Department of Transportation
Office of the Chief Information Officer

SUPPORTING STATEMENT

This Supporting Statement is developed to request the Office of Management and Budget's (OMB) review and approval of a new information collection request (ICR) based on a study entitled, *"The Impact of Driver Compensation on Commercial Motor Vehicle Safety."*

Part B. Collections of Information Employing Statistical Methods

1. Describe potential respondent universe and any sampling selection method to be used.

a. Introduction - Commercial motor vehicle (CMV) drivers are compensated in a variety of methods, but there is no known research that demonstrates a potential relationship of all various compensation methods to driver behavior. Understanding this relationship will enable the commercial motor carrier to make more informed decisions regarding driver compensation related to safe operations. The purpose of the study is to determine the various methods in which CMV drivers in the sample are compensated and assess if there is any correlation to safe CMV operation. Should the study show that there is a relationship between the methods drivers are paid and the methods' effect on safe driving performance, a potential benefit of the study will be to identify the method of compensation that will minimize crashes and unsafe driving behaviors leading to fewer fatalities and injuries.

   Study Objective: To examine the relationship between driver compensation (e.g., pay by the mile or hour) and safety.

   To achieve this objective, the research team will:

   1. Survey motor carriers to determine how they compensate drivers.
   2. Evaluate the impact of driver compensation method on CMV safety.
   3. Assess the safety implications of the commercial driver compensation and other variables that may affect CMV driving safety.

b. Population and Survey Frame - The population for this study is defined as CMV property carrying carrier companies operating in the US. The survey frame consists of CMV property carrying carriers listed in the Motor Carrier Management Information System (MCMIS) characterized by the Federal Motor Carrier Safety Administration (FMCSA) as having an "active" status. Active carriers are those registered with the Department of Transportation (have been issued a DOT Number), having recent activity, and having current insurance. MCMIS is a database of CMV carriers, the majority of which consist of US companies , although carriers operating in the US from foreign countries such as Canada and Mexico who have been issued a DOT number are also included in the database and will be part of the survey frame. The data indicates there are approximately 539,000 carriers with recent activity of the 730,000 registered carriers employing approximately 3,000,000 drivers as of December 2013. A significant factor illustrated in Figure V is that the majority of motor carriers operate between 5 and 10 units and fall into the FMCSA small carrier category.

These carriers typically employ 5 or fewer drivers, while a significant number of the nation's drivers are employed by large carriers.

Following are the study's null hypothesis and alternative hypothesis:

> Null hypothesis (H_0): The proportion of unsafe driving behaviors is the same for all methods of driver compensation.
>
> Alternative hypothesis (H_1): The proportion of unsafe driving behaviors varies depending on method of driver compensation.

Proportions of unsafe driving behaviors will be calculated by dividing the carrier violation rate (dividing the number of violations by the annual miles driven) by the number of carriers for each compensation method. Unsafe driving behaviors are collected from the survey and cross-referenced and validated with data collected within MCMIS.

Based on the population and survey frame, the research team concluded that the chi square test is most appropriate to test the independent variable in the research hypotheses (method of compensation). The research team will also conduct chi square tests of the other characteristics of carriers in the sample frame identified in the Introduction section of this document (e.g., type of operation, number of power units, and average length of haul) that may be confounding variables and the research team will control for those effects.

In the event the study determines that the null hypothesis is rejected, the research team intends to conduct t-tests on compensation methods to determine which method has the greatest impact on safety.

Additional data will be used to determine possible relationships between variables using statistical methods such as chi-square and t-tests. Variables include:

- Type of CMV operation (long-haul, short-haul, or line-haul) by size of carrier (very small, small, medium, or large)
- Whether the carrier is for-hire, private, or owner operated and whether it can be characterized as a truckload, less-than-truckload, regional, tanker, or other type of carrier
- Number of power units
- Average length of haul
- Primary commodities carried
- Number of regular, full-time drivers the carrier employs
- Average driving experience, in years, of drivers working for the companies included in the sample

c. Approach:

The research team is using a confidence level of 95% and a 5% margin of error for the study. The 5% margin of error is consistent with the General Accounting Office recommendation. The survey frame will be used to obtain a stratified sample for the study. The research team conducted an a priori power analysis with the aid of the *G*Power 3* software application, which is “a free general power analysis program” (Mayr, et al, 2007). G*Power 3 is frequently cited as a robust tool by educators from such institutions as UCLA, Claremont Graduate University (Berger, 2009); Deakin University (Anglim, 2010); Indiana University (Park, 2008); and the University of Wisconsin. As Faul, et al (2007), point out:

In a priori power analyses (Cohen, 1988), sample size N is computed as a function of the required power level (1 – β), the pre-specified significance level α, and the population effect size to be detected with probability 1 – β. A priori analyses provide an efficient method of controlling statistical power before a study is actually conducted (see, e.g., Bredenkamp, 1969; Hager, 2006) and can be recommended whenever resources such as time and Money required for data collection are not critical.

To be consistent with a standard advanced by Cohen (1992), the research team used an effect size (ES) of 0.1 when using G*Power 3 in completing the power analysis. The error probability (α) the team used is .05. While Cohen and others recommend using a power level (1 – β error probability) of .80, the research team opted to use a power level of 0.95 to maximize the probability of correctly rejecting the null hypothesis should it be false for the study sample. The research team also chose the larger sample size than a level of power of .95 yields because it will maximize the potential for collecting data for a larger variety of pay methods. Because the study examines eight (8) categories of driver compensation, listed below, and degrees of freedom (df) for a chi square goodness of fit-test is N-1 (where N is the number of parameters), the research team entered seven (7) degrees of freedom (df) into the *G*Power 3* program to calculate the sample size that will be used for the project. Using a margin of error of 5% and an effect size of 0.1 both result in relatively large sample sizes. Therefore, the relationship of the margin of error and effect size chosen by the study team is related to the extent that the team will use a sample size that maximizes a more robust result.

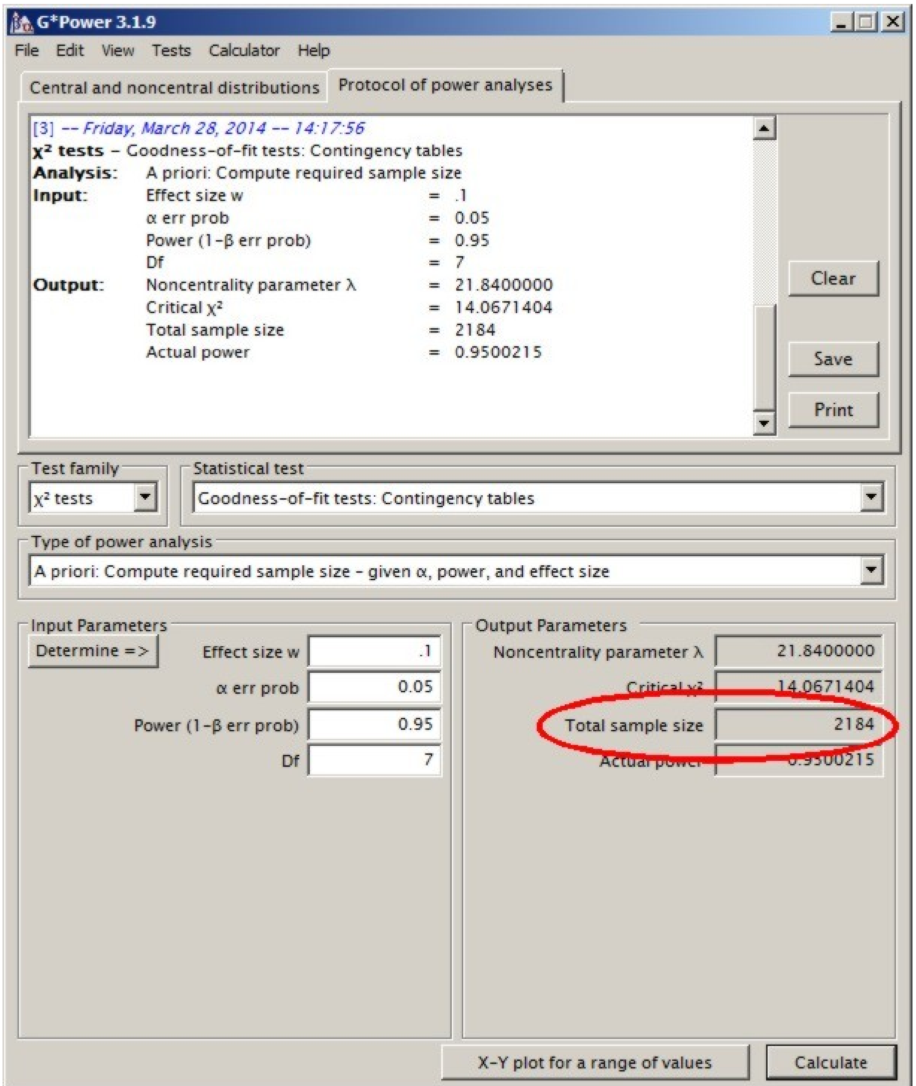
The eight categories of pay type or cells include:

- Pay by the mile
- Pay by the hour
- Salary
- Pay by percentage of load
- Pay by revenue
- Pay by Delivery or stop
- More than one pay method
- Other

For purposes of this study, the “more than one pay method” category will be treated as a homogeneous category. In cases in which carriers are so categorized, they will not also be counted in any of the other seven categories. For instance, should a carrier report using pay by the mile, pay by the hour, and salary as means of compensating drivers, they will be placed in the more than one pay method category but not the pay by the mile, pay by the hour, or salary categories.

Exhibit I, “*G*Power 3* Program Chi Square Calculation Screenshot,” is a screenshot of the *G*Power 3* program form with the effect size, error probability, power level, and degrees of freedom figures entered in the bottom half of the form and the resulting calculation of sample size in the top half of the form. As shown in the bottom right quadrant of the form, the resulting calculated total sample size is 2,184.

Exhibit I: *G*Power 3* Program Chi Square Calculation Screenshot



The a priori sample size calculation for chi square is influenced by both the effect size and power. The table in Exhibit II shows sample sizes calculated using G*Power 3 for various effect sizes and power (1 – β). Effect size with G*Power 3 can also be calculated by:

$$w = \sqrt{\sum_{i=1}^{k} \frac{(P_{1i} - P_{0i})^2}{P_{0i}}}$$

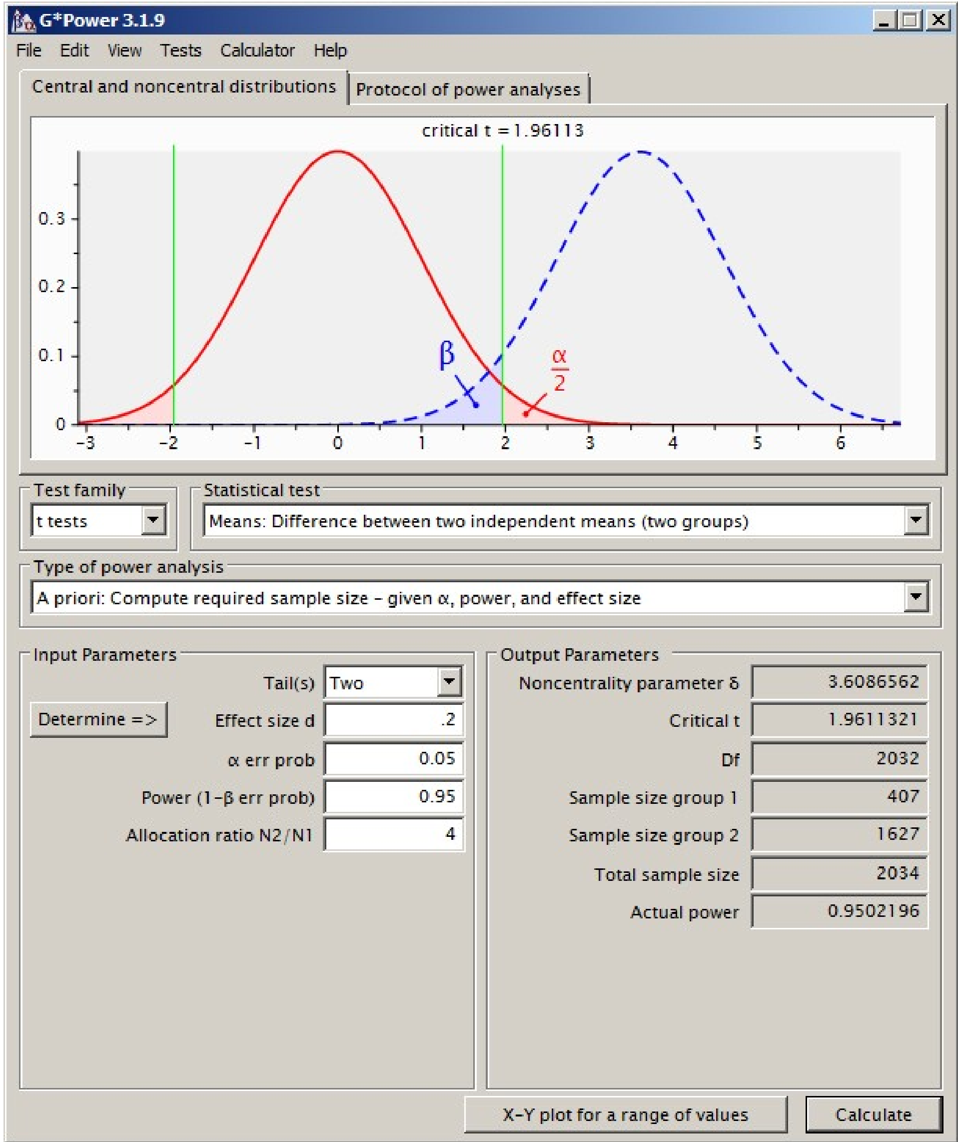
where *w* is effect size, *k* is the number of cells, P_{0i} is the population proportion in cell *i* under the null hypothesis, and P_{1i} is the population proportion in cell *i* under the alternative hypothesis. The formula used by G*Power 3 is the one advanced by Cohen in his 1992 journal article entitled *A Power Primer*, which is considered by many to be a seminal work on power analysis.

Exhibit II: The Effects of Various Effect Sizes and Power (1 – β) on Sample Size (Chi Square)		
Effect Size	**Power (1 – β)**	**Resulting Sample Size**
.5	.8	58
.5	.95	88
.3	.8	160
.3	.95	243
.1	.8	1,436
.1	.95	2,184

The research team also performed an a priori sample size calculation for an independent t-test as a means of supporting the sample size result yielded by chi square a priori calculation. Because the research study's null and alternative hypotheses imply testing for a relationship of methods drivers are paid and their driving behavior but do not indicate which of the methods are related to greater or fewer unsafe behaviors (as indicated by crash data or unsafe driving citations), the research team performed a two tailed calculation. As with an a priori calculation of sample size using chi square, the sample size yielded by an a priori calculation of sample size using a t-test of independent samples is influenced by effect size and power. For the a priori chi square calculations performed, the research team did t-test calculations using small, medium, and large effect sizes. According to Cohen (1992), for a t-test calculating the difference between independent means, a small effect size is .2, a medium effect size is .5, and a large effect size is .8. The research team also performed calculations using a .8 power and .95 power as it did with the chi square a priori calculation.

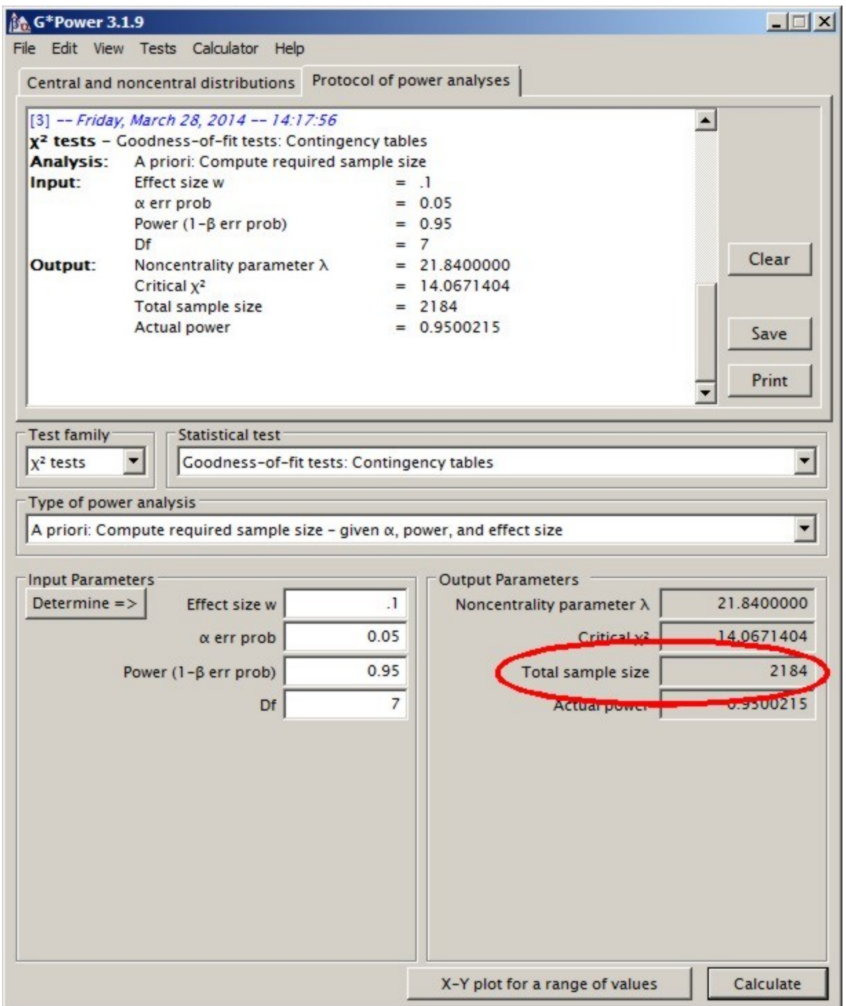
Exhibit III, below, *G*Power 3 Program t-Test Calculation Screen Shot*, displays an example of a t-test calculation. The table in Exhibit IV shows sample sizes calculated using *G*Power 3* for various effect sizes and power (1 – β). A 2005 study conducted by Global Insight for the American Trucking Associations indicates that approximately 80% of drivers operate long-haul and heavy trucks. The predominant method of compensation for this group is the pay-per-mile method. Therefore, the research team used an allocation ratio of 4 (the allocation ratio calculation that GPower 3 requires is N2/N1. In the case of the study described herein and given the findings of the Global Insight research, the calculation is .8/.2 = 4). The α error probability used for all of the calculations was .05.

Exhibit III: ***G*Power 3 Program t-test Calculation Screen Shot***



The table in Exhibit IV, *The Effects of Various Effect Sizes and Power (1-β) on Sample Size (Two-Tailed t-Test of Independent Means)*, below, displays results obtained for the t-test calculations using effect sizes of .1, .3, and .5 using powers of .8 and .95.

Exhibit IV: The Effects of Various Effect Sizes and Power (1 – β) on Sample Size (Two-Tailed t-Test of Independent Means)		
Effect Size	**Power (1 – β)**	**Resulting Sample Size**
.8	.8	26
.8	.95	130
.5	.8	80
.5	.95	328
.2	.8	1,230
.2	.95	2,034



As can be seen, the small effect size of .2 and greater power of .95 yielded a result similar (but smaller by 150 units) to that of the chi square calculation. Therefore, the size of the sample that will be selected will include 2,184 units yielded by the chi square calculation. A sample of this size will allow the research team to use both a chi square test and two-tailed t-test of independent means for analyzing data.

The research team has set a response rate goal of 20%. As illustrated in Exhibit V, below, the team will select a sample of 10,920 carrier companies stratified by peer group in order to mitigate the influence the sensitive nature of the study may have on response rate and boost the potential for obtaining the minimum number of completed survey questionnaires.
Peer groups are determined by the number of power units the CMV carriers operate and are consistent with FMCSA carrier size categories. There are four categories of peer groups: (1) *very small* (1–5 power units); (2) *small* (6–50 power units); (3) *medium* (51–500 power units); and (4) *large* (more than 500 power units). Sample stratification will reflect appropriate proportions of units from each peer group. Should the initial random sample not yield the minimum number of units required or should appropriate proportions of peer groups not be achieved, a second and, if necessary, third random sample will be drawn. If appropriate proportions of units are still not achieved after three samples have been drawn, the research team will weight sample results for nonresponse. Sampling and weighting calculations are described in the *Determining sample size and sample size allocation* section of this document.

Exhibit V: Survey Frame					
Stratum (Peer Group Categorized by No. of Power Units [PU])	**No. of Carriers in Survey Frame**	**No. of Drivers[1]**	**Proportion of Drivers(a_h)[2]**	**Calculated Sample Size[3]**	**Actual Sample Size (5X the Calculated Sample Size)[4]**
Very small (1–5 PU)	381,433	694,495	.254	555	3,527
Small (6–50 PU)	138,016	763,328	.279	609	3,871
Med. (51–500 PU)	17,947	264,687	.097	212	1,347
Large (>500 PU)	1,604	1,277,489	.370	808	2,175
TOTAL	539,000	3,000,000	1	2,184	10,920

[1]Obtained from MCS-150 report data.
[2]Proportions are based on numbers of drivers in each peer group in relation to the total number of drivers.
[3]Calculated peer group sample sizes are based on proportions of the total sample of 2,184.
[4]A factor of 5X the calculated sample size exceeds the total available large peer group size of 2,175; therefore all of the large carriers in the strata will be included in the sample. Actual sample sizes of the other peer groups are adjusted proportionately to equal the total of 10,920 carriers that will be sampled.

The total of 10,920 carriers to be sampled is 5 times as large as the total calculated size for the four peer groups. However, a fivefold approach to sampling the large peer group is impossible as it would result in a sample size that exceeds the number of carriers in that cohort. Proportionately reapportioning the difference of the calculated large peer group sample size and actual number of carrier companies in that cohort (a result of 1,604) to the other three peer groups results in those three smaller peer groups' calculated sizes being greater than 6 times as large as their calculated sample sizes. In comparison, the calculated sample size of the large peer group is smaller than 3 times its calculated size. However, as the following discussion makes clear, the research team believes oversampling the three smaller groups using a factor more than twice that of the large group is justified.

Anecdotal information obtained by the research team during its pilot of the survey questionnaire indicates that many commercial motor carriers, particularly very small and small carriers, will likely be reluctant to participate. At the conclusion of the piloting events, the research team asked for feedback from participants. Participants from three companies independently offered that they felt the larger trucking companies would likely participate in the study because they would want to be viewed as cooperative by FMCSA. However, those same participants, some of whom were once over-the-road drivers for very small or small companies, made it clear that many in the industry have the view that FMCSA acts to burden commercial carriers with regulations and are not to be trusted. Therefore, they pointed out, many in the industry would opt out of participating in the survey.

Similarly, the American Transportation Research Institute's recent report, "Critical Issues in the Trucking Industry" (2013), ranks HOS as the number one issue of concern. The preface to the report includes the following statement: "Additionally, the industry is still sorting through challenges and conflicts with the Federal Motor Carrier Safety Administration's Compliance, Safety, Accountability (CSA) initiative, which is now in its third year of national implementation." That the industry views the FMCSA in a somewhat adversarial way indicates reluctance to participate in voluntary activities such as data collection for the current study.

The research team's literature search and review yielded very little in the way of research that has already been conducted on the possible relationship of crashes, unsafe driving behaviors, and method of driver compensation method. However, the team was able to benchmark its study approach to one undertaken by the University of Michigan Transportation Research Institute for FMCSA that examined the use of onboard safety technologies. Like the study described herein, the University of Michigan study, "Tracking the Use of Onboard Safety Technologies Across the Truck Fleet" (2009), used the MCMIS database to define the frame and used a random stratified sample approach. As the University of Michigan team reported:

> The original estimated response rate to the survey was expected to be approximately 30 percent, but as the survey progressed it became clear that the first sample would not generate the target number of cases. Accordingly, additional samples were drawn.

While it is the intent to use a similar approach of multiple sampling to maximize participation, the University of Michigan team's experience underscores the opinion of those in the current study's piloting activities: the smaller the company, the lower the response rate (the University of Michigan study used six levels of carriers characterized by number of power units; as described elsewhere in this document, the current study uses four levels). Exhibit VI, *Survey Statistics*, displays a portion of a table that appears on the University of Michigan study.

Exhibit VI: Survey Statistics				
Strata	Refusals	Nonresponse	Number of Companies in Samples	Response Rate
Strata 1: 1-3 Trucks	168	1184	1500	10%
Strata 2: 4-20 Trucks	169	1198	1500	9%
Strata 3: 21-55 Trucks	230	1061	1500	14%
Strata 4: 56-100 Trucks	150	982	1334	15%
Strata 5: 101-999 Trucks	119	987	1333	17%
Strata 6: 1000+ Trucks	32	216	333	26%
TOTAL	868	5628	7500	13%

2. Describe procedures for collecting information including statistical methodology for stratification and sample selection, estimation procedures, degree of accuracy needed, and less than annual periodic data cycles.

Data collected will yield estimates of various types of carrier operations such as long-haul, short-haul, and line-haul, types of commodities hauled, number of power units in their fleets, and other information. The survey will also determine the percentages of carriers using various methods to compensate drivers such as pay-per-mile, pay-per-load, and hourly rate. The crash rate by method of compensation will also be calculated.

The research team is using a confidence level of 95% and a 5% margin of error for the study. The 5% margin of error is consistent with the General Accounting Office recommendation. The survey frame will be used to obtain a stratified sample for the study. Strata will be based on peer group categorized by number of power units.

Exhibit II on page 2, *Survey Frame*, displays the number of carriers and drivers by peer groups available in the MCMIS as of March, 2013. This data is being presented for discussion purposes only. Currently available MCMIS data will be used for drawing the sample.

The research team will invite 10,920 carriers to participate in the survey in order to mitigate the influence the sensitive nature of the study may have on response rate and boost the potential for obtaining the minimum number of completed survey questionnaires using the approach detailed in response to Item 1, above.

The research team will verify contact information of carriers included in the sample(s) via web search or telephone contact. Information to be verified includes the name of the carrier survey point-of-contact (POC), POC direct phone number, and POC email address.

Variance estimators and inference methods. The four peer groups (very small, small, medium, and large) will likely be very different with respect to data collected from the survey. Therefore, a stratified simple random sample (SRS) with proportional allocation design is being used. The research team believes this approach to sampling and estimators employed will lead to greater statistical efficiency.

The first step in estimation will be to assign a weight to each sampled unit. To begin this process, inclusion probabilities will be calculated for each stratum as follows:

Stratum 1, Very Small CMV Carriers:	**Stratum 2, Small CMV Carriers:**	**Stratum 3, Medium CMV Carriers:**	**Stratum 4, Large CMV Carriers:**
$\pi_1 = \frac{n_1}{N_1}$	$\pi_2 = \frac{n_2}{N_2}$	$\pi_3 = \frac{n_3}{N_3}$	$\pi_4 = \frac{n_4}{N_4}$

Where π_x are probabilities of selection, n_x are the selected samples, and N_x are the strata.

The design weight, w_d, for each unit sampled will be the inverse of its inclusion probability, π. The standard formula for determining design weight will be used:

$$w_d = \frac{1}{\pi}$$

In cases in which all or almost all data for a sampled unit is missing (after repeated attempts to secure data from a non-responding units), weight adjustments for nonresponse will be calculated. The approach to calculating nonresponse weight is covered in the subsection entitled *Weighting for nonresponse* on the following page.

Determining sample size, probability weights, and sample size allocation. Determining an optimal sample size is a function of weighing precision requirements of estimates against operational constraints such as resources and time. Given this study may generate suggestions for policy change regarding driver safety practices, such as driver compensation, it is critical that estimations be as precise as possible. Readily available data tables and on-line calculators are helpful in determining sample sizes for populations of various sizes. However, because a stratified SRS design will be used in this study, the research team will be required to calculate the sample allocation across various strata. The research team will use a fixed sample size approach in which a fixed sample size n is allocated to a stratum in a specified manner. The proportion of the sample allocated to the h^{th} stratum is denoted as $a_h = n_h/n$, where each a_h is between 0 and 1 inclusively (i.e., $0 \leq a_h \leq 1$) and the sum of a_h is equal to 1, i.e.:

$$\sum_{h=1}^{L} a\mathrm{h} = 1$$

Therefore, for each stratum *h*, the sample size n_h is equal to the product of the total sample size and the proportion a_h of the sample coming from that particular stratum:

$$n_h = n \ x \ a_h$$

Weighting for unit nonresponse. The research team will use the following approach advanced in the Statistics Canada publication, *Survey Methods and Practices* (2010), to weight for nonresponse. Assuming a population of 100 and a desired sample size of 25 units, the design weight for every sampled unit would be $w_d = 4$. If only 20 completed questionnaires are obtained, this number constitutes our final sample size. Assuming the responding units can be used to represent both responding and non-responding units, the nonresponse adjustment factor is:

$$n/n_r = 25/20$$

$$w_d = 4$$

$$1.24 \ x \ 4 = 5$$

Therefore, each respondent represents 5 people in the survey population. A final weight of 5 is assigned to each unit on the data file. A similar approach will be applied to various strata in the stratified random sample approach used for this study.

The research team intends to employ methods to maximize item response such as online prompting, email reminders and telephone follow ups, etc., as described in Section 3. If the data yielded from the survey warrants item nonresponse weighting then it will be applied as appropriate to analyze the data to ensure valid comparisons among compensation methods.

The minimum age of drivers covered in the study will be 18. No maximum age is anticipated. Drivers of all racial and ethnic origins will be covered by the research. The study is gender neutral. No vulnerable populations are anticipated to be included in the study.

3. Describe methods to maximize response rate.

The survey process will include use of an online questionnaire. This will minimize the burden to the participant and allow them to complete the questionnaire during times of convenience to maximize the response rate. Participants will be contacted by email and reminders will be auto-generated to prompt the participant to complete the survey in a timely manner.

As survey questionnaires are completed by participants, the online questionnaire will input data automatically into the survey database. The system will be designed to measure completeness of entry. Incomplete surveys due to item nonresponse will automatically generate an email reminder that will be distributed to the participant. Two additional reminders will be sent in 3-day intervals to prompt the participant to complete the questionnaire. The emails will contain a link returning the participant to the incomplete portion of the questionnaire. If the participant does not return to complete the questionnaire they will be contacted directly by phone to complete the questionnaire. If after these efforts the participant does not complete the questionnaire, no further contact will be made. The questionnaire will be closed and an email thanking the participant for their support will be sent. A rudimentary analysis of completed questionnaires will be done by the research team to determine completeness and accuracy of responses and to identify any potential erroneous responses. In such cases, the research team will contact specific participants to validate and edit data, as appropriate, to maximize the integrity of collected data. A summary of methods that will be employed to maximize response are listed below:

1. Participants' contact information will be verified and completed with formal name, title, phone number, and email address prior to contact to ensure accuracy and maintain formality using publically available records such as Internet, phone directories, and professional associations.
2. FMCSA will send an introductory letter to participants describing the purpose of the study and encouraging carriers to participate.
3. The questionnaire will be designed to ensure ease of entry and clarity of questions. Terms will be described in context and defined to ensure understanding.
4. The questionnaire will be administered online. This will minimize the burden to the participant and allow them to complete the questionnaire during times of convenience.
5. Participants will be contacted by email and reminders will be auto-generated to prompt the participant to complete the survey in a timely manner.
6. For phone contacts, scripts will be used to ensure that interviews are compact and take as little time as possible to conduct. Surveyors will be trained and provided glossaries of terms that can be used should a participant require terms to be explained.
7. Stratified sample populations will be monitored during collection and should results return an unacceptable response rate, the research team will select a second random sample of carriers within the affected population to solicit additional responses. This approach is discussed at length in Attachment J, *Contract Management Plan.*

As noted above, anecdotal information obtained by the research team during its pilot of the survey questionnaire, a review of a recent study using a similar framing and sampling approach, and a review of recent trucking industry literature indicate that many commercial motor carriers, particularly very small and small carriers, will likely be reluctant to participate.

The anticipated low survey response rate introduces the risk of nonresponse bias. The research team will collect data on members of the sample frame correlated to key survey variables to include type of operation (long-haul, short-haul, line-haul), carrier size by power unit, safety rating, and BASIC scores for Crash and Unsafe Driving. The team will collect these data as a means of studying the possible bias the variables might introduce and, therefore, provide insight for mitigating the influence of such variables. Survey response and nonresponse rates by numbers of drivers included in each of the four FMCSA CMV Peer Group Categories will be benchmarked against data contained in the FMCSA Safety Measurement System database as a means of conducting a nonresponse bias analysis to inform the strategy for mitigating any nonresponse bias.

The research team has access to the FMCSA Safety Measurement System (SMS) database. This resource includes crash data and data from reports of different types of driver infractions provided by various law enforcement agencies throughout the United States. While the SMS includes only a fraction of the total active carriers (approximately 201,000 of the 539,000 active carriers), the research team can compare relative rates of infractions by drivers in each of the FMCSA CMV Peer Group Categories. By comparing the percentages of infractions by the drivers in various CMV Peer Group Categories (which constitutes the study's sample strata) to the results of survey responses and nonresponses, the research team can mitigate possible nonresponse bias by weighting responses for any categories that are under-represented.

4. Describe tests of procedures or methods.

A limited pilot study of five (5) trucking companies was done by the research team during September 2013 to test the effectiveness of the study approach and the validity of the survey questions detailed in this document.

The research team extracted a list of non-passenger motor carriers located within a 200-mile radius of Oak Ridge, Tennessee, from the MCMIS database. The list was pared down to include only those with current MCS-150 information. The list was grouped by peer group size and sorted by number of drivers. The intent of the team was to interview at least one individual from a CMV carrier from each of the peer groups, up to a total of nine individuals. The research team contacted carriers by phone and email until one carrier in each peer group would agree to participate in the pilot study. The study included a total of 5 carriers.

FMCSA CMV Carrier Peer Group Categories

Peer Group	No. of Drivers	Carriers Interviewed
Very Small	1-5	2
Small	6-50	1
Medium	51-500	1
Large	>500	1

The interviews with the carriers from the large and medium peer groups and one from the very small peer group were conducted in person at the carriers' locations. The interviews with the remaining carriers from the small and very small peer groups were conducted by telephone.

Each of the pilot interview respondents were safety directors. In one case, the carrier's recruiting manager also participated in part of the interview. Respondents were asked to provide feedback about each individual survey item. Each of the interviews took one hour or less to complete. Based on the interviewers' pilot experience and feedback from respondents, it is anticipated that actual initial interviews focusing on carrier data will take less than thirty (30) minutes to complete.

All of the carrier participants in the pilot interviews were receptive and indicated that they would have no trouble responding to items on the initial survey. They stated that they could respond to most of the items on the initial survey questionnaire. These items include the following:

- Method by which drivers in the company are paid
- The estimated percent of drivers paid by various methods
- Whether drivers are paid an overtime rate and the basis for overtime pay
- Whether drivers are paid for time beyond regular pay (e.g., sleeper berth time)
- The benefits provided to drivers
- Whether the company has changed the way it pays drivers within the past five years and why such a change has taken place
- The type of operation (for-hire or private and truckload; less-than-truckload; regional; tanker; or other)
- Whether driver(s) are owner operators
- Whether drivers are contracted to the CMV carrier being discussed or with other companies
- The number of power units in the fleet
- Primary commodities hauled
- Estimated average age of drivers and how many regular full-time drivers work for the company.

Items that respondents could not immediately respond to and would require further research included the following:

- Average annual total compensation paid to full-time drivers
- Average length of haul for drivers
- The typical number of years driving experience of drivers

Several main points were derived from the pilot study that influence the research approach: direct all communication to the correct participant by formal name and title to ensure proper attention will be given to the survey; be considerate of the participants' time and provide flexible response windows; and make it clear FMCSA is sponsoring this study. The participants also indicated that they had a reluctance to respond based on past experiences with FMCSA and requests for voluntary participation.

5. Provide the name and telephone number of individuals who were consulted on statistical aspects of the information collection and who will actually collect and/or analyze the information.

FMCSA is sponsoring this information collection. The FMCSA contact is:

Ms. Theresa Hallquist
Analysis, Research, and Technology Division
Department of Transportation, FMCSA
West Building 6th Floor
1200 New Jersey Avenue, SE
Washington, DC 20590
Telephone: 202-366-1064
E-mail: theresa.hallquist@dot.gov

Street Legal Industries is under contract for designing the data collection, collecting and analyzing the data.

The Street Legal Industries contacts are:

Dr. Lou Rabinowitz
Telephone: 865-805-0632
E-mail: lou.rabinowitz@slind.net

Scott Fillmon
Telephone: 210-284-2298
E-mail: scott@slind.net

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