



**I-95 Corridor Coalition
 Evaluation of Field Operations Test 8: Electronic Credentialing
 Prime Contract No. DTFH61-96-C-00098
 Results of New York State Motor Carrier Industry Survey**



Credentials

Prepa

I-95 Corridor Coalition
 Commercial Vehicle Operations Program Track
 Committee

Joint Program Office,
 Federal Highway Administration

Prepared by:

Science Applications International Corporation
 8301 Greensboro Drive
 McLean, VA 22102

Table of Contents

Executive Summary	1
Introduction.....	2
Results	3
The Respondents.....	3
Quantitative Survey Results.....	5
Opinions on Current Credentialing Process.....	7
Qualitative Results	20
Conclusions	21

List of Figures

Figure 1. Respondent’s Reported Experience in Performing Credentialing.....	3
Figure 2. Carrier Classifications Reported by Respondents (n = 54).....	4
Figure 3. The Percentages of Respondents As a Function of the Number of Power Units Credentialed Annually in New York.....	4
Figure 4. The Percentages of Respondents As a Function of the Number of Trailers Credentialed Annually in New York.....	5
Figure 5. The IRP Credentialing Process Is Too Time Consuming (n = 49).....	7
Figure 6. New York’s Current IRP Application Form Is Easy to Complete (n = 49).....	8
Figure 7. Vehicle Data and Other Information Needed for the IRP Are Easy to Get (n = 48).....	8
Figure 8. The Current IRP Process Is Efficient (n = 49).....	9
Figure 9. The Current IRP Application Is Repetitive (n = 49).....	9
Figure 10. The IFTA Credentialing Process Is Too Time Consuming (n = 51).....	11
Figure 11. New York’s Current IFTA Application Form Is Easy to Complete (n = 50).....	11
Figure 12. Vehicle Data and Other Information That Is Needed for the IFTA Are Easy to Get (n = 51).....	11
Figure 13. The Current IFTA Credentialing Process Is Efficient (n = 50).....	11

Figure 14. The Current IFTA Application Is Repetitive (N = 49)	11
Figure 15. The SSRS Credentialing Process Is Too Time Consuming (n = 36).....	11
Figure 16. New York’s Current SSRS Application Form Is Easy to Complete (n = 36)	12
Figure 17. Vehicle Data and Other Information Needed for the SSRS Are Easy to Get (n = 36) 12	
Figure 18. The Current SSRS Credentialing Process Is Efficient (n = 35).....	12
Figure 19. The Current SSRS Application Is Repetitive (n = 36).....	12
Figure 20. The HUT Credentialing Process Is Too Time Consuming (n = 52).....	12
Figure 21. New York’s Current HUT Application Form Is Easy to Complete (n = 51)	12
Figure 22. Vehicle Data and Other Information Needed for the HUT Are Easy to Get (n = 51). 13	
Figure 23. The Current HUT Credentialing Process Is Efficient (n = 52).....	13
Figure 24. The Current HUT Application Is Repetitive (n = 34).....	13
Figure 25. IRP Application Completion with an Internet Browser Form Will Be Better	14
Figure 26. Responses to the Assertion That IRP Submission Via the Internet Will Make Application Easier.....	15
Figure 27. Electronic Transfer of IRP Payment Will Be More Efficient.....	15
Figure 28. Instant Printing of the Approved IRP Credential Will Be Better.....	16
Figure 29. Instant Printing (at Your Site) of IRP Temporary Authority Will Be Better	16
Figure 30. Having Pre-Filled Fields Would Make the Application Process More Efficient (n = 53)	17
Figure 31. Pre-Filled Fields Would Not Save Much Time	17
Figure 32. Pre-Filled Fields Would Lead to More Errors.....	18
Figure 33. Internet Security Might Jeopardize Company Information.....	18
Figure 34. The Respondent’s Firm Would Use Electronic Credentialing Once Security Assurances Were Provided.....	19
Figure 35. My Firm Does Not Use Computers	19
Figure 36. Instant Printing of Approved Credential Will Get Vehicles on the Road Sooner	20

List of Tables

Table 1. Point Schema for Computing Carrier Size..... 6

Table 2. Distribution of Power Units and Trailers in Carrier Size Categories..... 6

Executive Summary

The State of New York received a grant from the I-95 Corridor Coalition to develop a proof-of-concept for an electronic credentialing system for the motor carrier industry. When fully developed, the system, which is a web-based solution, will enable motor carriers to apply, pay for, and receive the following credentials necessary for interstate operations in New York:

- International Registration Plan (IRP)
- International Fuel Tax (IFTA)
- Single State Registration System (SSRS)
- Highway Use Tax (HUT).

The proposed system, the One Stop Credentialing and Registration System (OSCAR), will function as a core system for the development and deployment of CVISN in New York.

Science Applications International Corporation, through a contract with the Joint Program Office of the Federal Highway Administration, was selected to evaluate New York's project. As part of the evaluation effort, SAIC provided technical assistance to the State of New York and the New York Motor Truck Association to conduct a baseline survey of the motor carrier industry. The purpose of the survey was to obtain industry perceptions of and needs that would be addressed by the development and deployment of an electronic credentialing system.

In the spring of 2000, an industry baseline data survey was developed and field-tested with member companies and staff from the New York State Motor Truck Association. The survey was then distributed to the association's members in June, and the completed surveys were returned in the fall of 2000. Approximately 400 surveys were distributed, and 57 completed surveys were returned.

Many of the comments and responses on this survey indicate that the largest benefit expected from electronic credentialing is a reduction in the amount of time required to obtain the IRP credential. Among the other credentials, only the HUT was viewed as being too time consuming by a plurality of the respondents, but this expression was not nearly as strong it was for the IRP. It would appear that the extent to which IRP electronic credentialing actually saves time would have the strongest overall influence on customer acceptance of electronic credentialing.

The questions regarding online credentialing indicate that there is little resistance to the concept and that most of the users foresee benefits in timesaving, accuracy, and efficiency. The lack of a trend as a function of carrier size suggests that carrier size will not be a factor in customer acceptance of electronic credentialing, and that OSCAR will be accessible to and provide benefits for the entire motor carrier industry.

Introduction

The State of New York received a grant from the I-95 Corridor Coalition to develop a proof-of-concept for an electronic credentialing system for the motor carrier industry. When fully developed, the system, which is a web-based solution, will enable motor carriers to apply, pay for, and receive the following credentials necessary for interstate operations in New York:

- International Registration Plan (IRP)
- International Fuel Tax (IFTA)
- Single State Registration System (SSRS)
- Highway Use Tax (HUT).

The proof-of-concept was developed to meet the following goals:

- Enable motor carriers to use a web-based solution to apply for and receive credentials for vehicles added to an existing fleet
- Test interfaces between the web-based solution and the state's legacy systems for the electronic exchange of information
- Update legacy systems after a credential application has been processed and the results transmitted to the applying motor carrier.

The web-based solution, which is titled, "One-Stop Credentials and Registration System (or OSCAR)," is intended to serve as a core system for New York's CVISN deployment. A successful proof-of-concept test of OSCAR will enable the state to expand the functionality of the system and move toward full deployment of a production-level system.

Science Applications International Corporation (SAIC), through a contract with the Federal Highway Administration's Joint Program Office, has been retained to evaluate New York's proof-of-concept project. SAIC held a meeting with the New York State Motor Truck Association as part of the evaluation's baseline data collection effort. The goal of the meeting was to obtain baseline information on the time commitment and costs of complying with New York's credentialing requirements. Several carrier representatives attended the meeting, at the request of the association. However, during the course of the meeting, the New York State Motor Truck Association offered to distribute a baseline data survey to all its members. The state agreed that this organization-wide distribution would provide much beneficial information on current costs to the industry, potential savings, and most importantly, on industry concerns that will need to be addressed to ensure the likely success of the electronic credentialing project.

In the spring of 2000, an industry baseline data survey was developed and field-tested with member companies and staff from the New York State Motor Truck Association. The survey was then distributed to the association's members in June, and the completed surveys were returned in the fall of 2000. Approximately 400 surveys were distributed, and 57 completed surveys were returned. This report presents the results of the survey.

Results

The Respondents

There were 57 respondents, 52 from New York State, and 1 response each from Arkansas, Massachusetts, Ontario Canada, Pennsylvania, and Wisconsin. Seventy-five percent of the respondents had been with their companies more than 7 years; 53 percent more than 10 years. Seventy-four percent of the respondents had been involved in credentialing for more than 5 years, with 48.1 percent reporting that they have been involved in credentialing for more than 10 years. **Figure 1** shows the reported credentialing activities of the 54 respondents who provided experience information.

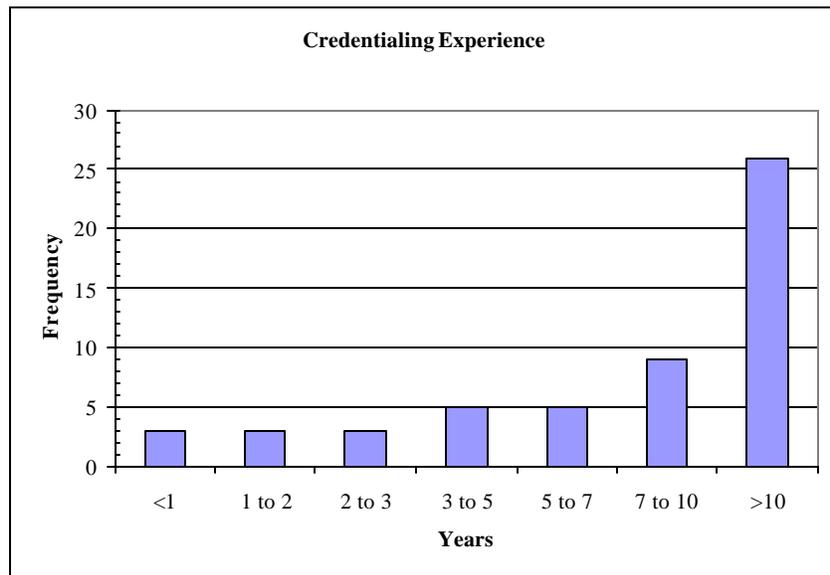


Figure 1. Respondent's Reported Experience in Performing Credentialing

As shown in **figure 2**, the majority of respondents represented either "for hire" truckload carriers (44 percent), or private fleets (35 percent). Of the 53 respondents who indicated the number of persons in their firms who perform credentialing, 62 percent indicated that they were solely responsible for credentialing. Another 30 percent indicated they shared credentialing responsibility with one other individual. Furthermore, as can be seen in **figures 3** and **4**, most of the respondents' firms (over 70 percent) credential fleets of 11 or more power units and trailers. Twenty percent of the respondents' firms credential more than 100 power units, and 33 percent credential more than 100 trailers.

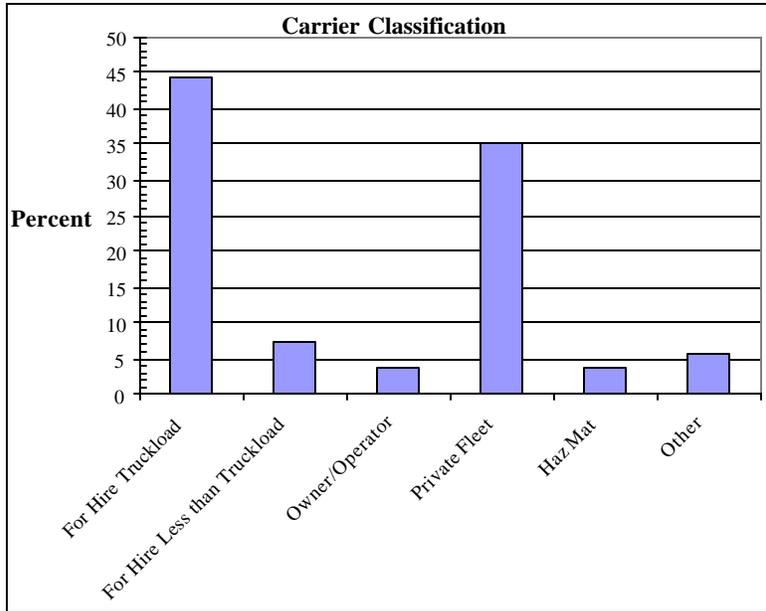


Figure 2. Carrier Classifications Reported by Respondents (n = 54)

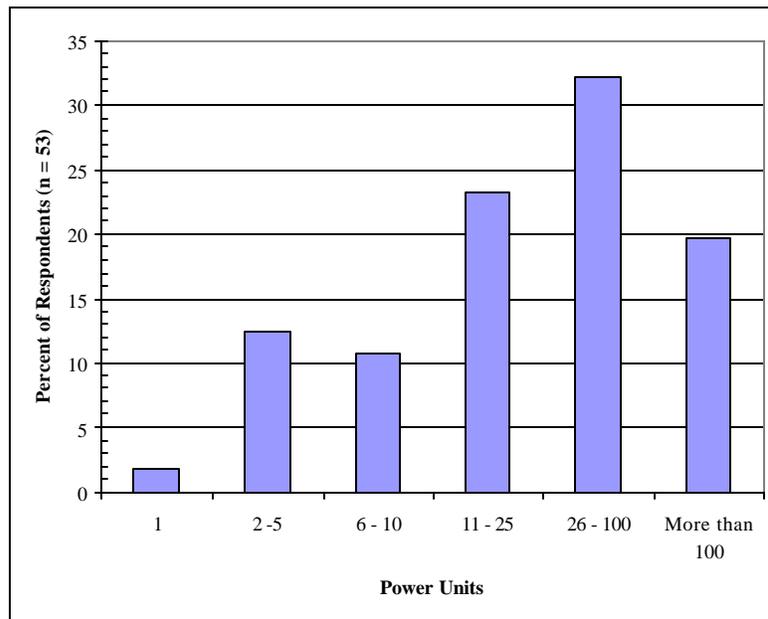


Figure 3. The Percentages of Respondents As a Function of the Number of Power Units Credentialed Annually in New York

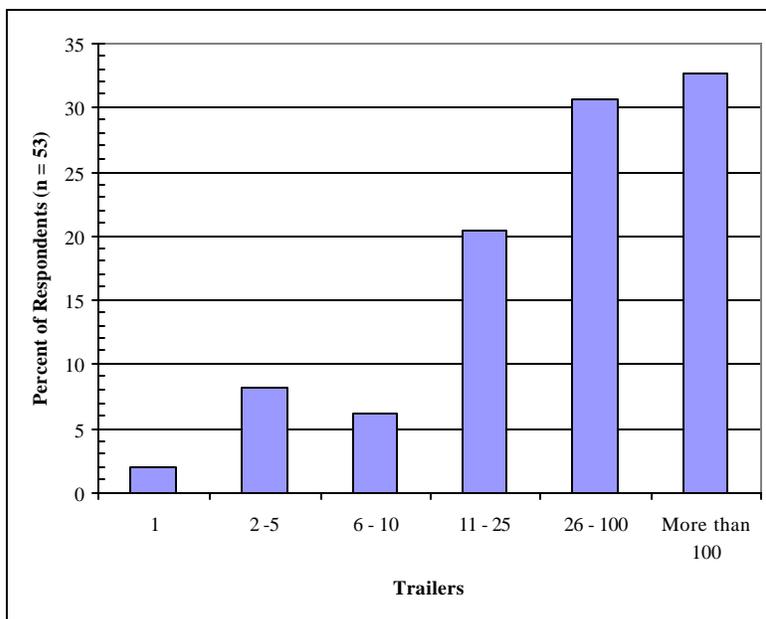


Figure 4. The Percentages of Respondents As a Function of the Number of Trailers Credentialed Annually in New York

Most of the respondents (82 percent) report that they currently obtain printed IRP applications, complete them manually, and then return them by mail. Seven respondents (12 percent) report that they hand deliver at least some of their IRP applications. Three respondents (5 percent) use a service bureau for IRP credentialed. Five respondents (9 percent) indicated that they sometimes download the IRP application form and then either mail or hand carry the completed form. This pattern of reliance on paper forms and submission via the postal service is similar for IFTA and SSRS credentialed. Although a majority of the respondents (71 percent) also use paper forms and the postal service for HUT credentials, a substantial minority (29 percent) uses a service bureau for HUT credentials. The preference for using service bureaus for HUT credentials increases with the number of power units credentialed.

Quantitative Survey Results

This section presents the survey results for questions for which respondents provided ratings on a 1 to 7 scale, where 1 represented “strongly agree,” 4 represented neutrality, and 7 represented “strongly disagree.”

To determine whether there might be trends among responses that vary with the size of a carrier operation, carriers were classified according to size. Because some carriers reported having no trailers and others reported having more trailers than power units, carrier size was determined through a procedure that combined the reported number of power units and trailers according to the schema shown in **Table 1**.

Table 1. Point Schema for Computing Carrier Size

<i>Number of Units</i>	<i>Points</i>
1	1
2 - 5	2
6 - 10	3
11 - 25	4
26 – 100	5
More than 100	6

Points were assigned separately for the number trailers and power units and the scores were summed. The distribution of small, medium, and large carriers defined by this schema is shown in **Table 2**. Fourteen carriers were classified as small, 10 as medium, and 32 as large. Seven of the small carriers reported having no trailers; therefore, they do not appear in the total in **Table 2**.

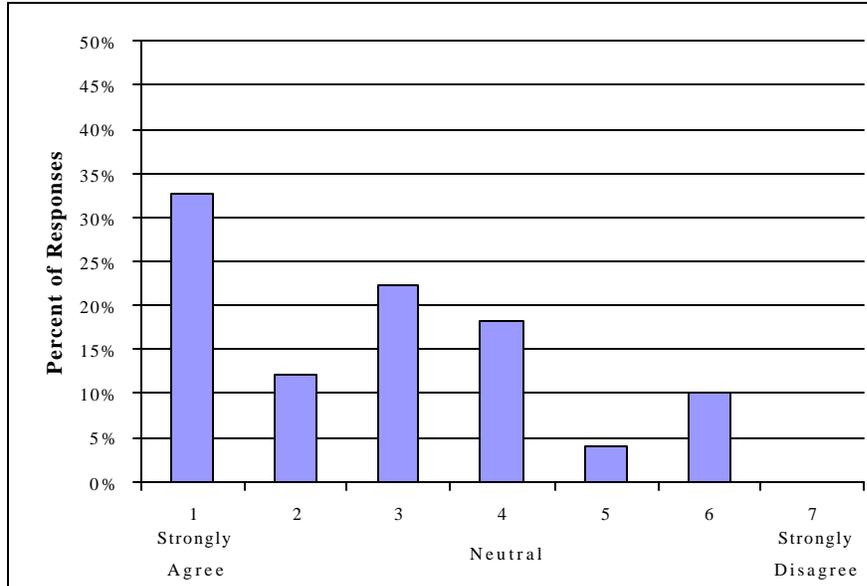
Table 2. Distribution of Power Units and Trailers in Carrier Size Categories

<i>Power Units</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>
1	1		
2 - 5	6	1	
6 - 10	3	3	
10 - 25	1	5	5
26 - 100		1	17
More than 100	1		10
Total	14	10	32

<i>Trailers</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>
1	1		
2 - 5	3	1	
6 - 10	2	1	
10 - 25	1	7	2
26 - 100		1	14
More than 100			16
Total	7	10	32

Opinions on Current Credentialing Process

IRP. As shown in **figure 5**, 33 percent of the respondents strongly agreed with the statement “the *IRP* credentialing process is too time consuming, and two-thirds agreed with this statement to some degree, whereas 18.4 percent of them were neutral and 14.3 percent somewhat disagreed.



None of the respondents strongly disagreed that the *IRP* credentialing process is too time consuming.

Figure 5. The *IRP* Credentialing Process Is Too Time Consuming (n = 49)

Although the New York *IRP* was generally perceived as too time consuming, it was not generally perceived as difficult to complete. Figure 6 shows that 12 percent of 49 respondents strongly agreed that the *IRP* was easy to complete, and 56 percent at least mildly agreed with the assertion. Sixteen percent of the respondents were neutral with respect to whether the New York *IRP* is easy to complete, and 26 percent disagreed with the assertion, although the majority of those who disagreed did so only mildly. **Figure 7** shows that over 70 percent of the respondents agreed that the data on the *IRP* form were easy to obtain.

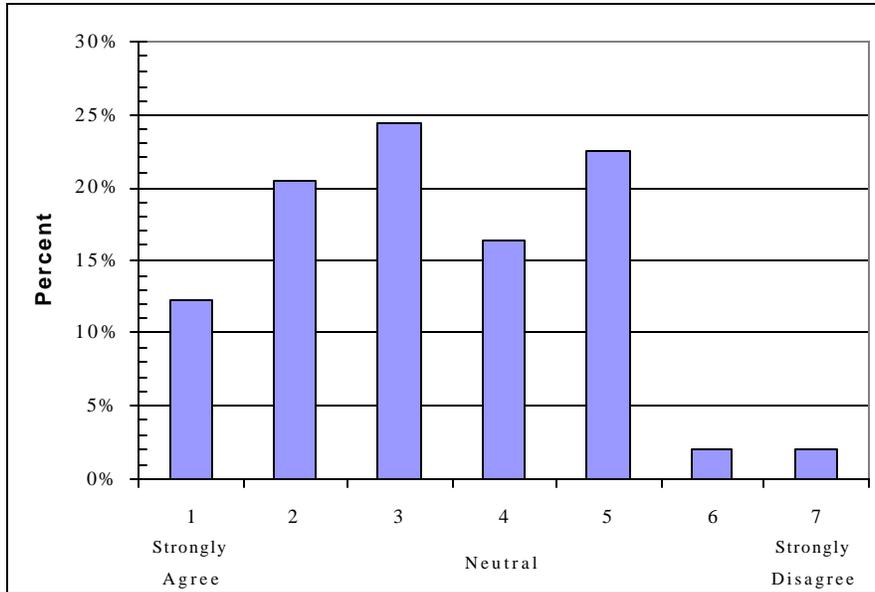


Figure 6. New York's Current IRP Application Form Is Easy to Complete (n = 49)

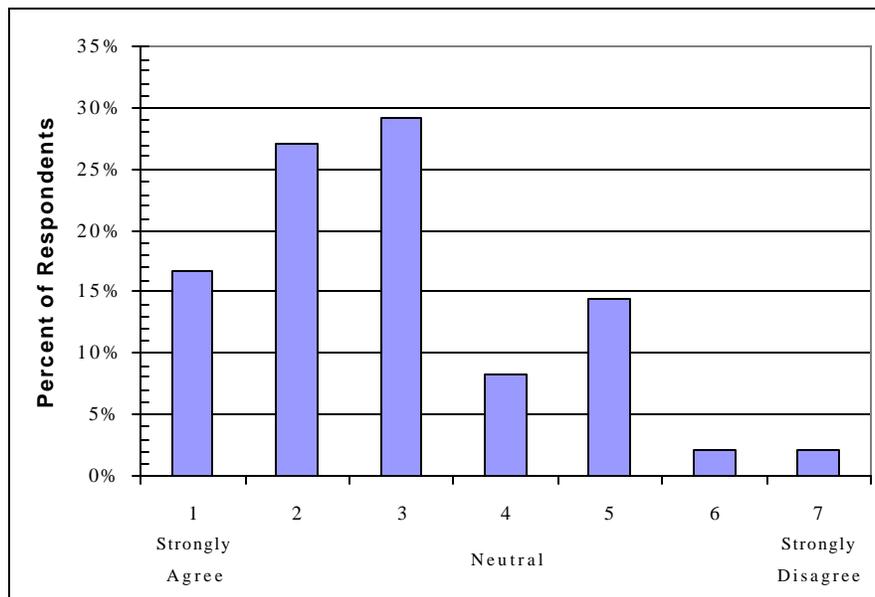


Figure 7. Vehicle Data and Other Information Needed for the IRP Are Easy to Get (n = 48)

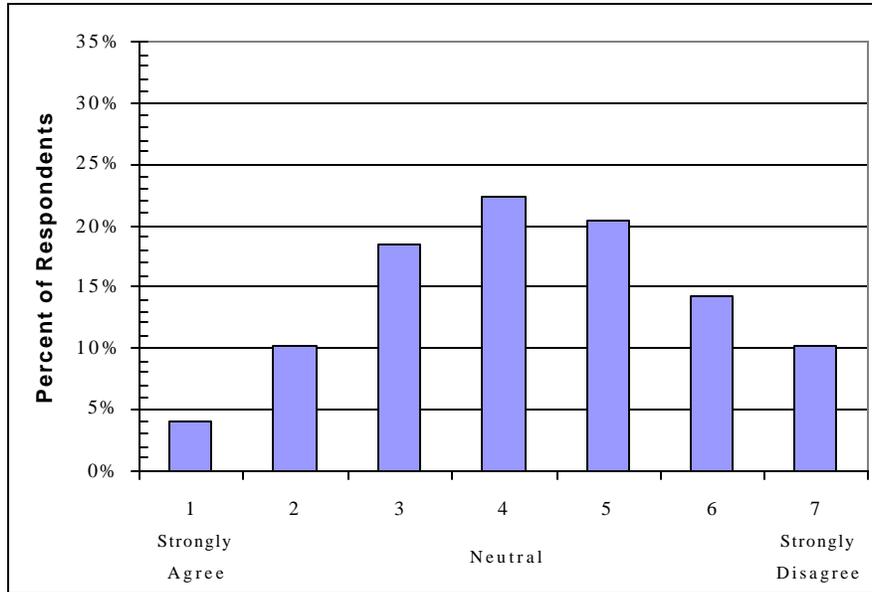


Figure 8. The Current IRP Process Is Efficient (n = 49)

As shown in **figure 8**, the modal response to the assertion that the current IRP process is efficient was neutral—neither agreeing nor disagreeing. Of those respondents who were not neutral, a slight plurality, 44 percent, disagree with the assertion that the process was efficient.

Although, as shown in **figure 9**, the modal response to the assertion that the IRP application is repetitive was neutral; a majority of respondents, 53 percent, agreed with this assertion.

In summary, respondents generally agreed that the IRP process consumes too much time and is repetitive, but is not particularly difficult. The required data were felt to be easy to obtain and the process was viewed as somewhat efficient.

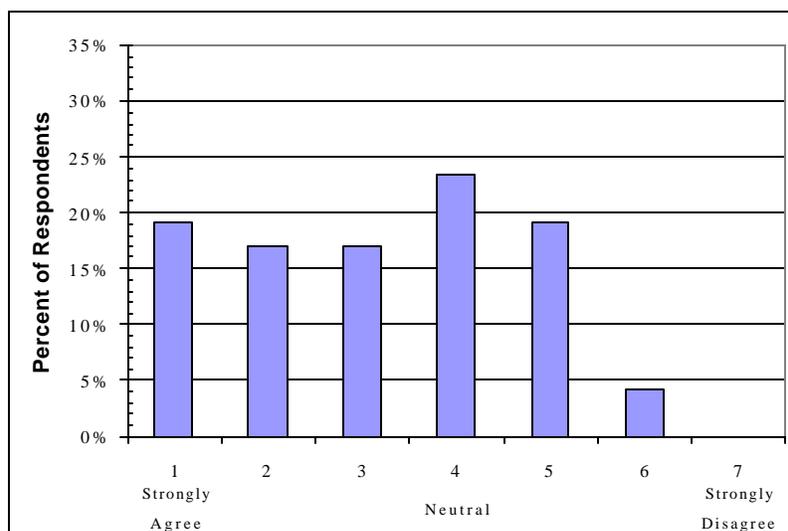


Figure 9. The Current IRP Application Is Repetitive (n = 49)

The same questions posed for the IRP were posed for the IFTA, SSRS, and HUT.

IFTA. Responses regard the IFTA were generally favorable to neutral, as can be seen in **figures 10 through 14**. The majority of respondents agreed that the IFTA process is efficient and only 40 percent felt that it was too time consuming.

SSRS. The responses to questions regarding the current SSRS are shown in **figures 15 through figure 19**. Only 33 percent of the respondents agreed that the SSRS was too time consuming. Seventy-eight percent agreed that the SSRS is easy to complete. Seventy-five percent agreed that the data for the SSRS are easy to obtain. Forty-six percent agreed that the SSRS process was efficient, 29 percent were neutral, and the remaining 26 percent disagreed, at least somewhat, that the SSRS process was efficient. Thirty-eight percent felt the SSRS process is repetitive, with the rest providing either a neutral response (29 percent), or disagreeing with the assertion (32 percent).

HUT. A majority of respondents, (52 percent) agreed that the HUT is too time consuming. However a majority also agreed that the HUT application is easy to complete and the data for it are easy to obtain. Although 42 percent agreed that the HUT process was efficient, and nearly equal number (38 percent) agreed that it was repetitive.

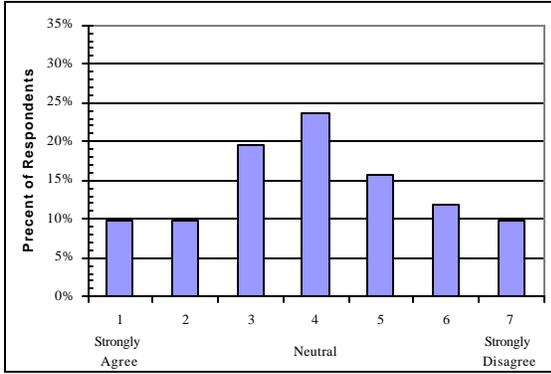


Figure 10. The IFTA Credentialing Process Is Too Time Consuming (n = 51)

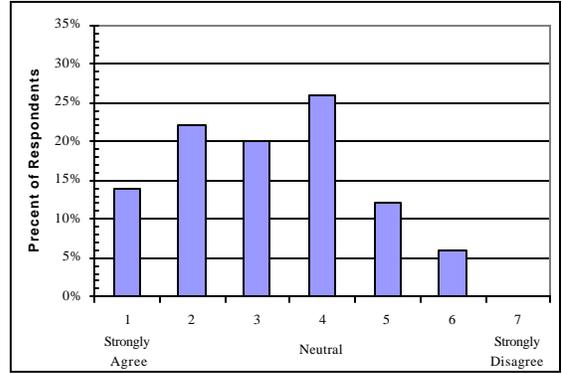


Figure 13. The Current IFTA Credentialing Process Is Efficient (n = 50)

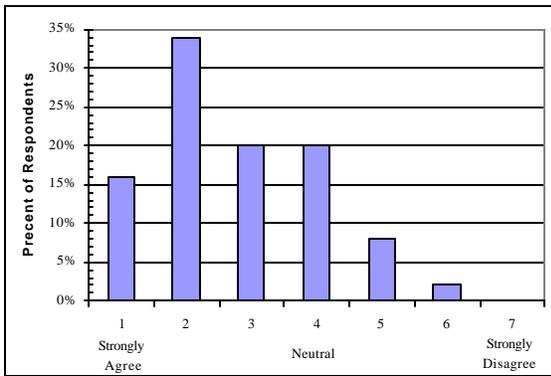


Figure 11. New York's Current IFTA Application Form Is Easy to Complete (n = 50)

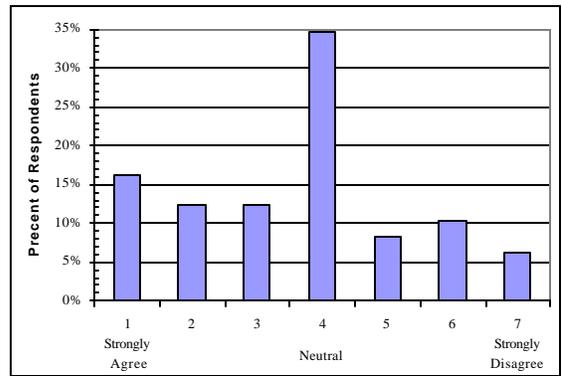


Figure 14. The Current IFTA Application Is Repetitive (N = 49)

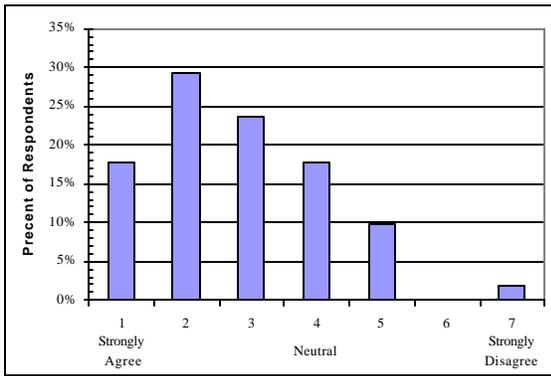


Figure 12. Vehicle Data and Other Information That Is Needed for the IFTA Are Easy to Get (n = 51)

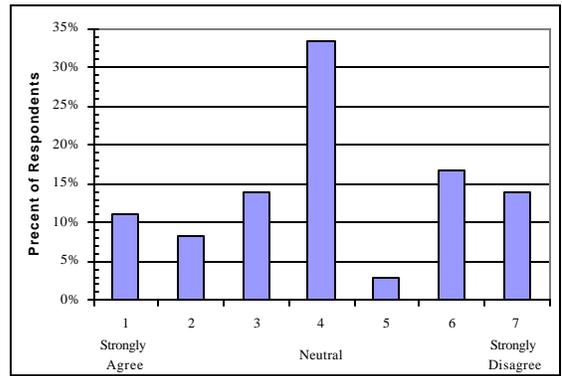


Figure 15. The SSRS Credentialing Process Is Too Time Consuming (n = 36)

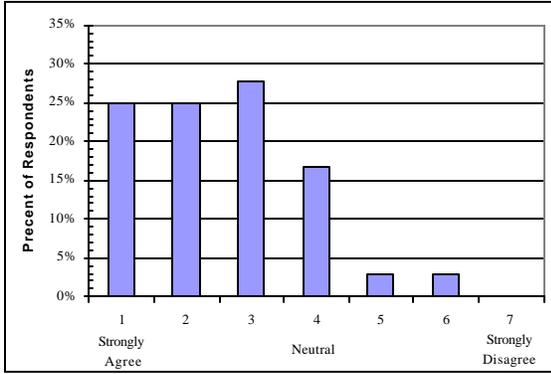


Figure 16. New York's Current SSRS Application Form Is Easy to Complete (n = 36)

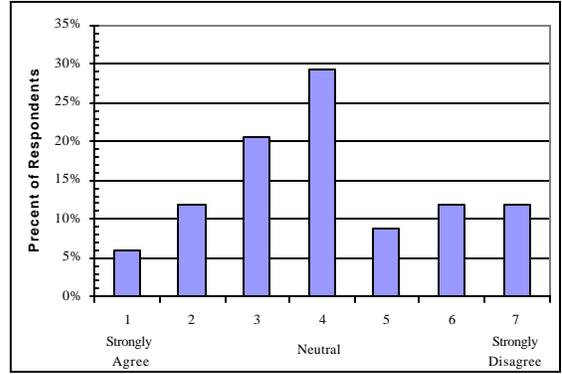


Figure 19. The Current SSRS Application Is Repetitive (n = 36)

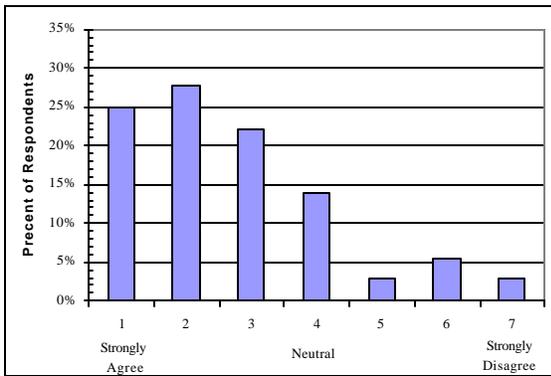


Figure 17. Vehicle Data and Other Information Needed for the SSRS Are Easy to Get (n = 36)

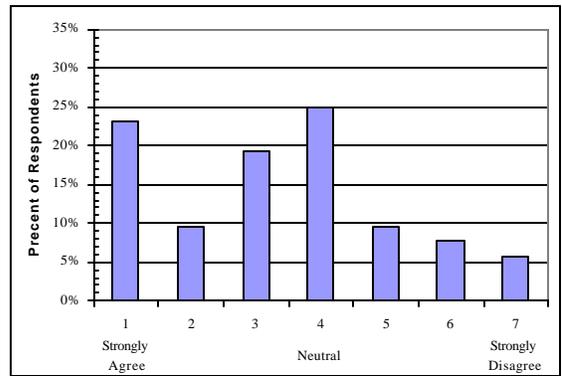


Figure 20. The HUT Credentialing Process Is Too Time Consuming (n = 52)

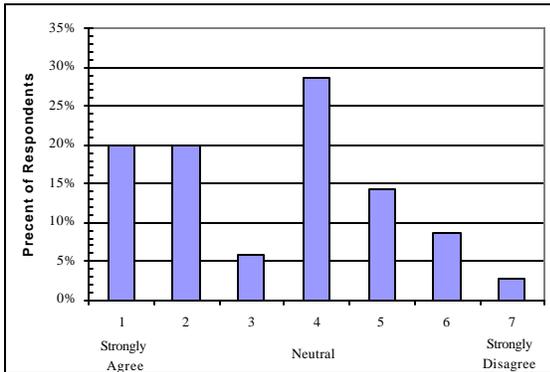


Figure 18. The Current SSRS Credentialing Process Is Efficient (n = 35)

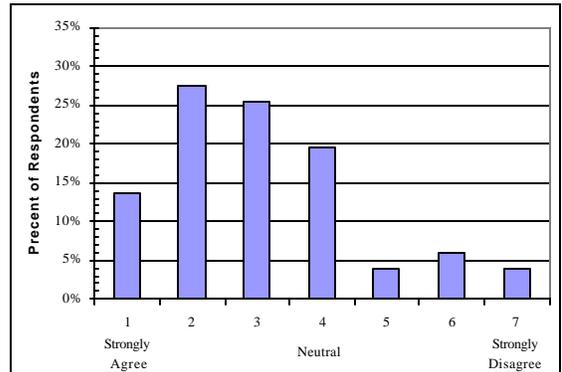


Figure 21. New York's Current HUT Application Form Is Easy to Complete (n = 51)

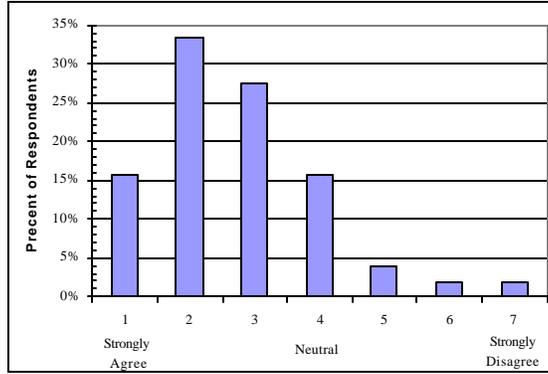


Figure 22. Vehicle Data and Other Information Needed for the HUT Are Easy to Get (n = 51)

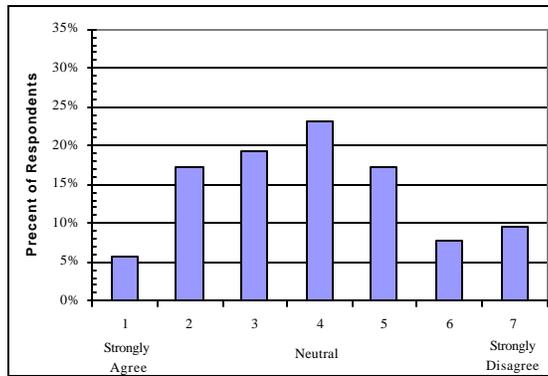


Figure 23. The Current HUT Credentialing Process Is Efficient (n = 52)

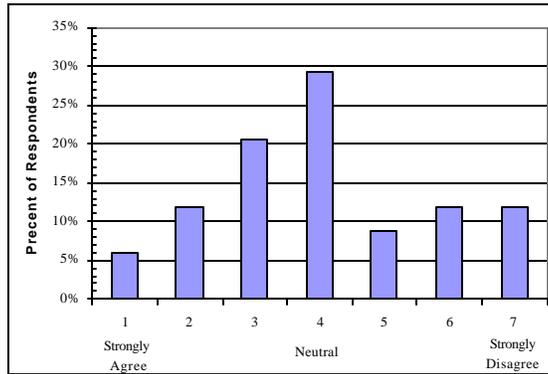


Figure 24. The Current HUT Application Is Repetitive (n = 34)

Opinions on Proposed Internet Credentialing Process

The questions about attitudes towards the proposed electronic credentialing process were prefaced with the following:

*Electronic credentialing differs from the current credentialing process in several ways. Please rate your agreement with each of the following statements regarding the comparison of the electronic process **to the current method**.*

Where appropriate, respondents were asked to respond to the following statements for each of the four credentials:

- *Application completion with an Internet browser form will be better.*
- *(IRP, IFTA, SRSS, HUT) submission via the Internet will make application easier.*
- *Electronic transfer of funds for (IRP, IFTA, SRSS, HUT) payments will be more efficient.*
- *Instant printing (at your site) of the approved credential will be better.*
- *Instant printing (at your site) of IRP temporary authority will be better.*

Responses to these questions were similar for all for credentials; therefore, the results for only the IRP are presented here.

Figure 25 shows that over 70 percent of the respondents agreed with the assertion that an Internet browser application form for the IRP would be better.

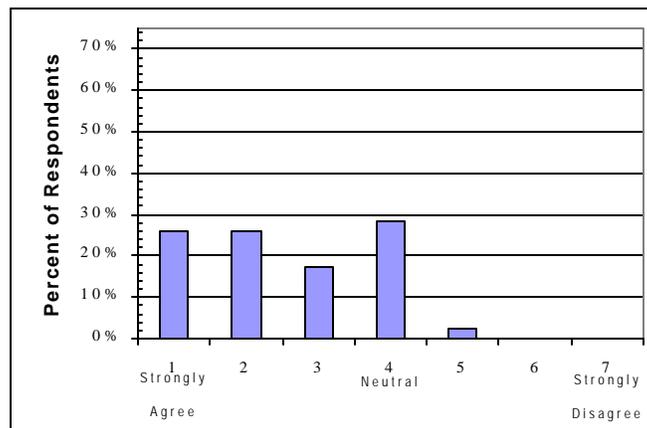


Figure 25. IRP Application Completion with an Internet Browser Form Will Be Better

As shown **figure 26**, there was similarly high agreement with the assertion that Internet submission of the IRP will be easier.

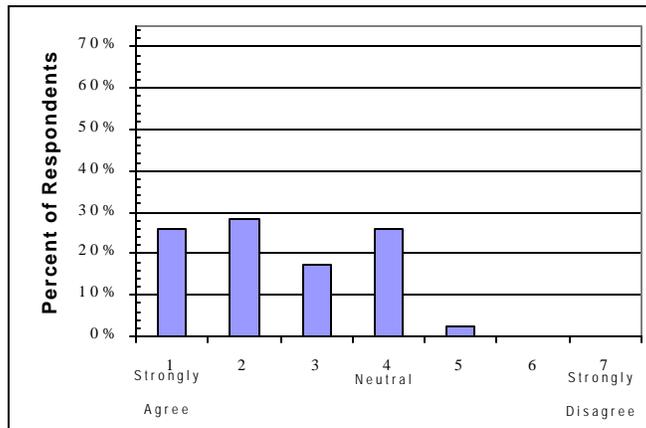


Figure 26. Responses to the Assertion That IRP Submission Via the Internet Will Make Application Easier

In a break from the trend towards agreement with the first two assertions, respondents were not split over whether electronic payment transfer would make the credentialing process more efficient. As can be seen in **figure 27**, only 47 percent of respondents agreed that electronic transfer of IRP payments would be more efficient. This trend was seen for all four credentials.

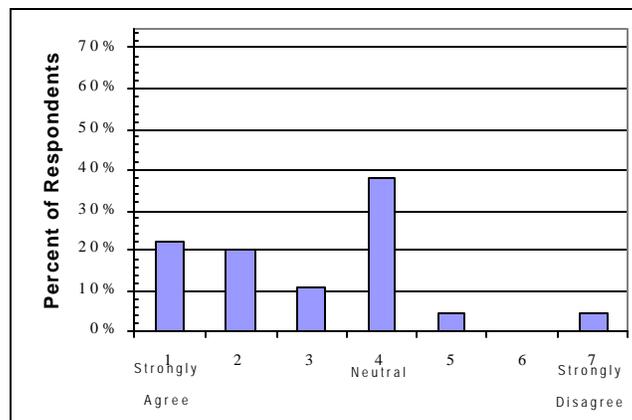


Figure 27. Electronic Transfer of IRP Payment Will Be More Efficient

There was very strong agreement, however, that instant, on-site printing of the various credentials would be an improvement over the current process. As shown in **figure 28**, 83 percent of the respondents agreed to this assertion in the case of the IRP. Similar high rates of agreement were found for the other credentials.

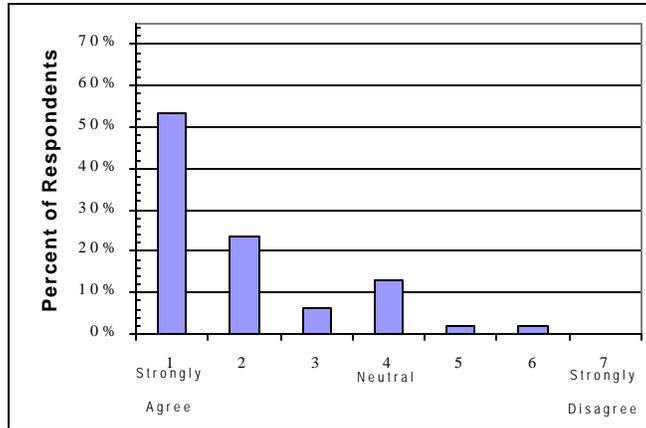


Figure 28. Instant Printing of the Approved IRP Credential Will Be Better

For the IRP, a temporary authority is required between the time an IRP credential is applied for and the permanent authority is received. As shown in **figure 29**, respondents overwhelmingly agreed with the assertion that instant; on-site printing of the temporary authority would be an improvement over the current procedure.

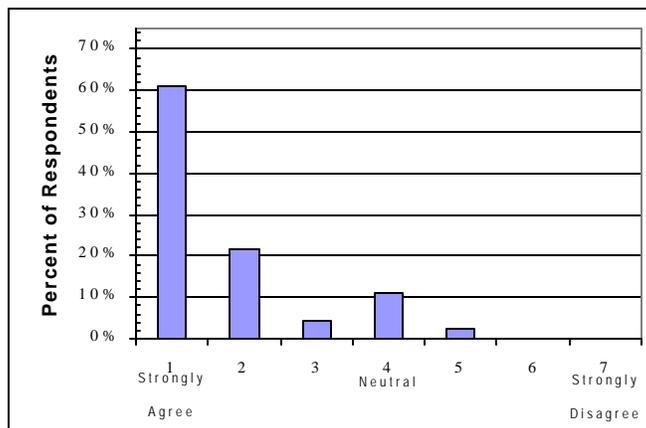


Figure 29. Instant Printing (at Your Site) of IRP Temporary Authority Will Be Better

Respondents were told that forms for all credentials would be filled in advance with information they had provided. For instance, they were told that the information provided for a tractor or trailer in a previous year will be filled in on the new application, and that information from one credential application (such as the IRP) will transfer to the appropriate fields on other applications. As an example, it was suggested that if the respondent had added a new VIN in an IRP application, applications would be generated for IFTA, SSRS, and HUT with that same VIN (and associated information).

They were then asked whether they agreed that:

- *Having pre-filled fields make the application process more efficient*

- *Having pre-filled fields would not save much time*
- *Having pre-filled fields would lead to more errors.*

As shown in **figure 30**, the majority of respondents strongly agreed that pre-filled fields would make the process more efficient.

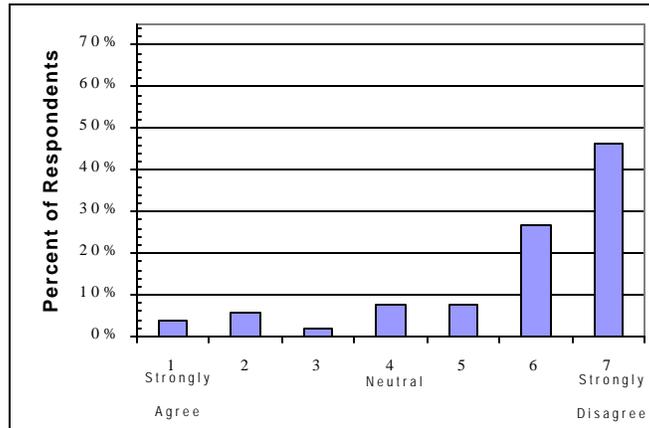


Figure 30. Having Pre-Filled Fields Would Make the Application Process More Efficient (n = 53)

As shown in **figure 31**, the respondents strongly disagreed with the assertion that having pre-filled fields would not save much time.

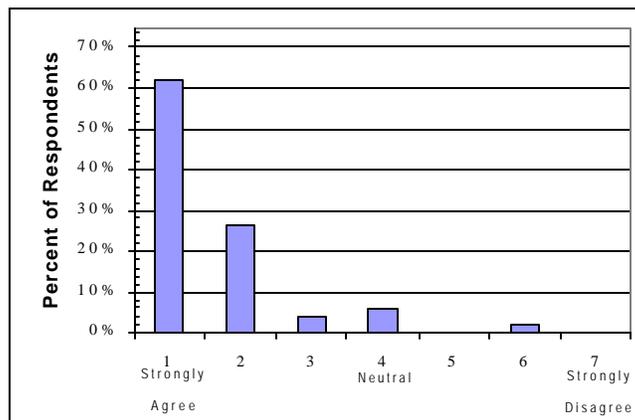


Figure 31. Pre-Filled Fields Would Not Save Much Time

However, as shown in **figure 32**, a large number of respondents were concerned about the possibility of increased errors with the use of pre-filled fields. This suggests that acceptance of Internet credentialing may depend on how carefully the developers provide methods for error checking and use consistency checks to validate entries.

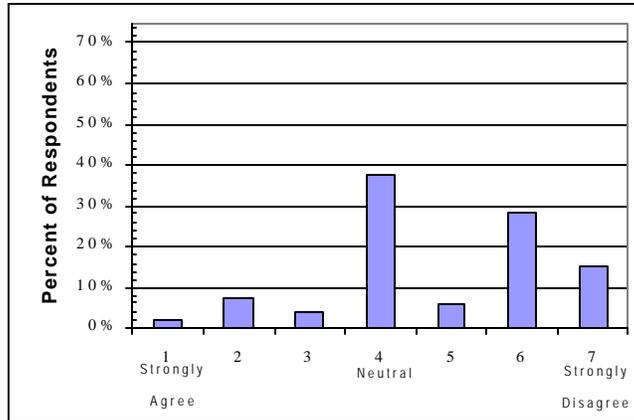


Figure 32. Pre-Filled Fields Would Lead to More Errors

The next few questions attempted to determine the degree of resistance there might be to Internet credentialing, either because of opinions regarding the Internet or of technology in general. Respondents were asked about their agreement with the following assertions:

- *The Internet is not secure; the information we provide might become available to enforcement agencies or our competitors.*
- *My firm will use electronic credentialing once we are assured that enforcement agencies and our competitors will not have access to the data we supply.*
- *My firm does not use computers.*

The responses to these assertions suggest that there are indeed some concerns about Internet security that should be addressed as part of the deployment. As shown in **figure 33**, 46 percent agreed that the Internet is not secure and might leave company data open to others.

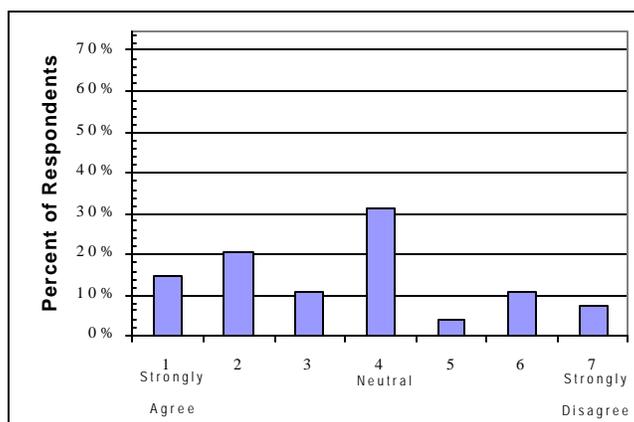


Figure 33. Internet Security Might Jeopardize Company Information

As shown in **figure 34**, 60 percent of respondents agreed that their firms would use electronic credentialing once their security concerns had been satisfied.

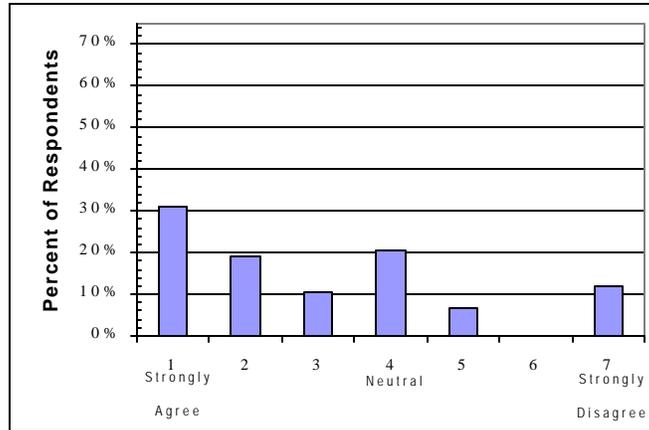


Figure 34. The Respondent’s Firm Would Use Electronic Credentialing Once Security Assurances Were Provided

The widespread acceptance of technology was indicated by the responses to the assertion that “my firm does not use computers.” As shown in **figure 35**, only 20 percent of respondents agreed with this assertion, and 74 percent strongly disagreed with it.

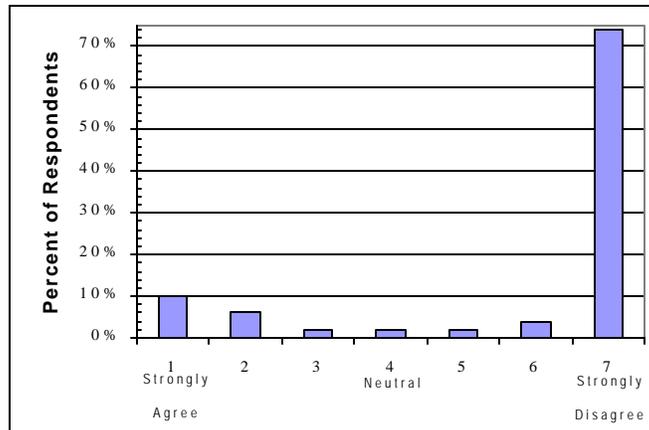


Figure 35. My Firm Does Not Use Computers

The final rating question addressed whether electronic credentialing was perceived as making the overall trucking operation more efficient. Respondents were asked about their agreement to the assertion that “instant printing (at your site) of approved credential will get vehicles on the road sooner.” As shown in **figure 36**, most of the respondents agreed with this assertion—67 percent of them strongly.

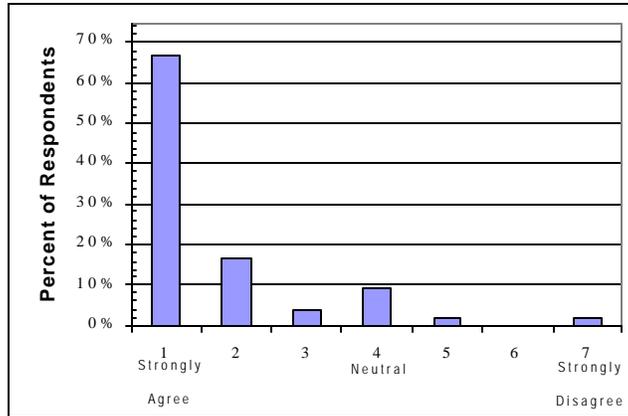


Figure 36. Instant Printing of Approved Credential Will Get Vehicles on the Road Sooner

Although the sample size for this survey was relatively small, an attempt was made to find trends in the responses that might be related to the size of the carrier, the number of years the respondent had been involved in credentialing, or the type of carrier. No consistent trends were observed based on these variables.

Qualitative Results

Respondents were asked several open-ended questions that were intended to detect opinions or concerns regarding the credentialing process that might be missed by the closed form rating scales. The following open-ended items were listed:

- Do you have any other concerns that need to be addressed before your company will use electronic credentialing?
- What do you like about the current registration process that you would not want to be lost with electronic credentialing?
- If you could do anything to improve the current credentialing process, what would it be?
- Please briefly describe the effect the delay between application submittal and credential receipt has on your operation in terms of time-out-of-service and lost revenue opportunity?
- Tell us what you think would be the biggest advantage to an electronic credentialing system.

Because some respondents may have given more than one response to the same item, and others may not have provided additional comments, the discussion here will focus on trends that may add to or enhance trends that were evident in the objective portion of the survey.

1. *Do you have any other concerns that need to be addressed before your company will use electronic credentialing?*

The respondents expressed few concerns. Seven respondents indicated they worried that their firm might lack the hardware or software knowledge to easily adopt electronic credentialing.

Seven respondents expressed concern that online payments might not be secure. No other concerns were expressed by more than two respondents.

- 2. What do you like about the current registration process that you would not want to be lost with electronic credentialing?*

Seven respondents wrote “nothing” in response to this question. No other response was common among more than two respondents. Two respondents indicated that everything about the current process was fine except the slow response time, and two respondents indicated they would miss the personal contact with IRP representatives.

- 3. If you could do anything to improve the current credentialing process, what would it be?*

Nine respondents indicated that the current process would be most improved if processing was faster and more efficient. In a similar vane, four respondents indicated that simplifying, streamlining, and reducing the number of forms would be a help. Five indicated that more payment options would be better (e.g., credit card, check), and five respondents indicated that they would like to be able to process their credentials at their local DMV. In contrast to the two individuals who said they would miss the personal contact with IRP representatives (if they went to electronic credentialing), three individuals indicated that the improving the attitudes of arrogant and uncooperative IRP agents would improve the current process.

- 4. Describe the effect the delay between application submittal and credential receipt has on your operation.*

Eleven respondents indicated that the delays in the current process are merely an inconvenience. Seven respondents indicated that the delays have no effect on revenue or operations time. In contrast to these responses, six respondents indicated that the delays caused trucks to sit idle; three indicated that the delays reduce revenue, and three indicated that the delays increase costs. Thus opinions were mixed on whether the delays inherent in the current system affect operations or profitability.

- 5. What would be the biggest advantage to an electronic credentialing system?*

The responses to this question could well summarize the most consistent finding from the entire survey—electronic credentialing is expected to save time. More than half of the respondents—28—indicated that the biggest advantage of electronic credentialing would be saving time. Four respondents thought that electronic credentialing would reduce errors or increase accuracy. No other response was common among two or more respondents.

Conclusions

Many of the comments and responses on this survey indicate that the largest benefit expected from electronic credentialing is a reduction in the amount of time required to obtain the IRP credential. Among the other credentials, only the HUT was viewed as being too time consuming by a plurality of the respondents, but this expression was not nearly as strong it was for the IRP. It would appear that the extent to which IRP electronic credentialing actually saves time would have the strongest overall influence on customer acceptance of electronic credentialing.

The questions regarding online credentialing indicate that there is little resistance to the concept and that most of the users foresee benefits in timesaving, accuracy, and efficiency. The lack of a trend as a function of carrier size suggests that carrier size will not be a factor in customer acceptance of electronic credentialing.

Because the only 14.25 percent of the surveys were returned, there is a possibility that the respondents in this survey are not representative of New York Motor Truck Association membership as a whole. However, this questionnaire return state is not atypical, and there was nothing in the questionnaires that were returned to suggest obvious response biases.