarterly	
Annually	
Other	

A.7 Q2_2: Approximately how many fulltime equivalent (FTE) [1] personnel are involved in administering local transaction taxes in your jurisdiction on an annual basis?

Do NOT count any FTEs employed by third party administrators.

	FTE Personnel
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[1] A fulltime equivalent (FTE) employee is the combined equivalent of one employee working fulltime (40 hours per work week). For example, if your jurisdiction has two people that spend approximately 20 hours per week, on average, to administer local transaction taxes, then the number of FTEs is one (20 hours per week x 2 people ÷ 40 person hours per week).

A.8 Q2_3: Approximately what percentage of the time spent on administering local transaction taxes in your jurisdiction is spent on each of the following activities?

Please make sure your entered responses total 100%.

A.9 Q2_4: Approximately how much does your jurisdiction spend annually on third party tax administrator services for local transaction tax administration?

\$0
Less than \$50,000
\$50,000 to \$99,999
\$100,000 to \$249,999
\$250,000 to \$499,999
\$500,000 to \$999,999
\$1,000,000 or more

A.10 Q2_5: Approximately how much does your jurisdiction spend annually on non-labor costs, other than for third party administration, to administer local transaction taxes?

(Non-labor costs may include cost of purchasing and maintaining software, printing materials, remittance processing, maintaining computer systems, training and education related costs, information technology, etc.)

\$0
Less than \$5,000
\$5,000 to \$9,999
\$10,000 to \$24,999
\$25,000 to \$49,999
\$50,000 to \$99,999
\$100,000 or more

A.11 Q2_6: What are the examples of other non-labor costs incurred by your department as they relate to administering local transaction taxes?

Purchasing and maintaining software
Printing materials
Maintaining computer systems
Training and education related costs
Information technology
Other (please specify)

B Jurisdiction Survey: Statistical Summaries by Question

B.1 Q1_1: How are each of the following taxes administered in your jurisdiction?

Please select all that apply (i.e., if a tax is jointly administered by two or more of the following entities, please select both entities).

	Locally administered [1]	State-administered [2]	Private third party Administered [3]	Not applicable
General sales/use tax [4]	24	1	1	0
Lodging tax [5]	21	3	0	2

B.2 Q1_2: Approximately what was the total transaction tax revenue in your jurisdiction for the most recent fiscal year?

Please report the "combined" locally administered [1] and private third party administered [2] tax revenue for ALL tax types (general sales/use tax [3] and lodging tax [4]).

	Count
< \$10,000	0
\$10,000 to \$99,999	1
\$100,000 to \$999,999	3
\$1,000,000 to \$9,999,999	6
\$10,000,000+	14

B.3 Q1_3: Approximately what was the total number of transaction tax returns filed in your jurisdiction directly or otherwise for the most recent fiscal year?

Please report the "combined" locally administered [1] and private third party administered [2] tax returns for ALL tax types (general sales/use tax [3] and lodging tax [4]).

Additionally, please consider each filing individually. For example, if a taxpayer files a return each month for a year, please count this as 12 filings towards the total below.

	Count
< 15,000	7
15,000-49,999	6
50,000-149,999	6
150,000-699,999	4
700,000+	1

B.4 Q1_4: What percentage of taxpayers filing a transaction tax return in your jurisdiction uses each of the filing methods below?

Please make sure your entered responses total 100%.

	% of Tax Returns Filed (Mean)
Electronic filing system maintained by local jurisdiction	11.7%
Electronic filing system maintained by State	10.8%
Electronic filing system maintained by third party	4.7%
Paper filing system	72.9%
Total	100.0%

B.5 Q1_5: Please rate the following statements on a scale of 1 to 5 with 1 being strongly agree and 5 being strongly disagree.

	Mean				
	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
Electronic filing reduces the amount of time spent administering local transaction taxes.	54.2%	16.7%	16.7%	8.3%	4.2%
Changes in the local regulations and requirements regarding transaction taxes increase the amount of time it takes to administer the local transaction tax.	29.2%	33.3%	25.0%	8.3%	4.2%
Local administration of transaction taxes, as opposed to state administration of local transaction taxes, allows a higher level of taxpayer service and problem resolution.	66.7%	29.2%	4.2%	0.0%	0.0%
Local administration of transaction taxes, as opposed to state administration of local transaction taxes, allows for greater audit coverage and better compliance.	66.7%	25.0%	4.2%	4.2%	0.0%
Taxpayers in this jurisdiction prefer local administration.	54.2%	20.8%	16.7%	8.3%	0.0%

B.6 Q2_1: Approximately what percentage of transaction taxpayers file at the following frequencies?

	Mean
Monthly	64.1%
Quarterly	19.9%
Annually	10.4%
Other	5.6%

B.7 Q2_2: Approximately how many full-time equivalent (FTE) personnel are involved in administering local transaction taxes in your jurisdiction on an annual basis?

N	24
Sum	128.0
Mean	5.3
Standard Deviation	6.6
Min	0.0
Max	23

B.8 Q2_3: Approximately what percentage of the time spent on administering local transaction taxes in your jurisdiction is spent on each of the following activities?

	Mean
Providing taxpayer guidance, including forms development [...]	13.8%
Return processing, remittance processing [...]	46.9%
Office and field audit and compliance activities [...]	25.1%
Taxpayer protests, appeals and litigation	4.3%
Other activity/activities	10.0%

B.9 Q2_4: Approximately how much does your jurisdiction spend annually on third party tax administrator services for local transaction tax administration?

\$0	66.7%
Less than \$50,000	20.8%
\$50,000 to \$99,999	4.2%
\$100,000 to \$249,999	4.2%
\$250,000 to \$499,999	0.0%
\$500,000 to \$999,999	4.2%
\$1,000,000 or more	0.0%
Total	100.0%

B.10 Q2_5: Approximately how much does your jurisdiction spend annually on non-labor costs, other than for third party administration, to administer local transaction taxes?

(Non-labor costs may include cost of purchasing and maintaining software, printing materials, remittance processing, maintaining computer systems, training and education related costs, information technology, etc.)

\$0	4.2%
Less than \$5,000	29.2%
\$5,000 to \$9,999	8.3%
\$10,000 to \$24,999	20.8%
\$25,000 to \$49,999	8.3%
\$50,000 to \$99,999	12.5%
\$100,000 or more	16.7%
Total	100.0%

B.11 Q2_6: What are the examples of other non-labor costs incurred by your department as they relate to administering local transaction taxes?

	Count
Purchasing and maintaining software	19
Printing materials	20
Maintaining computer systems	19
Training and education related costs	14
Information technology	13
Other (please specify)	8

C Taxpayer Survey Instrument

C.1 Q2_5: In each of the states below, which, if any, of the following best describes the form of organization of your business in that state?

	Alabama	Alaska	Arizona	Colorado	Louisiana
C-Corp					
S-Corp					
Sole Proprietorship					
Partnership					
LLC					
Nonprofit					
Other					
Don't Know/Not sure					
Not located in this state					

C.2 Q1_1_O: What “other” description do you feel best describes the form of organization of your business in the following states?

	“Other” Form of Organization
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.3 Q1_1B: For which, if any, of the following states are you able to answer local tax related questions about your business in that state? *Please select all that apply.*

<input type="checkbox"/>	Alabama
<input type="checkbox"/>	Alaska
<input type="checkbox"/>	Arizona
<input type="checkbox"/>	Colorado
<input type="checkbox"/>	Louisiana
<input type="checkbox"/>	None of the above

C.4 Q1_2: Which of the following best describes the industry or industries in which your business operates? *Please select all that apply.*

<input type="checkbox"/>	Agriculture, Forestry, Fishing and Hunting
<input type="checkbox"/>	Mining, Quarrying, and Oil and Gas Extraction
<input type="checkbox"/>	Utilities
<input type="checkbox"/>	Construction
<input type="checkbox"/>	Manufacturing, including refining
<input type="checkbox"/>	Wholesale Trade
<input type="checkbox"/>	Retail Trade
<input type="checkbox"/>	Transportation and Warehousing
<input type="checkbox"/>	Information
<input type="checkbox"/>	Finance, Insurance, Real estate, and Rental Leasing
<input type="checkbox"/>	Administrative Support, Management, Professional, Scientific, and Technical Services
<input type="checkbox"/>	Education, Health Care, and Social Assistance
<input type="checkbox"/>	Arts, Entertainment, and Recreation
<input type="checkbox"/>	Accommodation, and Food Services
<input type="checkbox"/>	Other Services (please specify) :

C.5 Q1_3: As of the end of the most recently completed calendar year, approximately how many employees worked at your company nationally?

<input type="checkbox"/>	No employees (0)
<input type="checkbox"/>	1-4 employees
<input type="checkbox"/>	5-9 employees
<input type="checkbox"/>	10-19 employees
<input type="checkbox"/>	20-99 employees
<input type="checkbox"/>	100-499 employees
<input type="checkbox"/>	500+ employees

C.6 Q1_4: For each of the following states, approximately what was the total amount of gross sales or receipts [1] during your most recently completed calendar year?

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$5,000					
\$5,000 to \$9,999					
\$10,000 to \$49,999					
\$50,000 to \$999,999					
\$1,000,000 to \$4,999,999					
\$5,000,000+					

C.7 Q1_5: In each of the states below, which, if any, of the following transaction taxes [1] does your business file a return or remit taxes for in that state? *Please select all that apply.*

	Alabama	Alaska	Arizona	Colorado	Louisiana
File State transaction taxes [2]					
File Local transaction taxes administered by the state [3]					
File Self-administered local transaction taxes directly to one or more self-administered local jurisdictions [4]					
None of the above					

[1] For the purpose of this survey, a transaction tax includes a **sales/use tax** or a **lodging tax**.
 [2] A state transaction tax means a state sales/use tax or lodging tax remitted to a state government agency responsible for tax collection, receipt of tax returns, and provision of rules and guidance.
 [3] A local transaction tax administered by the state means a local sales/use or lodging tax that is levied by and collected on behalf of the local government, but is administered by an agency of state government in that returns, reports and remittances are filed with the state agency.
 [4] A self-administered local transaction tax means a transaction tax for which an individual unit of local government (as opposed to an agency of the state government) is responsible for certain aspects of administering the tax, including the receipt and processing of tax returns and remittances filed by taxpayers. **If the local government contracts with a third-party entity OTHER THAN the state government for any or all of these functions, please consider it a locally administered tax.**

C.8 Q1_6: For each of the following states, approximately what was the total amount of transaction tax [1] remitted to all state and local jurisdictions during your most recently completed calendar year?

Please provide your best estimate or judgment if the information is not easily accessible.

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$500					
\$500 to \$999					
\$1,000 to \$4,999					
\$5,000 to \$9,999					
\$100,000 to \$499,999					
\$500,000+					

[1] The total amount of transaction tax is the "sum total" of your **sales/use taxes** and **lodging taxes** combined.

C.9 Q1_7: For each of the following states, approximately what was the total amount of transaction tax [1] remitted to self-administering local jurisdictions or to third-party entities administering the tax on their behalf [2] during your most recently completed calendar year?

	Alabama	Alaska	Arizona	Colorado	Louisiana
Less than \$500					
\$500 to \$999					
\$1,000 to \$4,999					
\$5,000 to \$9,999					
\$100,000 to \$499,999					
\$500,000+					

[1] The total amount of transaction tax is the "sum total" of your **sales/use taxes** and **lodging taxes** combined.

[2] A self-administered local transaction tax means a transaction tax for which an individual unit of local government (as opposed to an agency of the state government) is responsible for certain aspects of administering the tax, including the receipt and processing of tax returns and remittances filed by taxpayers. **If the local government contracts with a third-party entity OTHER THAN the state government for any or all of these functions, please consider it a locally administered tax.**

C.10 Q2_1: For each of the following states, what is your usual filing period for local transaction tax returns in that state? (For the purposes of this survey, a transaction tax includes a sales/use tax or a lodging tax.)

	Alabama	Alaska	Arizona	Colorado	Louisiana
Monthly					
Quarterly					
Semiannually					
Annually					
Other					

C.11 Q2_2: For each of the following states, how many self-administered local jurisdictions (including those in which local returns are filed with a third-party entity administering the local tax) do you file a local transaction tax return for in that state?

(For the purposes of this survey, a transaction tax includes a sales/use tax or a lodging tax.)

Do not include those local jurisdictions which are administered by the state in the total you select for each state below.

	Alabama	Alaska	Arizona	Colorado	Louisiana
None					
1 to 9					
10 to 19					
20 to 29					
30 to 39					
40 to 49					
50 to 99					
100+					

C.12 Q2_3: For each of the following states, please select the electronic filing system used to file self-administered local transaction tax returns in that state?

(For the purposes of this survey, a transaction tax includes a sales/use tax or a lodging tax.)

	Alabama	Alaska	Arizona	Colorado	Louisiana
State System					
Local jurisdiction system					
Third- party system					
Other					

C.13 Q2_4: For the state, approximately how many hours does it take, during a typical monthly period for your business to comply with each of the following transaction taxes [1]?

	Hours Spent Per Month Complying
State transaction taxes [2]	_____hours
Local transactions taxes administered by the state [3]	_____hours
Self-administered local transaction taxes [4]	_____hours

C.14 Q2_5: Approximately how many full-time equivalent (FTE) [1] personnel are engaged on an annual basis in complying with local transaction taxes? (For the purposes of this survey, a transaction tax includes a sales/use tax or a lodging tax.)

	FTE Personnel
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[1] A full-time equivalent (FTE) employee is the combined equivalent of one employee working full-time (40 hours per work week).

- For example, if your company has two people that spend approximately 20 hours per week, on average, to prepare and submit local tax returns, then the number of FTEs is one (20 hours per week x 2 people ÷ 40 person-hours per week).

C.15 Q2_6: For the state, approximately what fraction of the time spent in a typical month filing transaction tax [1] returns with state and local jurisdictions do you spend on the following tasks?

	State transaction taxes [2]	Local transactions taxes administered by the state [3]	Self-administered local transaction taxes [4]
Monitoring changes to law	%	%	%
Developing/maintaining POS	%	%	%
Preparing & filing returns	%	%	%
Addressing errors & audits	%	%	%
Defending tax protests/appeals	%	%	%
Interacting with 3rd party preparers	%	%	%
Other	%	%	%

C.16 Q2_6_O1: What "other" tasks do you spend a fraction of your monthly time on when filing *STATE transaction tax* returns in the following states?

	“Other” Tasks Requiring Time
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.17 Q2_6_O2: What "other" tasks do you spend a fraction of your monthly time on when filing *STATE-administered LOCAL transaction tax* returns in the following states?

	"Other" Tasks Requiring Time
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.18 Q2_6_O3: What "other" tasks do you spend a fraction of your monthly time on when filing *Self-administered LOCAL transaction tax* returns in the following states?

	"Other" Tasks Requiring Time
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.19 Q2_7: For the state, approximately what are the average costs incurred by your business for each of the following items insofar as they are used for transaction tax [1] compliance?

Please provide your best estimate or judgment if the information is not easily accessible.

	State transaction taxes [2]	Local transactions taxes administered by the state [3]	Self-administered local transaction taxes [4]
Software acquisition			
Contract software development			
Co-sourcing or outsourcing costs for return remittance, preparation and filing			
Expenses for third-party advisor services (e.g., tax specialist, legal or accounting services)			
Transaction record maintenance			
Other			

C.20 Q2_7_01: What "other" items does your business pay for annually that are used for STATE transaction tax compliance in the following states?

	"Other" Items Used for Compliance
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.21 Q2_7_02: What "other" items does your business pay for annually that are used for STATE administered LOCAL transaction tax compliance in the following states?

	"Other" Items Used for Compliance
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

C.22 Q2_7_03: What "other" items does your business pay for annually that are used for SELF administered LOCAL transaction tax compliance in the following states?

	"Other" Items Used for Compliance
Alabama	
Alaska	
Arizona	
Colorado	
Louisiana	

D Taxpayer Survey: Statistical Summaries by Question

D.1 Form of Organization

Q1-1: In each of the states below, which, if any of the following *best* describes the form of organization of *your business in that state*?

D.1.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
C-Corp	48	52.2	52.2
LLC	18	19.6	71.7
Not located in this state	18	19.6	91.3
Other	1	1.1	92.4
Partnership	2	2.2	94.6
S-Corp	5	5.4	100.0
Total	92	100.0	

D.1.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
C-Corp	27	29.4	29.4
LLC	10	10.9	40.2
Not located in this state	50	54.4	94.6
Not sure	1	1.1	95.7
Partnership	1	1.1	96.7
S-Corp	3	3.3	100.0
Total	92	100.0	

D.1.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
C-Corp	43	46.7	46.7
LLC	22	23.9	70.7
Not located in this state	23	25.0	95.7
Partnership	1	1.1	96.7
S-Corp	3	3.3	100.0
Total	92	100.0	

D.1.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
C-Corp	46	50.0	50.0
LLC	19	20.7	70.7
Not located in this state	22	23.9	94.6
Partnership	1	1.1	95.7
S-Corp	4	4.4	100.0
Total	92	100.0	

D.1.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
C-Corp	44	47.8	47.8
LLC	21	22.8	70.7
Not located in this state	20	21.7	92.4
Partnership	2	2.2	94.6
S-Corp	5	5.4	100.0
Total	92	100.0	

D.2 Industry Classification

Q1-2: Which of the following best describes the industry or industries in which your business operates?

Industry	Frequency	Percent
Agriculture	1	0.7
Mining	6	4.4
Utilities	4	2.9
Construction	8	5.8
Manufacturing	24	17.4
Wholesale trade	24	17.4
Retail trade	32	23.2
Trans. & warehousing	8	5.8
Information	2	1.5
FIRE	6	4.4
Admin., mgmt. & prof. services	5	3.6
Educ./health services	4	2.9
Arts & entertainment	1	0.7
Accommodation & food	4	2.9
Other	9	6.5
Total	138 ⁵⁰	100.0

⁵⁰ Total exceeds number of respondents because respondents could select more than one industry to apply to their business or entity.

D.3 Number of Employees

Q1-3: As of the end of the most recently completed calendar year, approximately how many employees worked at your company nationally?

	Frequency	Percent	Cumulative Percentage
No employees	1	1.1	1.1
20-99 employees	8	8.7	9.8
100-499 employees	9	9.8	19.6
500+ employees	74	80.4	100.0
Total	92	100.0	

D.4 Q1-4: For each of the following states, approximately what was the total amount of gross sales or receipts during your most recently completed Calendar year?

D.4.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
Less than \$5,000	4	5.8	5.8
\$10,000 to \$49,999	1	1.5	7.3
\$50,000 to \$999,999	5	7.3	14.5
\$1,000,000 to \$4,999,999	14	20.3	34.8
\$5,000,000+	45	65.2	100.0
Total	69	100.0	

D.4.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
Less than \$5,000	3	11.5	11.5
\$50,000 to \$999,999	4	15.4	26.9
\$1,000,000 to \$4,999,999	6	23.1	50.0
\$5,000,000+	13	50.0	100.0
Total	26	100.0	

D.4.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
Less than \$5,000	1	1.5	1.5
\$5,000 to \$9,999	2	3.1	4.6
\$10,000 to \$49,999	1	1.5	6.2
\$50,000 to \$999,999	10	15.4	21.5
\$1,000,000 to \$4,999,999	6	9.2	30.8
\$5,000,000+	45	69.2	100.0
Total	65	100.0	

D.4.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
Less than \$5,000	5	7.4	7.4
\$5,000 to \$9,999	1	1.5	8.8
\$10,000 to \$49,999	1	1.5	10.3
\$50,000 to \$999,999	9	13.2	23.5
\$1,000,000 to \$4,999,999	10	14.7	38.2
\$5,000,000+	42	61.8	100.0
Total	68	100.0	

D.4.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
Less than \$5,000	3	4.4	4.4
\$5,000 to \$9,999	1	1.5	5.8
\$10,000 to \$49,999	2	2.9	8.7
\$50,000 to \$999,999	4	5.8	14.5
\$1,000,000 to \$4,999,999	13	18.8	33.3
\$5,000,000+	46	66.7	100.0
Total	69	100.0	

D.5 Sales Tax Remitted

Q1-6: For each of the following states, approximately what was the total amount of transaction tax remitted to all state and local jurisdictions during your most recently completed calendar year?

D.5.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
Less than \$500	9	13.0	13.0
\$500 to \$999	2	2.9	15.9
\$1,000 to \$4,999	2	2.9	18.8
\$5,000 to \$99,999	19	27.5	46.4
\$100,000 to \$499,999	12	17.4	63.8
\$500,000+	25	36.2	100.0
Total	69	100.0	

D.5.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
Less than \$500	10	38.5	38.5
\$1,000 to \$4,999	4	15.4	53.8
\$5,000 to \$99,999	6	23.1	76.9
\$100,000 to \$499,999	2	7.7	84.6
\$500,000+	4	15.4	100.0
Total	26	100.0	

D.5.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
Less than \$500	4	6.2	6.2
\$500 to \$999	2	3.1	9.2
\$1,000 to \$4,999	7	10.8	20.0
\$5,000 to \$99,999	18	27.7	47.7
\$100,000 to \$499,999	6	9.2	56.9
\$500,000+	28	43.1	100.0
Total	65	100.0	

D.5.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
Less than \$500	5	7.4	7.4
\$500 to \$999	3	4.4	11.8
\$1,000 to \$4,999	5	7.4	19.1
\$5,000 to \$99,999	15	22.1	41.2
\$100,000 to \$499,999	12	17.7	58.8
\$500,000+	28	41.2	100.0
Total	68	100.0	

D.5.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
Less than \$500	5	7.3	7.3
\$500 to \$999	2	2.9	10.2
\$1,000 to \$4,999	3	4.4	14.5
\$5,000 to \$99,999	20	29.0	43.5
\$100,000 to \$499,999	10	14.5	58.0
\$500,000+	29	42.0	100.0
Total	69	100.0	

D.6 Q1-7: For each of the following states, approximately what was the total amount of transaction tax remitted to self-administering local jurisdictions or to third-party entities administering the tax on their behalf during your most recently completed calendar year?

D.6.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
Less than \$500	17	24.6	24.6
\$500 to \$999	2	2.9	27.5
\$1,000 to \$4,999	9	13.0	40.6
\$5,000 to \$99,999	17	24.6	65.2
\$100,000 to \$499,999	12	17.4	82.6
\$500,000+	12	17.4	100.0
Total	69	100.0	

D.6.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
Less than \$500	12	46.2	46.2
\$1,000 to \$4,999	4	15.4	61.5
\$5,000 to \$99,999	5	19.2	80.8
\$100,000 to \$499,999	1	3.9	84.6
\$500,000+	4	15.4	100.0
Total	26	100.0	

D.6.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
Less than \$500	15	23.1	23.1
\$1,000 to \$4,999	7	10.8	33.9
\$5,000 to \$99,999	20	30.8	64.6
\$100,000 to \$499,999	9	13.9	78.5
\$500,000+	14	21.5	100.0
Total	65	100.0	

D.6.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
Less than \$500	10	14.7	14.7
\$500 to \$999	3	4.4	19.1
\$1,000 to \$4,999	11	16.2	35.3
\$5,000 to \$99,999	19	27.9	63.2
\$100,000 to \$499,999	8	11.8	75.0
\$500,000+	17	25.0	100.0
Total	68	100.0	

D.6.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
Less than \$500	12	17.4	17.4
\$500 to \$999	3	4.4	21.7
\$1,000 to \$4,999	6	8.7	30.4
\$5,000 to \$99,999	22	31.9	62.3
\$100,000 to \$499,999	8	11.6	73.9
\$500,000+	18	26.1	100.0
Total	69	100.0	

D.7 Q2-1: For each of the following states, what is your usual filing period for local transaction tax returns in that state?

D.7.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
Annually	1	1.5	1.5
Monthly	61	88.4	89.9
Other	2	2.9	92.8
Quarterly	5	7.3	100.0
Total	69	100.0	

D.7.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
Annually	2	7.7	7.7
Monthly	17	65.4	73.1
Other	3	11.5	84.6
Quarterly	4	15.4	100.0
Total	26	100.0	

D.7.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
Annually	2	3.1	3.1
Monthly	61	93.9	96.9
Quarterly	2	3.1	100.0
Total	65	100.0	

D.7.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
Annually	4	5.9	5.9
Monthly	56	82.4	88.2
Quarterly	8	11.8	100.0
Total	68	100.0	

D.7.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
Annually	1	1.5	1.5
Monthly	57	82.6	84.1
Other	1	1.5	85.5
Quarterly	9	13.0	98.6
Semiannually	1	1.5	100.0
Total	69	100.0	

D.8 Q2-2: For each of the following states, how many self-administered local jurisdictions (including those in which local returns are filed with a third-party entity administering the local tax) do you file a local transaction tax return for in that state?

D.8.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
1 to 9	24	34.8	34.8
10 to 19	10	14.5	49.3
20 to 29	4	5.8	55.1
30 to 39	5	7.3	62.3
40 to 49	4	5.8	68.1
50 to 99	8	11.6	79.7
100+	6	8.7	88.4
None	8	11.6	100.0
Total	69	100.0	

D.8.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
1 to 9	12	46.2	46.2
10 to 19	2	7.7	53.8
20 to 29	2	7.7	61.5
30 to 39	1	3.9	65.4
50 to 99	3	11.5	76.9
None	6	23.1	100.0
Total	26	100.0	

D.8.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
1 to 9	28	43.1	43.1
10 to 19	17	26.2	69.2
20 to 29	5	7.7	76.9
30 to 39	2	3.1	80.0
40 to 49	1	1.5	81.5
50 to 99	3	4.6	86.2
100+	2	3.1	89.2
None	7	10.8	100.0
Total	65	100.0	

D.8.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
1 to 9	24	35.3	35.3
10 to 19	11	16.2	51.5
20 to 29	8	11.8	63.2
30 to 39	3	4.4	67.6
40 to 49	1	1.5	69.1
50 to 99	8	11.8	80.9
100+	6	8.8	89.7
None	7	10.3	100.0
Total	68	100.0	

D.8.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
1 to 9	23	33.3	33.3
10 to 19	12	17.4	50.7
20 to 29	4	5.8	56.5
30 to 39	3	4.4	60.9
40 to 49	1	1.5	62.3
50 to 99	14	20.3	82.6
100+	6	8.7	91.3
None	6	8.7	100.0
Total	69	100.0	

D.9 Q2-3: For each of the following states, please select the electronic filing system used to file self-administered local transaction tax returns in that state?

D.9.1 Alabama

Alabama	Frequency	Percent	Cumulative Percentage
Local Jurisdiction System	10	14.5	14.5
Other	5	7.3	21.7
State system	38	55.1	76.8
Third party system	16	23.2	100.0
Total	69	100.0	

D.9.2 Alaska

Alaska	Frequency	Percent	Cumulative Percentage
Local Jurisdiction System	10	38.5	38.5
Other	11	42.3	80.8
State system	5	19.2	100.0
Third party system	0	-	100.0
Total	26	100.0	

D.9.3 Arizona

Arizona	Frequency	Percent	Cumulative Percentage
Local Jurisdiction System	29	44.6	44.6
Other	10	15.4	60.0
State system	17	26.2	86.2
Third party system	9	13.9	100.0
Total	65	100.0	

D.9.4 Colorado

Colorado	Frequency	Percent	Cumulative Percentage
Local Jurisdiction System	29	42.7	42.7
Other	12	17.7	60.3
State system	18	26.5	86.8
Third party system	9	13.2	100.0
Total	68	100.0	

D.9.5 Louisiana

Louisiana	Frequency	Percent	Cumulative Percentage
Local Jurisdiction System	21	30.4	30.4
Other	7	10.1	40.6
State system	22	31.9	72.5
Third party system	19	27.5	100.0
Total	69	100.0	

D.10 Q2-4: For the state of [State], approximately how many hours does it take, during a typical monthly period for your business to comply with each of the following transaction taxes?

D.10.1 Alabama

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Alabama State	64.0	1,075.0	16.8	39.9	3.0	0	200.0
Alabama Local	64.0	718.7	11.2	22.6	3.0	0	100.0
Alabama Self	64.0	1,200.2	18.8	51.8	3.5	0	350.0

D.10.2 Alaska

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Alaska State	0	0	.	.	.	.	.
Alaska Local	0	0	.	.	.	.	.
Alaska Self	23.0	162.5	7.1	16.5	2.0	0	80.0

D.10.3 Arizona

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Arizona State	57.0	340.2	6.0	14.6	2.0	0	100.0
Arizona Local	57.0	353.0	6.2	15.2	2.0	0	100.0
Arizona Self	57.0	343.0	6.0	10.4	3.0	0	50.0

D.10.4 Colorado

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Colorado State	61.0	453.2	7.4	15.8	2.0	0	100.0
Colorado Local	61.0	455.1	7.5	16.0	2.0	0	100.0
Colorado Self	61.0	514.5	8.4	11.9	4.0	0	50.0

D.10.5 Louisiana

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Louisiana State	62.0	419.9	6.8	15.5	2.0	0	100.0
Louisiana Local	62.0	313.1	5.1	14.3	1.0	0	100.0
Louisiana Self	62.0	482.5	7.8	12.8	3.0	0	50.0

D.11 Q2-5: Approximately how many full-time equivalent (FTE) personnel are engaged on an annual basis in complying with local transaction taxes?

# of FTEs	N	Percent	Cumulative Percent
0.01	1	1.2	1.2
0.1	1	1.2	2.41
0.1875	1	1.2	3.61
0.25	4	4.82	8.43
0.5	4	4.82	13.25
1	36	43.37	56.63
1.5	2	2.41	59.04
2	17	20.48	79.52
2.5	1	1.2	80.72
3	9	10.84	91.57
4	4	4.82	96.39
9	1	1.2	97.59
10	2	2.41	100

D.12 Q2-6: For the state of [State], approximately what fraction of the time spent in a typical month filing transaction tax returns with state and local jurisdictions do you spend on the following tasks?

D.12.1 Alabama

D.12.1.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	51	694.0	13.6	14.6	10.0	2.0	75.0
Developing/maintaining POS	51	489.0	9.6	9.5	5.0	0	45.0
Preparing & filing returns	51	2,271.0	44.5	26.1	48.0	0	95.0
Addressing errors & audits	51	810.0	15.9	13.9	10.0	0	50.0
Defending tax protests/appeals	51	308.0	6.0	7.2	5.0	0	29.0
Interacting with 3rd party preparers	51	119.0	2.3	5.0	-	0	25.0
Other	51	409.0	8.0	18.1	-	0	84.0

D.12.1.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	51	760.7	14.9	19.7	10.0	0	100.0
Developing/maintaining POS	51	442.3	8.7	9.6	5.0	0	45.0
Preparing & filing returns	51	2,379.0	46.6	28.0	50.0	0	100.0
Addressing errors & audits	51	640.3	12.6	12.5	10.0	0	50.0
Defending tax protests/appeals	51	261.7	5.1	6.5	2.0	0	27.0
Interacting with 3rd party preparers	51	133.0	2.6	7.6	-	0	49.0
Other	51	483.0	9.5	22.0	-	0	90.0

D.12.1.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	51	720.0	14.1	20.0	10.0	0	100.0
Developing/maintaining POS	51	417.0	8.2	8.8	5.0	0	45.0
Preparing & filing returns	51	2,260.0	44.3	29.4	50.0	0	100.0
Addressing errors & audits	51	589.0	11.5	11.6	10.0	0	50.0
Defending tax protests/appeals	51	222.0	4.4	6.0	2.0	0	21.0
Interacting with 3rd party preparers	51	101.0	2.0	5.0	-	0	29.0
Other	51	791.0	15.5	30.5	-	0	100.0

D.12.2 Alaska

D.12.2.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	19	293.5	15.4	23.5	5.0	0	75.0
Developing/maintaining POS	19	176.0	9.3	9.0	10.0	0	35.0
Preparing & filing returns	19	769.0	40.5	33.8	45.0	0	100.0
Addressing errors & audits	19	184.5	9.7	11.9	5.0	0	40.0
Defending tax protests/appeals	19	73.0	3.8	6.7	-	0	20.0
Interacting with 3rd party preparers	19	111.0	5.8	14.8	-	0	60.0
Other	19	293.0	15.4	29.5	-	0	99.0

D.12.3 Arizona**D.12.3.1 State**

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	47	707.0	15.0	20.1	10.0	1.0	100.0
Developing/maintaining POS	47	428.0	9.1	8.6	5.0	0	35.0
Preparing & filing returns	47	2,319.0	49.3	29.2	50.0	0	99.0
Addressing errors & audits	47	514.0	10.9	9.3	10.0	0	40.0
Defending tax protests/appeals	47	260.0	5.5	7.0	5.0	0	30.0
Interacting with 3rd party preparers	47	129.0	2.7	5.8	-	0	25.0
Other	47	343.0	7.3	20.6	-	0	97.0

D.12.3.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	47	732.5	15.6	21.5	10.0	0	100.0
Developing/maintaining POS	47	374.5	8.0	8.5	5.0	0	35.0
Preparing & filing returns	47	2,312.0	49.2	31.0	50.0	0	99.0
Addressing errors & audits	47	478.5	10.2	9.1	10.0	0	40.0
Defending tax protests/appeals	47	221.5	4.7	6.1	2.0	0	20.0
Interacting with 3rd party preparers	47	148.0	3.1	7.0	-	0	30.0
Other	47	433.0	9.2	24.6	-	0	100.0

D.12.3.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	47	811.3	17.3	24.6	10.0	0	100.0
Developing/maintaining POS	47	391.3	8.3	8.0	5.0	0	35.0
Preparing & filing returns	47	2,264.2	48.2	31.3	50.0	0	100.0
Addressing errors & audits	47	517.8	11.0	11.1	10.0	0	46.8
Defending tax protests/appeals	47	225.5	4.8	6.4	2.0	0	25.0
Interacting with 3rd party preparers	47	113.0	2.4	5.2	0	0	25.0
Other	47	377.0	8.0	20.8	0	0	97.0

D.12.4 Colorado

D.12.4.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	739.0	14.2	17.8	10.0	0	75.0
Developing/maintaining POS	52	503.0	9.7	10.6	5.0	0	50.0
Preparing & filing returns	52	2,518.0	48.4	28.5	50.0	0	100.0
Addressing errors & audits	52	636.0	12.2	11.5	10.0	0	50.0
Defending tax protests/appeals	52	307.0	5.9	7.3	5.0	0	30.0
Interacting with 3rd party preparers	52	106.0	2.0	5.0	-	0	24.0
Other	52	391.0	7.5	19.4	-	0	91.0

D.12.4.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	729.3	14.0	19.7	10.0	0	100.0
Developing/maintaining POS	52	490.3	9.4	11.0	5.0	0	50.0
Preparing & filing returns	52	2,396.7	46.1	30.9	45.0	0	98.0
Addressing errors & audits	52	597.3	11.5	12.4	10.0	0	58.3
Defending tax protests/appeals	52	262.3	5.0	6.2	4.0	0	20.0
Interacting with 3rd party preparers	52	124.0	2.4	6.1	0	0	29.0
Other	52	600.0	11.5	27.6	0	0	100.0

D.12.4.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	696.3	13.4	19.8	5.0	0	100.0
Developing/maintaining POS	52	507.3	9.8	11.6	5.0	0	60.0
Preparing & filing returns	52	2,529.1	48.6	30.7	50.0	0	100.0
Addressing errors & audits	52	704.9	13.6	14.1	10.0	0	60.0
Defending tax protests/appeals	52	297.5	5.7	7.2	4.0	0	25.0
Interacting with 3rd party preparers	52	89.0	1.7	3.8	0	0	15.0
Other	52	376.0	7.2	19.2	0	0	91.0

D.12.5 Louisiana
D.12.5.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	886.0	17.0	21.6	10.0	1.0	100.0
Developing/maintaining POS	52	461.0	8.9	9.1	5.5	0	40.0
Preparing & filing returns	52	2,305.0	44.3	28.8	47.5	0	97.0
Addressing errors & audits	52	642.0	12.3	11.2	10.0	0	50.0
Defending tax protests/appeals	52	271.0	5.2	5.9	5.0	0	20.0
Interacting with 3rd party preparers	52	152.0	2.9	7.6	0	0	40.0
Other	52	483.0	9.3	22.6	0	0	95.0

D.12.5.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	762.0	14.7	20.6	10.0	0	100.0
Developing/maintaining POS	52	415.0	8.0	9.5	5.0	0	40.0
Preparing & filing returns	52	1,998.0	38.4	30.6	35.0	0	100.0
Addressing errors & audits	52	541.0	10.4	11.6	8.0	0	50.0
Defending tax protests/appeals	52	263.0	5.1	6.3	4.0	0	25.0
Interacting with 3rd party preparers	52	152.0	2.9	7.3	0	0	40.0
Other	52	1,069.0	20.6	37.1	0	0	100.0

D.12.5.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Monitoring changes to law	52	772.7	14.9	20.4	10.0	0	100.0
Developing/maintaining POS	52	451.6	8.7	9.3	5.0	0	40.0
Preparing & filing returns	52	2,269.7	43.6	29.2	40.0	0	97.0
Addressing errors & audits	52	684.7	13.2	13.1	10.0	0	50.0
Defending tax protests/appeals	52	321.3	6.2	8.4	5.0	0	45.0
Interacting with 3rd party preparers	52	117.0	2.3	5.1	0	0	25.0
Other	52	583.0	11.2	26.1	0	0	100.0

D.13 Q2-7: For the state of [State], approximately what are the average costs incurred by your business for each of the following items insofar as they are used for transaction tax compliance?

D.13.1 Alabama

D.13.1.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	617,200.0	14,027.3	22,792.0	2,000.0	0	100,000.0
Contract Software development	44	25,750.0	585.2	1,739.6	0	0	10,000.0
Co-sourcing	44	51,496.0	1,170.4	4,831.2	0	0	30,000.0
Third Party Advisor	44	232,669.0	5,287.9	16,623.0	0	0	100,000.0
Transaction record maintenance	44	97,915.0	2,225.3	6,033.4	100.0	0	30,000.0
Other	44	62,650.0	1,423.9	8,207.0	0	0	54,350.0

D.13.1.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	400,908.0	9,111.5	18,049.0	875.0	0	75,000.0
Contract Software development	44	10,750.0	244.3	857.9	0	0	5,000.0
Co-sourcing	44	85,180.0	1,935.9	9,205.1	0	0	60,000.0
Third Party Advisor	44	73,200.0	1,663.6	5,142.7	0	0	25,000.0
Transaction record maintenance	44	74,465.0	1,692.4	5,426.1	0	0	30,000.0
Other	44	62,950.0	1,430.7	8,206.8	0	0	54,350.0

D.13.1.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	484,352.0	11,008.0	25,315.1	750.0	0	140,000.0
Contract Software development	44	11,703.0	266.0	864.7	0	0	5,000.0
Co-sourcing	44	156,264.0	3,551.5	11,899.3	0	0	70,000.0
Third Party Advisor	44	99,100.0	2,252.3	5,627.6	0	0	25,000.0
Transaction record maintenance	44	83,148.0	1,889.7	5,530.7	0	0	30,000.0
Other	44	62,950.0	1,430.7	8,206.8	0	0	54,350.0

D.13.2 Alaska

D.13.2.1 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	14	23,710.0	1,693.6	3,208.8	55.0	0	10,000.0
Contract Software development	14	8,000.0	571.4	2,138.1	0	0	8,000.0
Co-sourcing	14	27,151.0	1,939.4	6,639.4	0	0	24,960.0
Third Party Advisor	14	10,000.0	714.3	1,815.7	0	0	5,000.0
Transaction record maintenance	14	11,822.0	844.4	1,610.5	56.0	0	6,000.0
Other	14	2,296.0	164.0	531.5	0	0	2,000.0

D.13.3 Arizona
D.13.3.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	40	362,700.0	9,067.5	17,386.7	1,000.0	0	75,000.0
Contract Software development	40	9,800.0	245.0	656.3	0	0	3,000.0
Co-sourcing	40	10,288.0	257.2	611.4	0	0	2,304.0
Third Party Advisor	40	130,069.0	3,251.7	7,862.7	0	0	35,000.0
Transaction record maintenance	40	91,159.0	2,279.0	6,424.4	0	0	30,000.0
Other	40	60,100.0	1,502.5	8,606.7	0	0	54,350.0

D.13.3.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	40	353,310.0	8,832.8	18,833.2	625.0	0	75,000.0
Contract Software development	40	5,100.0	127.5	448.9	0	0	2,500.0
Co-sourcing	40	4,244.0	106.1	261.8	0	0	1,000.0
Third Party Advisor	40	75,000.0	1,875.0	5,359.8	0	0	25,000.0
Transaction record maintenance	40	72,224.0	1,805.6	5,689.6	0	0	30,000.0
Other	40	59,900.0	1,497.5	8,607.5	0	0	54,350.0

D.13.3.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	40	442,691.0	11,067.3	26,742.0	926.0	0	140,000.0
Contract Software development	40	5,053.0	126.3	449.1	0	0	2,500.0
Co-sourcing	40	53,480.0	1,337.0	4,746.4	0	0	21,216.0
Third Party Advisor	40	92,000.0	2,300.0	5,945.0	0	0	25,000.0
Transaction record maintenance	40	85,757.0	2,143.9	5,904.5	0	0	30,000.0
Other	40	60,890.0	1,522.3	8,605.8	0	0	54,350.0

D.13.4 Colorado
D.13.4.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	43	519,955.0	12,092.0	24,483.3	2,000.0	0	125,000.0
Contract Software development	43	15,700.0	365.1	1,304.4	0	0	8,000.0
Co-sourcing	43	17,788.0	413.7	1,585.8	0	0	10,000.0
Third Party Advisor	43	175,569.0	4,083.0	8,525.0	0	0	35,000.0
Transaction record maintenance	43	72,330.0	1,682.1	5,553.3	0	0	30,000.0
Other	43	10,701.0	248.9	1,064.9	0	0	5,000.0

D.13.4.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	43	473,500.0	11,011.6	25,534.1	1,000.0	0	125,000.0
Contract Software development	43	6,500.0	151.2	506.3	0	0	2,500.0
Co-sourcing	43	37,584.0	874.0	4,614.5	0	0	30,000.0
Third Party Advisor	43	103,500.0	2,407.0	5,988.3	0	0	25,000.0
Transaction record maintenance	43	65,820.0	1,530.7	5,432.6	0	0	30,000.0
Other	43	10,501.0	244.2	1,065.5	0	0	5,000.0

D.13.4.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	43	565,862.0	13,159.6	30,965.4	852.0	0	140,000.0
Contract Software development	43	5,553.0	129.1	488.8	0	0	2,500.0
Co-sourcing	43	88,048.0	2,047.6	6,400.6	0	0	31,232.0
Third Party Advisor	43	174,000.0	4,046.5	12,772.7	0	0	75,000.0
Transaction record maintenance	43	83,073.0	1,931.9	5,580.0	0	0	30,000.0
Other	43	20,121.0	467.9	2,393.4	0	0	15,000.0

D.13.5 Louisiana
D.13.5.1 State

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	555,180.0	12,617.7	27,840.7	1,000.0	0	125,000.0
Contract Software development	44	6,700.0	152.3	509.7	0	0	2,500.0
Co-sourcing	44	9,466.0	215.1	648.3	0	0	3,000.0
Third Party Advisor	44	190,069.0	4,319.8	15,673.2	0	0	100,000.0
Transaction record maintenance	44	211,667.0	4,810.6	17,256.2	0	0	100,000.0
Other	44	5,280.0	120.0	753.5	0	0	5,000.0

D.13.5.2 State-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	376,050.0	8,546.6	24,814.5	0	0	125,000.0
Contract Software development	44	5,500.0	125.0	483.7	0	0	2,500.0
Co-sourcing	44	2,750.0	62.5	309.6	0	0	2,000.0
Third Party Advisor	44	48,000.0	1,090.9	4,113.6	0	0	25,000.0
Transaction record maintenance	44	54,722.0	1,243.7	5,360.8	0	0	30,000.0
Other	44	5,000.0	113.6	753.8	0	0	5,000.0

D.13.5.3 Self-Administered Local

	N	Sum	Mean	St. Dev	Median	Minimum	Maximum
Software acquisition	44	526,948.0	11,976.1	30,567.4	50.0	0	140,000.0
Contract Software development	44	5,553.0	126.2	483.5	0	0	2,500.0
Co-sourcing	44	110,410.0	2,509.3	8,496.8	0	0	40,000.0
Third Party Advisor	44	129,000.0	2,931.8	10,005.6	0	0	60,000.0
Transaction record maintenance	44	169,315.0	3,848.1	15,821.2	0	0	100,000.0
Other	44	10,000.0	227.3	1,053.5	0	0	5,000.0

E Jurisdiction Cost Estimation (Detailed Estimates)

E.1 Costs Incurred by Local Governments in Self-Administering Sales Taxes by State

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$13,000,000	\$2,000,000	\$15,000,000
Alaska	83	\$5,600,000	\$1,400,000	\$7,000,000
Arizona	15	\$17,000,000	\$2,000,000	\$19,000,000
Colorado	70	\$8,000,000	\$3,000,000	\$11,000,000
Louisiana	54	\$16,000,000	\$10,000,000	\$26,000,000
Total	550	\$59,600,000	\$18,400,000	\$78,000,000

E.2 Regression Model Results – 23 Jurisdictions (Sales Tax Collected)⁵¹

Variable	Coefficient ⁵²	Std. Err. ⁵³	<i>t</i> -stat ⁵⁴	<i>p</i> -value ⁵⁵	95% Confidence Lower Bound ⁵⁶	95% Confidence Upper Bound ⁵⁶
Sales Tax Collected – Base Coefficient	0.0095	0.0003	34.86	0.0000	0.0089	0.0101
Sales Tax Collected - Alaska	0.0715	0.0003	262.7500	0.0000	0.0709	0.0721
Sales Tax Collected – Arizona	0.0014	0.0011	1.2700	0.2220	(0.0009)	0.0036

⁵¹ Coefficient estimate for Alabama is omitted because Alabama represents the base case scenario representing the difference between Alabama result the rest of other states.

⁵² The coefficient is our estimate of the relationship between sales tax collected (the explanatory variable) and total administrative cost (the dependent variable). In the linear regression model above, the coefficient quantifies the expected change in the dependent variable given a one-unit change in the explanatory variable.

⁵³ The standard error shows how much our estimated coefficient is likely to vary based upon sampling variability. If the coefficient is large relative to the standard error, it is likely that the coefficient is different from zero. A zero coefficient would indicate that there is no relationship between the explanatory variable and the dependent variable.

⁵⁴ The *t*-statistic is the coefficient divided by the standard error. The *t*-statistic is used to compute the *p*-value.

⁵⁵ The *p*-value indicates the likelihood that the coefficient is equal to zero. Therefore, a *p*-value closer to zero will indicate that the coefficient is unlikely to be equal to zero. In practice, a *p*-value of less than 0.05 (5 percent) is taken to indicate a sufficiently low probability that we can conclude that the coefficient is *not* equal to zero.

⁵⁶ The 95 percent confidence lower and upper bounds describe the interval in which the true value of the parameter most likely lies.

Variable	Coefficient ⁵²	Std. Err. ⁵³	<i>t</i> -stat ⁵⁴	<i>p</i> -value ⁵⁵	95% Confidence Lower Bound ⁵⁶	95% Confidence Upper Bound ⁵⁶
Sales Tax Collected – Colorado	(0.0046)	0.0004	(12.4000)	0.0000	(0.0054)	(0.0038)
Sales Tax Collected - Louisiana	(0.0032)	0.0015	(2.1800)	0.0430	(0.0062)	(0.0001)
R-squared	0.939					
Observations	23					

E.3 Regression Model Results – Alaska and Top Quartile Jurisdictions (Sales Tax Collected)⁵⁷

Variable	Coefficient	Std. Err.	<i>t</i> -stat	<i>p</i> -value	95% Confidence Lower Bound	95% Confidence Upper Bound
Sales Tax Collected	0.030296	0.0019	15.76	0.00	0.0254	0.0352
R-squared	0.773					
Observations	6					

The results of our analysis indicate that the total administrative cost for self-administering jurisdictions in the five states was \$78 million in 2014. The confidence intervals around regression coefficients quantify the level of uncertainty in the estimates. Specifically, the intervals imply that if the survey is repeated 100 times by selecting 23 jurisdictions in the five states at random, then we would find that the estimate of total administrative cost for all five states falls between \$51 million and \$107 million in 95 of the cases. Tables E.4 and E.5 show the lower and upper bounds of the cost estimates which are derived by applying the upper and lower bound parameter estimates shown in Tables E.2 and E.3.

⁵⁷ For Alaska, due to limited number of observations (one observation), we identified broadly comparable jurisdictions in terms of value of compliance costs per one unit of sales tax collected and used these six jurisdictions to estimate a regression coefficient to be applied for Alaska.

E.4 Costs Incurred by Local Governments in Self-Administering Sales Taxes by State (95th Percent Lower Bound)

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$12,000,000	\$2,000,000	\$14,000,000
Alaska	83	\$4,200,000	\$1,800,000	\$6,000,000
Arizona	15	\$11,000,000	\$2,000,000	\$13,000,000
Colorado	70	\$4,000,000	\$4,000,000	\$8,000,000
Louisiana	54	\$8,000,000	\$2,000,000	\$10,000,000
Total	550	\$39,200,000	\$11,800,000	\$51,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

E.5 Costs Incurred by Local Governments in Self-Administering Sales Taxes by State (95th Percent Upper Bound)

State	Count	Labor Costs	Non-Labor Costs	Total Costs
Alabama	328	\$15,000,000	\$1,000,000	\$16,000,000
Alaska	83	\$6,900,000	\$1,100,000	\$8,000,000
Arizona	15	\$24,000,000	\$1,000,000	\$25,000,000
Colorado	70	\$14,000,000	\$1,000,000	\$15,000,000
Louisiana	54	\$26,000,000	\$17,000,000	\$43,000,000
Total	550	\$85,900,000	\$21,100,000	\$107,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

E.6 Sales Tax Collections in Survey States (Estimated for 2014)

State Name	Total State Tax Collections	Total Local Tax Collections	State-Administered Local	Self-Administered Local
Alabama ⁵⁸	\$2,345,119,395	\$1,936,873,242	\$308,651,249	\$1,628,221,993
Alaska ⁵⁹	\$0	\$233,498,081	\$0	\$233,498,081
Arizona ⁶⁰	\$6,403,144,717	\$2,447,021,132	\$693,069,230	\$1,753,951,902
Colorado ⁶¹	\$2,373,651,675	\$3,215,526,628	\$809,659,832	\$2,405,866,796
Louisiana ⁶²	\$2,903,146,874	\$4,225,820,248	\$0	\$4,225,820,248
Total	\$14,025,062,662	\$12,058,739,331	\$1,811,380,311	\$10,247,359,020

⁵⁸ Data on total sales tax collections for self-administering jurisdictions in Alabama are unavailable. Amount is estimated by using inflation-adjusted 2012 total local sales tax collections for Alabama from the Census Bureau less 2014 actual local sales tax collections for jurisdictions administered by the Alabama Department of Revenue as obtained from Ala. Dep't of Revenue, *2014 Annual Financial Report*.

⁵⁹ Data obtained from Office of the State Assessor, *2015 Alaska Taxable* (Jan. 2016). (See Table 2, 2015 Municipal Sales Taxes, Special Taxes and Revenues.)

⁶⁰ Data on Arizona local sales tax collections broken between self-administered jurisdictions and local jurisdictions administered by the state are not available. Amounts here are estimated using inflation-adjusted 2012 total local sales tax collections for Arizona from the Census Bureau less actual collections by self-administering jurisdictions as obtained from financial reports for individual jurisdictions.

⁶¹ Data on Colorado local sales tax collections broken between self-administered jurisdictions and local jurisdictions administered by the state are not available. Amounts here are estimated using inflation-adjusted 2012 total local sales tax collections for Colorado from the Census Bureau less inflation-adjusted collections by self-administering jurisdictions as obtained from Colorado Dep't of Local Affairs, *2011 Annual Compendium of Local Gov't. Finances*.

⁶² Louisiana self-administered tax collections based on inflation-adjusted collections for 2012 as available from the Census Bureau.

E.7 Summary Results for Observations Collected During Survey

Obs	State	Jurisdiction Name	Est. Labor Cost ⁶³	Est. Total Cost ⁵⁷	Expected Total Cost (Regression) ⁵⁷
1	Alabama	Jefferson County	\$506,844	\$581,844	N/A
2	Alabama	Auburn city	\$281,580	\$319,080	\$325,397
3	Alabama	Mountain Brook city	\$112,632	\$115,132	\$93,039
4	Alaska	Adak city	\$28,158	\$28,158	\$10,533
5	Arizona	Mesa city	\$1,295,268	\$1,395,268	\$1,525,041
6	Arizona	Chandler city	\$1,295,268	\$1,395,268	\$1,112,908
7	Arizona	Douglas city	\$140,790	\$158,290	\$59,780
8	Arizona	Nogales city	\$56,316	\$98,816	\$112,124
9	Arizona	Tempe city	\$788,424	\$888,424	\$1,008,190
10	Colorado	Wheat Ridge city	\$168,948	\$186,448	\$107,704
11	Colorado	Frisco town	\$56,316	\$88,816	\$16,608
12	Colorado	Ridgway town	\$56,316	\$73,816	\$3,861
13	Colorado	Sheridan city	\$56,316	\$88,816	\$13,806
14	Colorado	Colorado Springs city	\$450,528	\$663,027	\$708,046
15	Colorado	Larkspur town	\$112,632	\$115,132	\$1,949
16	Colorado	Edgewater city	\$28,158	\$30,658	\$20,725
17	Colorado	Crested Butte town	\$28,158	\$55,658	\$11,045
18	Colorado	Boulder city	\$450,528	\$525,528	\$518,571
19	Colorado	Gypsum town	\$56,316	\$58,816	\$21,551
20	Colorado	Longmont city	\$225,264	\$252,764	\$146,844
21	Louisiana	St. John the Baptist Parish	\$563	\$753,063	\$289,941
22	Louisiana	Ascension Parish	\$619,476	\$769,475	\$938,963
23	Louisiana	Webster Parish	\$225,264	\$242,764	\$191,989
24	Louisiana	St. Martin Parish	\$168,948	\$268,948	\$188,880
Total			\$7,209,011	\$9,154,004	\$9,137,700

We estimated total costs using the data reported by the 23 jurisdictions and compared these results to those that would have been predicted by the regression analysis applied to the remaining jurisdictions.

⁶³ Estimated labor cost and estimated total cost are estimates derived from the data collected in the jurisdiction survey. Expected total cost is the predicted total cost for each of these jurisdictions based upon the regression model.

F Taxpayer Cost Estimation (Detailed Estimates)⁶⁴

Table F.1: Total Taxpayer Cost of Complying with State and Local Sales Taxes by Type of Jurisdiction and by State

State	State Tax	State-Administered Local	Self-Administered Local	Total
Alabama	\$74,000,000	\$19,000,000	\$162,000,000	\$255,000,000
Alaska	\$0	\$0	\$3,000,000	\$3,000,000
Arizona	\$71,000,000	\$20,000,000	\$75,000,000	\$166,000,000
Colorado	\$39,000,000	\$21,000,000	\$111,000,000	\$171,000,000
Louisiana	\$47,000,000	\$0	\$148,000,000	\$195,000,000
Total for all states	\$231,000,000	\$60,000,000	\$499,000,000	\$790,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.				

Table F.2: Incremental Taxpayer Cost of Complying with Locally Administered Sales Taxes by State

State	Incremental Compliance Cost – Labor Component	Incremental Compliance Cost – Non-labor Component	Incremental Compliance Cost to Taxpayers
Alabama	\$51,000,000	\$12,000,000	\$63,000,000
Alaska	\$0	\$0	\$0
Arizona	\$10,000,000	\$14,000,000	\$24,000,000
Colorado	\$28,000,000	\$20,000,000	\$48,000,000
Louisiana	\$33,000,000	\$22,000,000	\$55,000,000
Total	\$122,000,000	\$68,000,000	\$190,000,000
Amounts in U.S. Dollars. Figures may not add due to rounding.			

⁶⁴ The results at the state level are statistically significant. See discussion in Section 3.2.

Table F.3: Extrapolated Total Cost (Detailed) by State

State	State		State-Administered Local		Self-Administered Local		Total Costs
	Labor Cost	Non-Labor Cost	Labor Cost	Non-Labor Cost	Labor Cost	Non-Labor Cost	
Alabama	\$39,000,000	\$36,000,000	10,000,000	\$9,000,000	104,000,000	\$58,000,000	256,000,000
Alaska	\$0	\$0	\$0	\$0	\$2,000,000	\$1,000,000	\$3,000,000
Arizona	\$30,000,000	\$41,000,000	\$8,000,000	12,000,000	\$30,000,000	\$45,000,000	166,000,000
Colorado	\$20,000,000	\$19,000,000	11,000,000	10,000,000	\$61,000,000	\$50,000,000	171,000,000
Louisiana	\$20,000,000	\$27,000,000	\$0	\$0	\$71,000,000	\$77,000,000	195,000,000
Total	108,000,000	123,000,000	29,000,000	31,000,000	267,000,000	231,000,000	789,000,000

Amounts in U.S. Dollars. Figures may not add due to rounding.

**Table F.4: Sales Tax Collections by Bracket, Louisiana
(Fiscal Year Ended June 30, 2014)⁶⁵**

Amount of Tax Due	Tax Due by Bracket	% of Tax Due	# of Returns	% of Returns
No Tax Due - 99	4,449,344	0.16%	363,213	41.77%
100 - 199	7,358,309	0.27%	50,332	5.79%
200 - 499	31,019,823	1.15%	91,837	10.56%
500 - 999	71,216,697	2.63%	97,919	11.26%
1,000 - 1,999	142,395,134	5.26%	99,748	11.47%
2,000 - 2,999	117,147,282	4.33%	47,823	5.50%
3,000 - 3,999	97,006,540	3.58%	28,035	3.22%
4,000 - 4,999	81,393,896	3.01%	18,226	2.10%
5,000 - 9,999	256,530,612	9.47%	36,986	4.25%
10,000 - 24,999	326,188,478	12.05%	21,630	2.49%
25,000 - 49,999	225,028,589	8.31%	6,524	0.75%
50,000 - 99,999	234,831,257	8.67%	3,372	0.39%
100,000 & Over	1,113,501,130	41.12%	3,970	0.46%
Total	2,708,067,091	100.00%	869,615	100.00%

⁶⁵ Source: Louisiana Department of Revenue. Annual Tax Collection Report. 2013-2014.