Tracking State Deployments of Commercial Vehicle Information Systems and Networks

1998 National Report

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Version 1.0

EXECUTIVE SUMMARY

Commercial Vehicle Information Systems and Networks (CVISN) is the collection of information systems and communication networks that support commercial vehicle operations (CVO.) The National ITS Architecture provides a technical framework that describes how ITS elements fit together into an overall system. The CVISN Architecture is the ITS/CVO information systems portion of the National ITS Architecture. It is not a new information system, but rather a way for existing and newly-designed systems to exchange information through the use of standards and available communications infrastructure. CVISN includes information systems owned and operated by federal and state governments, motor carriers, and other stakeholders. CVISN will enable government agencies, the motor carrier industry, and other parties engaged in CVO safety and regulation to exchange information and conduct business transactions electronically.

The Transportation Equity Act for the 21st Century (TEA-21) established a goal for a majority of states to deploy CVISN by September 30, 2003. The Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) are commited to work with any state interested in CVISN deployment to integrate its CVO information systems that support safe and seamless commercial transportation throughout North America. These systems will provide high-quality, timely, and easily-accessible information to authorized users.

In order to track progress toward the goal to improve program planning, the ITS Joint Program Office (ITS/JPO) of the USDOT is surveying state governments in the deployment of both CVISN Level One and other capabilities in all fifty states and the District of Columbia through the year 2005. This document for 1998 is the second summary and analysis of data.

There are three primary CVISN components: Credential Administration, Safety Information Exchange, and Roadside Electronic Screening. The initial operating systems and those systems that provide the initial operating capabilities of CVISN are referred to as Level One deployments. Currently CVISN focuses on the following areas of ITS/CVO:

C   *Credential Administration* facilitates electronic application, processing, fee collection, and issuance and distribution of CVO credentials, and supports base state agreements and CVO tax filing and auditing.

C   *Safety Information Exchange* facilitates automated collection of information on safety performance and credentials status, improved access to carrier and vehicle safety and credentials information, and proactive updates of carrier and vehicle snapshot data.

C   *Roadside Electronic Screening* facilitates screening of vehicles that pass roadside inspection stations. Screening applications may be based on identifiers read from the transponder, correlated with snapshot safety/credential information or manual identifiers linked to credential or safety information, which aid in determining whether further inspection or verification of credentials is required. Screening applications may also include weigh-in-motion (WIM) or automatic vehicle classifications systems that flag vehicles for static weight or credential checks.

CVISN Credential Administration applications include applying for, processing, and granting CVO credentials. CVISN Level One capabilities for credential administration are end-to-end electronic processing for International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP,) and connection to the IFTA and IRP Clearinghouses. The CVISN Level One deployment goal is for at least 10% of the transaction volume for the IFTA and IRP credentials to be handled electronically.

Safety Information Exchange applications are supported by a national infrastructure that includes the Safety and Fitness Electronic Record (SAFER) and the FMCSA Motor Carrier Management Information System (MCMIS) database. The communication and information standards are consistent with federally-sponsored software such as ASPEN and state SafetyNet systems, which have been widely deployed by the Motor Carrier Safety Assurance Program (MCSAP). Level One capabilities are connection to SAFER and the development of a state Commercial Vehicle Information Exchange Window (CVIEW) system (or equivalent) to support the exchange of snapshot data within the state or to other states. Level One deployment also calls for the use of ASPEN or an equivalent system at all major inspection sites to support the electronic exchange of roadside inspection information.
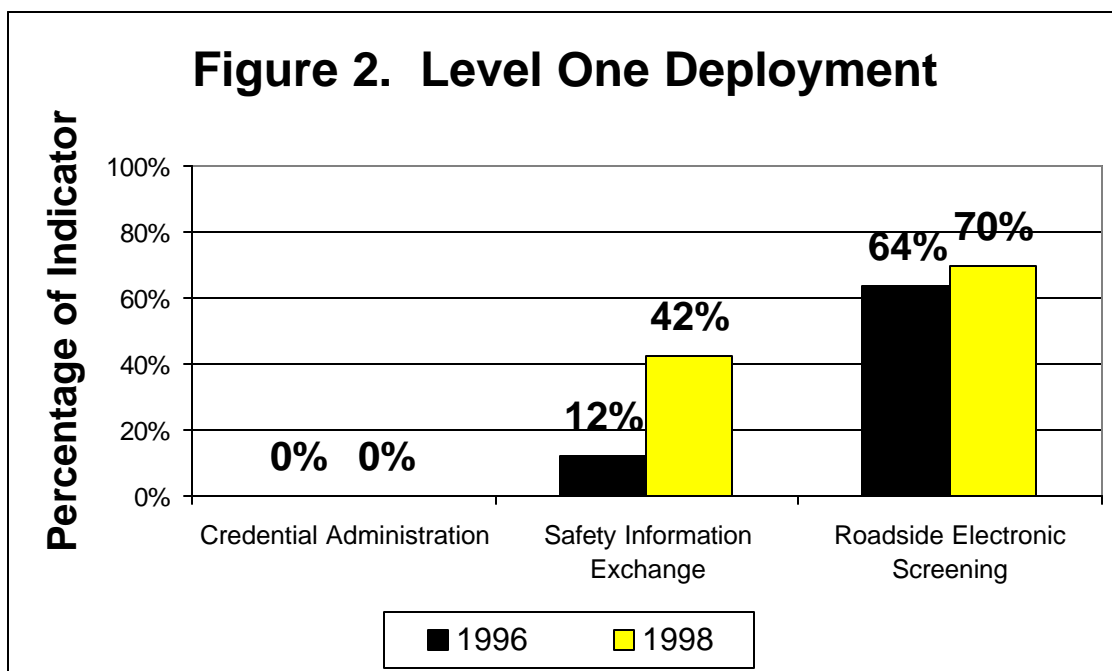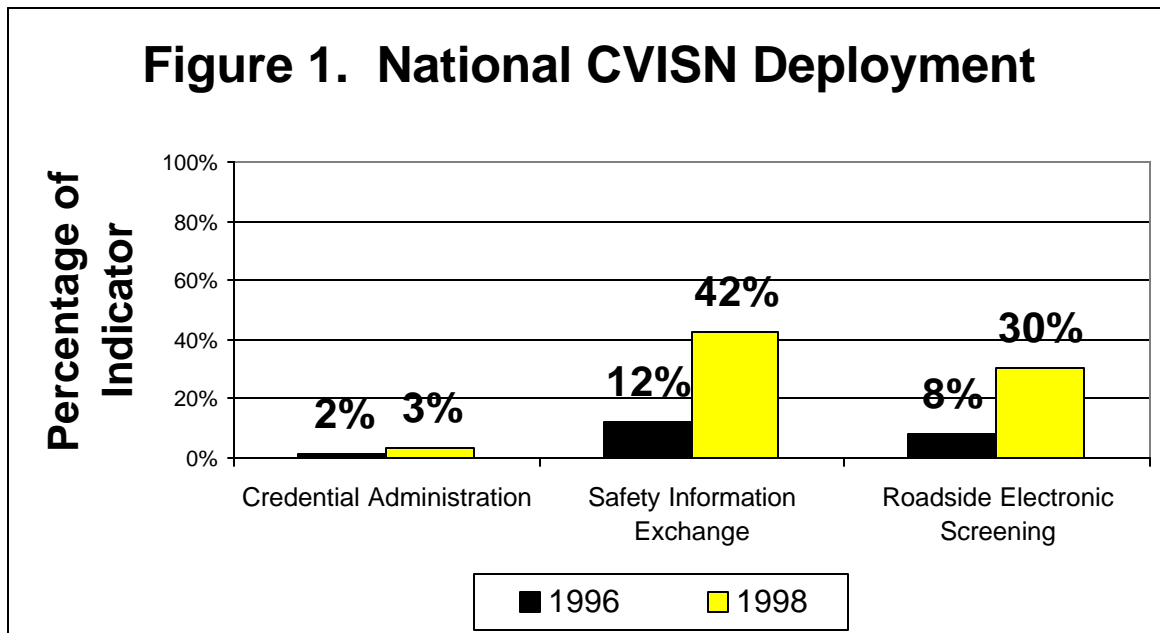
Roadside Electronic Screening will allow states to share weight, safety, and credential information, and carriers to subscribe to multiple roadside electronic screening applications with a single technology. Level One capabilities call for electronic screening to be implemented at a minimum of one fixed or mobile inspection site, and ready to be replicated at other sites.

Indicators of total deployment in 1996 and 1998 for each of the three CVISN components are shown in Figure 1. Level One measures are displayed in Figure 2. Detailed definitions and calculations are included in Tables 1 and 2 in the body of the report. The total level of deployment is a percentage of the total deployment opportunity for the responding states, and the Level One deployment is the measure of deployment against Level One deployment goals. The total deployment opportunity assumes that all processes or locations in a state are using the relevent CVISN technologies to the maximum extent possible. It goes beyond the short term goal of Level One.

Deployment of all three CVISN components increased between 1996 and 1998. Safety Information Exchange remains most prevalent, followed by Roadside Electronic Screening. Level One deployment remains most common for Roadside Electronic Screening, followed by Safety Information Exchange. There was no Level One Credential Administration deployment in either 1996 or 1998. The different results from the national deployment indicators and the Level One indicators derive from different definitions. Although Safety Information Exchange calculates national and Level One indicators in the same manner, the other two CVISN components differ in their national and Level One indicators.

The national indicator for Roadside Electronic Screening is calculated by comparing the number of vehicles screened electronically to the total number of vehicles screened or inspected. Level One deployment of Roadside Electronic Screening requires at least one fixed facility or mobile unit equipped for electronic screening and readiness to deploy more. The Level One indicator calculates the percentage of states that have at least one fixed facility or mobile unit equipped. The states were not asked about readiness to deploy more, so that information is not included in the indicator.

The national indicator for Credential Administration is the percent of administrative processes conducted electronically. The Level One indicator measures the progress toward the goal of 10% of all IFTA and IRP processes conducted electronically by states conforming with the CVISN architecture and participating in the IFTA and IRP Clearinghouses. The additional requirements have precluded any states from attaining Level One for Credential Administration, although there have been increases in administrative processes conducted electronically.

Figure 1. National CVISN Deployment

Percentage of Indicator

- Credential Administration: 1996 = 2%, 1998 = 3%
- Safety Information Exchange: 1996 = 12%, 1998 = 42%
- Roadside Electronic Screening: 1996 = 8%, 1998 = 30%

Legend: ■ 1996 □ 1998

Figure 2. Level One Deployment

Percentage of Indicator

- Credential Administration: 1996 = 0%, 1998 = 0%
- Safety Information Exchange: 1996 = 12%, 1998 = 42%
- Roadside Electronic Screening: 1996 = 64%, 1998 = 70%

Legend: ■ 1996 □ 1998

Credential Administration

Figure 3 illustrates the percentage of applications and permits/credentials issued that were conducted electronically in the given year for each of the following credentials: IFTA, IRP, Intrastate Registration, Single State Registration System (SSRS), and Oversize/Overweight (OS/OW). OS/OW credential issuance remains the most common administrative process performed electronically. Close to 10% of OS/OW credentials issued in 1998 were issued electronically, almost twice the rate of electronic issuance in 1996 for that credential. Electronic issuance of IRP credentials increased to over 6%. Electronic applications for all credentials increased from 1996 to 1998, but remain at relatively low levels. Electronic issuance of credentials besides OS/OW and IRP increased from 1996 to 1998, but remained below 1% of all credentials issued.

Figure 3. Credential Administrative Processes Conducted Electronically in 1996 and 1998
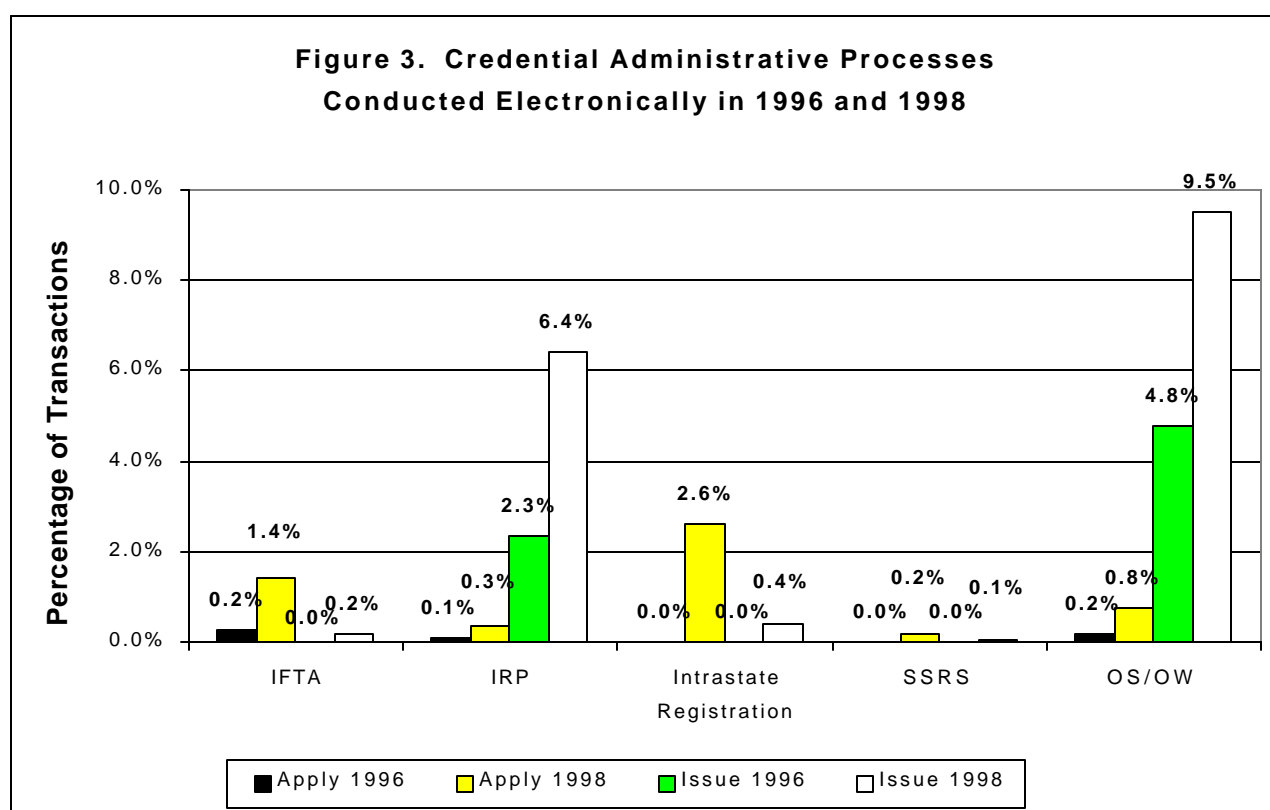
Safety Information Exchange

Figure 4 illustrates (a) the percent of states in 1996 and 1998 that electronically collected inspection data from the roadside and uploaded it to SafetyNet or an equivalent system, and (b) the percent of all fixed, mobile, and other inspection stations on a national basis, that had computer access to safety information. Electronic collection and uploading of data increased moderately between 1996 and 1998, while inspection facilities with computer access to safety information showed a more marked increase. In 1996, 59% of states conducted electronic collection and uploading of safety data, increasing to 69% in 1998. Facilities with computer access to safety information increased from 12% to 42%.

Figure 4. States and Inspection Facilities With The Capability of Accessing, Collecting, and Uploading Inspection Data in 1996 and 1998
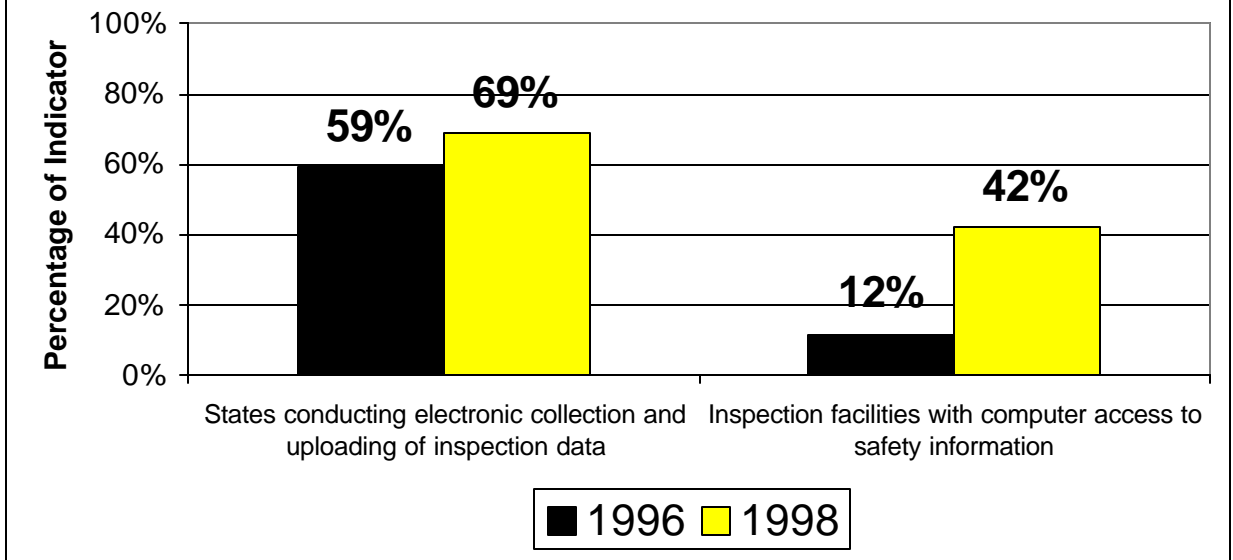
Roadside Electronic Screening

Figure 5 and Figure 6 illustrate (a) the percent of all fixed, mobile, and other inspection stations, that were using electronic screening at mainline or non-mainline speeds, and (b) the percent of all vehicle screenings that were done electronically at mainline or non-mainline speeds. Both mainline and non-mainline screening increased between 1996 and 1998. About double the number of inspection facilities had the ability to conduct electronic screening in 1998 compared to 1996. The percentage of vehicles screened electronically increased even more dramatically. The percentage of vehicles undergoing mainline screening increased from 1% to 6%, while non-mainline screening increased from 7% to 24%.

Figure 5. Inspection Facilities With The Ability To Conduct Electronic Screening in 1996 and 1998
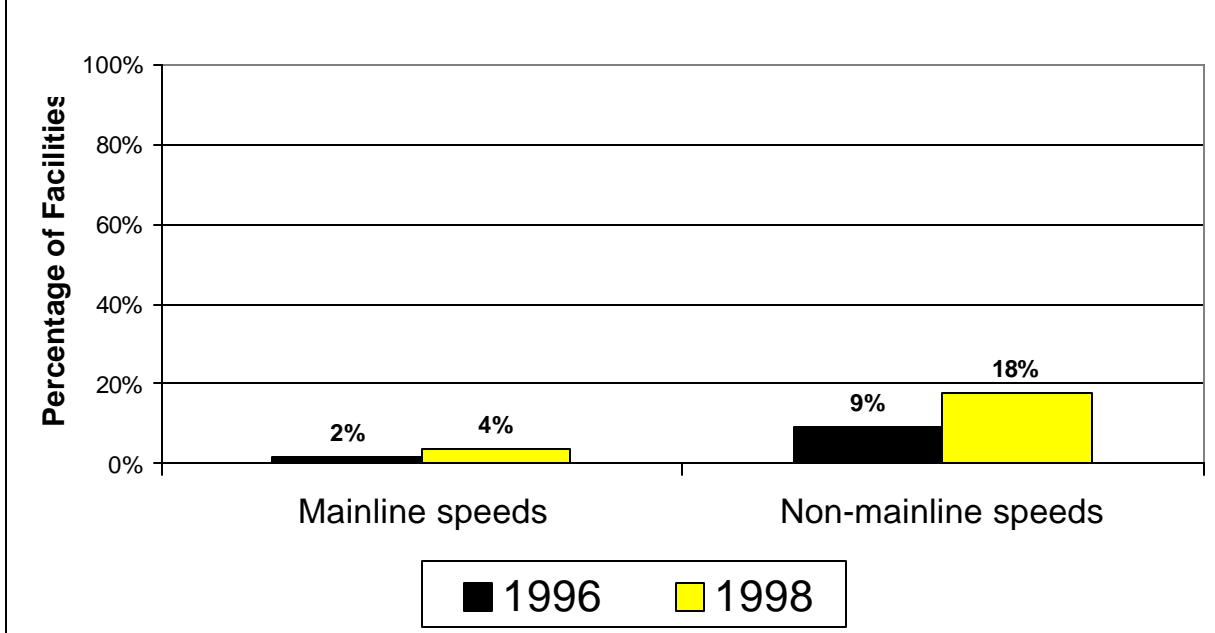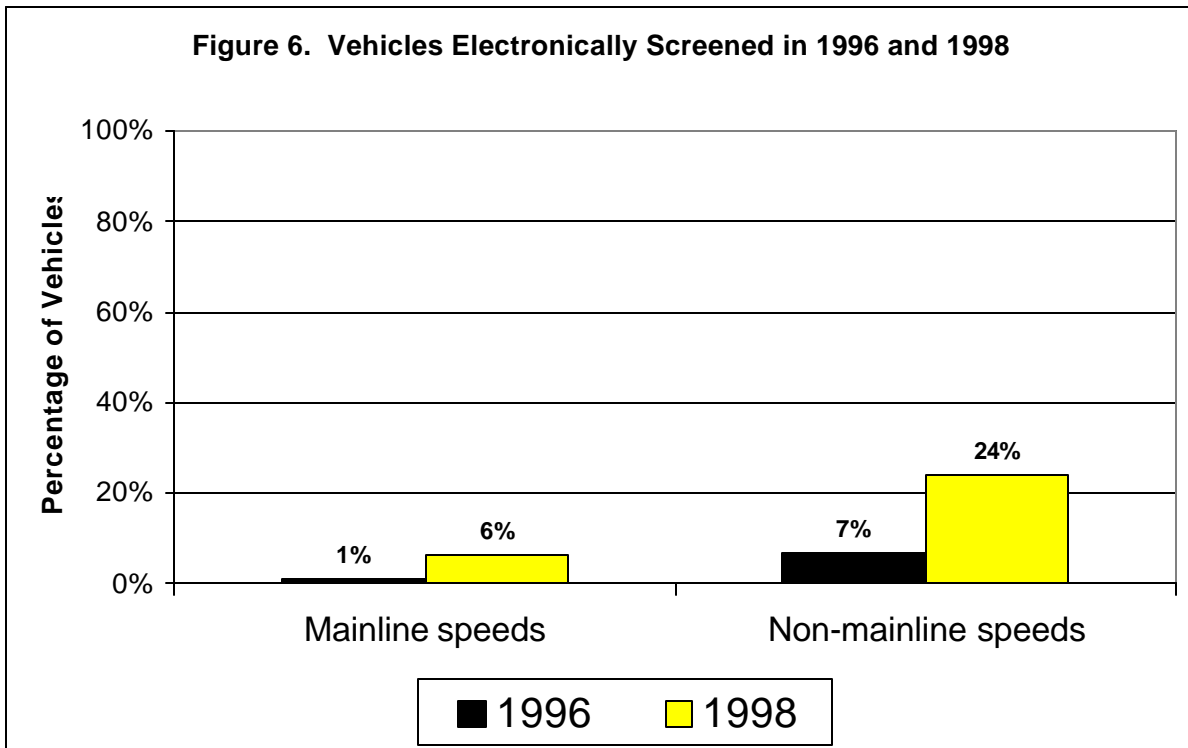

Figure 6. Vehicles Electronically Screened in 1996 and 1998

Level One Deployment

The TEA-21's CVISN deployment goal is for a majority of states to deploy Level One CVISN capabilities by September 30, 2003. Table 8 presents the national deployment levels of these

capabilities. The definitions of Level One Deployment are listed in the "CVISN Level One Deployment" column below.

Table 8. Level One Deployment: National for 1996 and 1998

		Percent of Responding States with Level One Deployment Capabilities in 1996 (out of 36 states)	Percent of Responding States with Level One Deployment Capabilities in 1998 (out of 48 states & DC)
Credential Administration	*End-to-End IRP and IFTA Processing*	3%	0%
	Connection to IRP and IFTA Clearinghouses	0%	4%
Safety Information Exchange	*ASPEN or Equivalent*	64%	79%
	Connection to SAFER	0%	30%
	CVIEW or Equivalent	0%	2%
Roadside Electronic Screening	*One or More Fixed or Mobile Sites Equipped for Electronic Screening*	64%	68%

Future deployment

It is possible to extrapolate states' future CVISN presence and plans. In order to do so, certain assumptions were made, which may make the projection somewhat conservative. The major assumptions are that the future status of a state depends only on the current status and on transition probabilities that remain constant over time. The transition probabilities were derived by taking the responses of states that gave definite answers to the relevant questions in both 1996 and 1998 and calculating the percentages that moved from one category to another.

Because "undecided" was not an allowed response in 1996, states were placed in four categories for each CVISN capability:
- CVISN present and planned
- CVISN present and not planned
- CVISN not present, but planned
- CVISN not present and not planned

The resulting extrapolations of state involvement in CVISN are not specifically targeted at predicting achievement of Level One by states; there is not yet enough information to be that specific. Instead, these extrapolations use the lower standard of whether or not the states have deployed at all or have plans to deploy. In support of meeting the Congressional goal for CVISN deployment, there are some observations that can be made with respect to the projections.

- The high percentage of states with plans but no deployment of Credential Administration may be an opportunity for FMCSA and FHWA to provide technical assistance that could have a major effect. While designing any additional outreach, it is important to gain a clearer

understanding of why Credential Administration attracts interest, but is slow to progress to deployment.

- Safety Information Exchange appears to be on track for almost all states having some portion deployed by 2005. Considering current patterns, some aspects may progress more slowly than others, so for instance use of inspection software may be more widespread than computer access to safety information.

- Deployment of Roadside Electronic Screening appears to be progressing steadily, but at a somewhat slower pace than Safety Information Exchange.

- For all CVISN capabilities, states that have already deployed want to add to their systems. Roadside Electronic Screening is the only capability where the category of present and not planned is growing over time.

1.1 OVERVIEW

Commercial Vehicle Information Systems and Networks (CVISN) is the collection of information systems and communication networks that support commercial vehicle operations (CVO.) The National ITS Architecture provides a technical framework that describes how ITS elements fit together into an overall system. The CVISN Architecture is the ITS/CVO information systems portion of the National ITS Architecture. It is not a new information system, but rather a way for existing and newly-designed systems to exchange information through the use of standards and available communications infrastructure. CVISN includes information systems owned and operated by federal and state governments, motor carriers, and other stakeholders. CVISN will enable government agencies, the motor carrier industry, and other parties engaged in CVO safety and regulation to exchange information and conduct business transactions electronically.

The Transportation Equity Act for the 21st Century (TEA-21) established a goal for a majority of states to deploy CVISN by September 30, 2003. The Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) are commited to work with any state interested in CVISN deployment to integrate its CVO information systems that support safe and seamless commercial transportation throughout North America. These systems will provide high-quality, timely, and easily-accessible information to authorized users.

There are three primary CVISN components: Credential Administration, Safety Information Exchange, and Roadside Electronic Screening. The initial operating systems and those systems that provide the initial operating capabilities of CVISN are referred to as Level One deployments. The specific components of CVISN and the systems and capabilities that form Level One deployment are described in detail in later sections of this report.

The FMCSA strategy for new states embarking on CVISN Level 1 deployment consists of three steps: planning, design and deployment. The states are at various stages of completing Level 1 deployment. Twelve states are in step 1 (planning), 20 states are in step 2 (design), and ten states are in step 3 (deployment). All of the 42 states have completed or are in the process of completing a state ITS/CVO Business Plan.

1.2 BACKGROUND

1.2.1 Approach

In order to track progress toward the goal to improve program planning, the ITS Joint Program Office (ITS/JPO) of the USDOT is surveying state governments in the deployment of both CVISN Level One and other capabilities in all fifty states and the District of Columbia through the year 2005. This document for 1998 is the second summary and analysis of data.

Because the survey design had been established, tested, and used effectively for the 1998 report, there were few changes in this second round of surveys. Three surveys, one for each CVISN component, were sent to each state. Border states received an addendum to the Roadside Electronic Screening survey addressing additional border related issues. The surveys were prefilled with the 1996 state-provided data. The Volpe Center sent the surveys to the FMCSA, which added a cover letter to each before forwarding them to the states through the mail. Upon reports that many states did not receive their surveys, the Volpe Center distributed the survy to those states directly via email, fax, Federal Express, or regular mail.

92% (141 out of 153) of the 1998 surveys were returned to the Volpe Center. The response rate was noticeably higher than in 1996 when 75% responded. Consequently, the comparisons between 1996 and 1998 include additional states in 1998. Appendix B provides a listing of each state's response status for 1998.

1.2.2 CVISN

CVISN refers to the ITS information system elements that support CVO. These information systems are part of the USDOT-sponsored National ITS Architecture, which defines the elements, principles, and standards for the deployment of ITS. Currently CVISN focuses on the following areas of ITS/CVO:

- C   ***Credential Administration*** which facilitates electronic application, processing, fee collection, and issuance and distribution of CVO credentials, and supports base state agreements and CVO tax filing and auditing;

- C   ***Safety Information Exchange*** which facilitates automated collection of information on safety performance and credentials status, improved access to carrier and vehicle safety and credentials information, and proactive updates of carrier and vehicle snapshot data; and

- C   ***Roadside Electronic Screening***, which facilitates screening of vehicles that pass roadside inspection stations. Screening applications may be based on identifiers read from the transponder, correlated with snapshot safety/credential information or manual identifiers linked to credential or safety information, which aid in determining whether further inspection or verification of credentials is required. Screening applications may also include weigh-in-motion (WIM) or automatic vehicle classifications systems that flag vehicles for static weight or credential checks.

The CVISN architecture and standards facilitate individual applications of these ITS/CVO capabilities and include a national infrastructure that supports state initiatives and facilitates sharing of resources and information between the various applications.

CVISN Credential Administration applications include applying for, processing, and granting CVO credentials. CVISN Level One capabilities for credential administration are end-to-end electronic processing for International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP,) and connection to the IFTA and IRP Clearinghouses. The CVISN Level One deployment goal is for at least 10% of the transaction volume for the IFTA and IRP credentials to be handled electronically.

Safety Information Exchange applications are supported by a national infrastructure that includes the Safety and Fitness Electronic Record (SAFER) and the FMCSA Motor Carrier Management Information System (MCMIS) database. Additionally, the communication and information standards are consistent with federally-sponsored software such as ASPEN and state SafetyNet systems, which have been widely deployed by the Motor Carrier Safety Assurance Program (MCSAP). Level One capabilities call for connection to SAFER and the development of a state Commercial Vehicle Information Exchange Window (CVIEW) system (or equivalent) to support the exchange of snapshot data within the state or to other states. Level One deployment calls for the use of ASPEN or an equivalent system at all major inspection sites to support the electronic exchange of roadside inspection information.

Roadside Electronic Screening will be supported by a national standard for dedicated short-range communication (DSRC) as well as other aspects of interoperability and electronic data interchange (EDI) standards. These standards will allow states to share weight, safety, and credential information, and carriers to subscribe to multiple roadside electronic screening applications with a single technology investment. Level One deployment and capabilities call for electronic screening to be implemented at a minimum of one fixed or mobile inspection site, and ready to be replicated at other sites.

1.3 CVISN DEPLOYMENT TRACKING SURVEY

The deployment tracking survey was used to assess the CVISN deployment indicators as well as to obtain information that will support the understanding and application of CVISN deployments. Survey questions assessed state conformance to CVISN Architectural Guidelines, the use of vendor-developed and managed software and state-developed software, the use of federally-developed software, and the proximity of CVISN and potential CVISN Roadside Electronic Clearance deployments to international border crossings.

Other CVISN applications include similar deployments for intrastate registrations and Oversize/Overweight (OS/OW) permitting and titling. Also, end-to-end processing functionality should be ready to extend to other credentials such as intrastate registration, titling, OS/OW and hazardous materials permitting.

A copy of the survey is located in Appendix A, a summary of the states responding to the survey is in Appendix B, and Appendix C shows CVISN Level One deployment by state for 1998.

2. Survey Results

48 states and the District of Columbia completed at least one of the three portions of the survey. Because several agencies within each given state may have been responsible for different CVISN aspects, each state may not have returned all portions of the survey; 43 states completed all three portions. In some cases, survey respondents skipped questions on their returned surveys. The survey results reported summarize all responses received.

2.1 NATIONAL OVERVIEW

2.1.1 National CVISN Deployment Levels

In order to provide a brief overview of the nationwide CVISN deployment, indicators of total deployment in 1996 and 1998 for each of the three CVISN components are shown in Figure 1. This can be compared to the CVISN Level One measures displayed in Figure 2. The total level of deployment is shown as a percentage of the total deployment opportunity for the responding states, and the Level One deployment is the measure of deployment against Level One deployment goals. Tables 1 and 2 present the specific calculations used for creating the graphs.

Deployment of all three CVISN components increased between 1996 and 1998. Safety Information Exchange remains most prevalent, followed by Roadside Electronic Screening. Considering only Level One deployment, the picture is slightly different. Level One deployment remains most common for Roadside Electronic Screening, followed by Safety Information Exchange. There was no Level One Credential Administration deployment in either 1996 or 1998.

The differences between the picture painted by the national deployment indicators and the Level One indicators reflect the differences in their definitions. Although Safety Information Exchange calculates national and Level One indicators in the same manner, the other two CVISN components differ in their national and Level One indicators.

The national indicator for Roadside Electronic Screening is calculated by comparing the number of vehicles screened electronically to the total number of vehicles screened or inspected. Level One deployment of Roadside Electronic Screening requires at least one fixed facility or mobile unit equipped for electronic screening and readiness to deploy more. The Level One indicator calculates the percentage of states that have at least one fixed facility or mobile unit equipped. The states were not asked about readiness to deploy more, so that information is not included in the indicator.

The national indicator for Credential Administration is a calculation of the percent of administrative processes conducted electronically. The Level One indicator is more stringent. It measures the progress toward the goal of 10% of all IFTA and IRP processes conducted electronically by states conforming to the CVISN architecture and

participating in the IFTA and IRP Clearinghouses. Considering these additional requirements no states have attained CVISN Level One for Credential Administration, although there have been increases in administrative processes conducted electronically.

Figure 1. National CVISN Deployment

Percentage of Indicator

- Credential Administration: 1996: 2%, 1998: 3%
- Safety Information Exchange: 1996: 12%, 1998: 42%
- Roadside Electronic Screening: 1996: 8%, 1998: 30%

■ 1996   □ 1998

Figure 2. Level One Deployment

Percentage of Indicator

- Credential Administration: 1996: 0%, 1998: 0%
- Safety Information Exchange: 1996: 12%, 1998: 42%
- Roadside Electronic Screening: 1996: 64%, 1998: 70%

■ 1996   □ 1998

Table 1. CVISN Total Deployment Levels in 1996 and 1998, Measurement of Indicators

Y-Axis Category	Description	Method of Measurement	1996 Value	1998 Value
Credential Administration	Percent of all administrative processes that were conducted electronically in the given year	Numerator: Total number of applications submitted plus the number of permits or credentials issued electronically for Oversize/Overweight, Single State Registration, International Registration Plan, International Fuel Tax Agreement, and Intrastate Registration	282,647	897,545
		Denominator: Total number of applications submitted plus the number of permits or credentials issued for Oversize/Overweight, Single State Registration, International Registration Plan, International Fuel Tax Agreement, and Intrastate Registration	17,556,599	27,881,239
		Value:	1.6%	3.2%
Safety Information Exchange	Percent of all inspection sites with the capability of electronically uploading and downloading safety information in the given year	Numerator: Total number of mobile, fixed, and other inspection facilities equipped with ASPEN or equivalent system	443	1,913
		Denominator: Total number of mobile, fixed, and other inspection facilities	3,740	4,509
		Value:	11.8%	42.4%
Roadside Electronic Screening	Percent of all vehicles that were scanned electronically for credential, safety, or weight status in the given year	Numerator: Total number of commercial motor vehicles screened electronically for credential, safety, or weight status	15,893,537	44,898,928
		Denominator: Total number of commercial motor vehicles screened or inspected for credential, safety, or weight status	199,295,504	148,380,674
		Value:	8.0%	30.3%

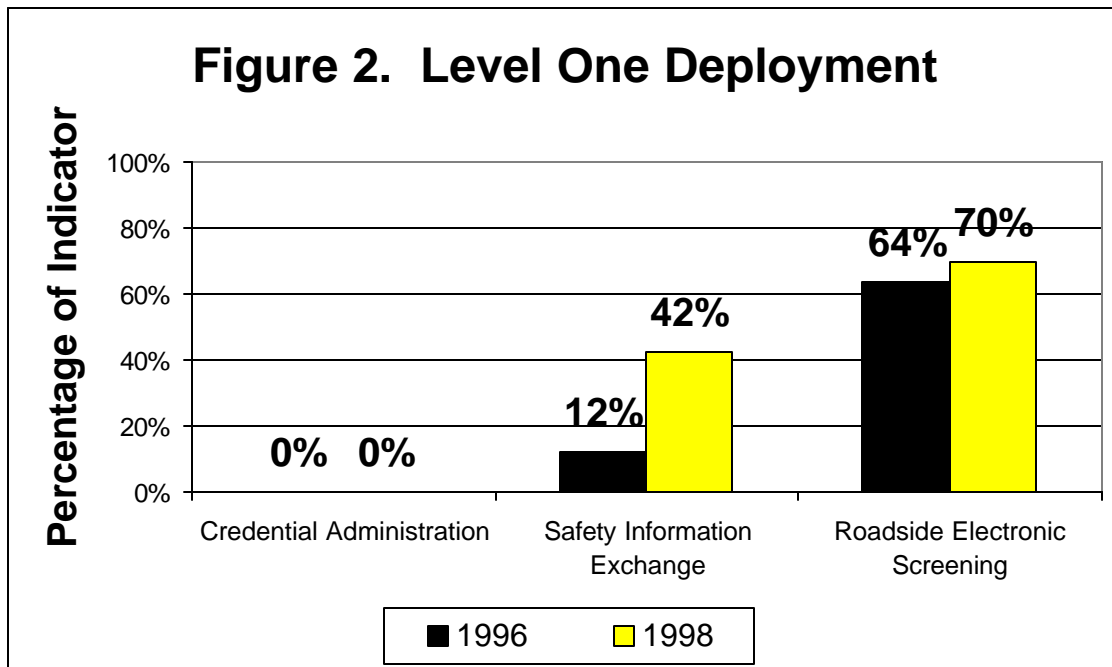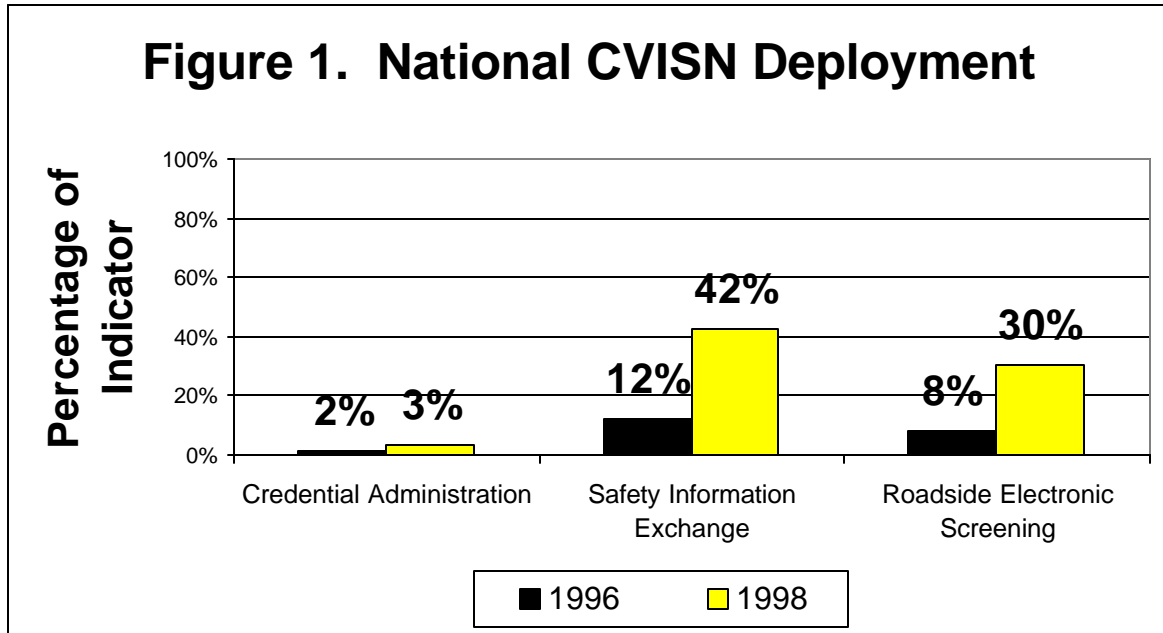**Table 2. CVISN Level One Deployment Levels in 1996 and 1998, Measurement of Indicators**

Y-Axis Category	Description	Method of Measurement	1996 Value	1998 Value
Credential Administration	Percent of the goal of 10% of all IFTA and IRP processes conducted electronically in the given year by states conforming with the CVISN architecture and participating in the IFTA and IRP Clearinghouses	Numerator: Total number of electronic applications submitted plus number of electronic credentials issued for International Registration Plan and International Fuel Tax Agreement (includes only those states who answered yes for #3, #4, #5 in Credential Administration survey)	0	0
		Denominator: 10% of the total number of applications submitted plus number of credentials issued for International Registration Plan and International Fuel Tax Agreement (includes all states which responded to Credential Administration survey)	296894.7	355832.3
		Value:	0.0%	0.0%
Safety Information Exchange	Percent of all inspection sites with the capability of electronically uploading and downloading safety information in the given year	Numerator: Total number of mobile, fixed, and other inspection facilities equipped with ASPEN or equivalent system	443	1,913
		Denominator: Total number of mobile, fixed, and other inspection facilities	3,740	4,509
		Value:	11.8%	42.4%
Roadside Electronic Screening	Percent of states with at least one fixed facility or mobile unit equipped for electronic screening in the given year	Numerator: Total number of states with at least one fixed facility or mobile unit equipped for electronic screening	28	32
		Denominator: Total number of responding states	44	46
		Value:	64%	70%

2.1.2 CVISN Deployment by State Status

The CVISN program has a three step strategy to help states in their efforts to deploy CVISN Level One capabilities:

- Step 1, Planning: completing a business plan and taking training courses
- Step 2, Design: developing project plans
- Step 3, Deployment: deploying the technology

In step 1, a state participates in technical training courses and develops an ITS/CVO State Business Plan. Currently 42 states have either completed or are in the process of completing a plan. Of these states, 37 have accepted plans, two are revising draft plans, and three are working on their first draft plan.

In the second step a state develops its program plans and top level design. They do this over the course of a year with the help of three federally-sponsored workshops. Two prototype and eight pilot states have completed these workshops. By the end of calendar year 2000, 20 more states will have developed their project plans.

The final step to CVISN Level One is actual deployment. By the end of FY 2000, four states are expected to reach Level One. Another two are expected to attain by December of 2001.

Figures 3 and 4 summarize deployment by states in each of these steps as of the autumn of 1999. Calculations of the indicators are as described previously. Table 3 lists states by status in achieving each of the steps to CVISN Level One. The categories are represented in the bar charts and legends reading left to right.

Reading Figure 3 from left to right for each CVISN component, it appears that there is not a strong relationship between how far along states are toward Level One and the overall amount of deployment they have. By contrast, when the states' progress is measured against the goals of the CVISN program using the Level One indicators in Figure 4, there is a greater relationship between steps toward Level One and their deployment of Roadside Electronic Screening. As previously noted, the greater stringency of the Level One indicators for Credential Administration precludes states from having achieved it in 1998.

Figure 3. National CVISN Deployment
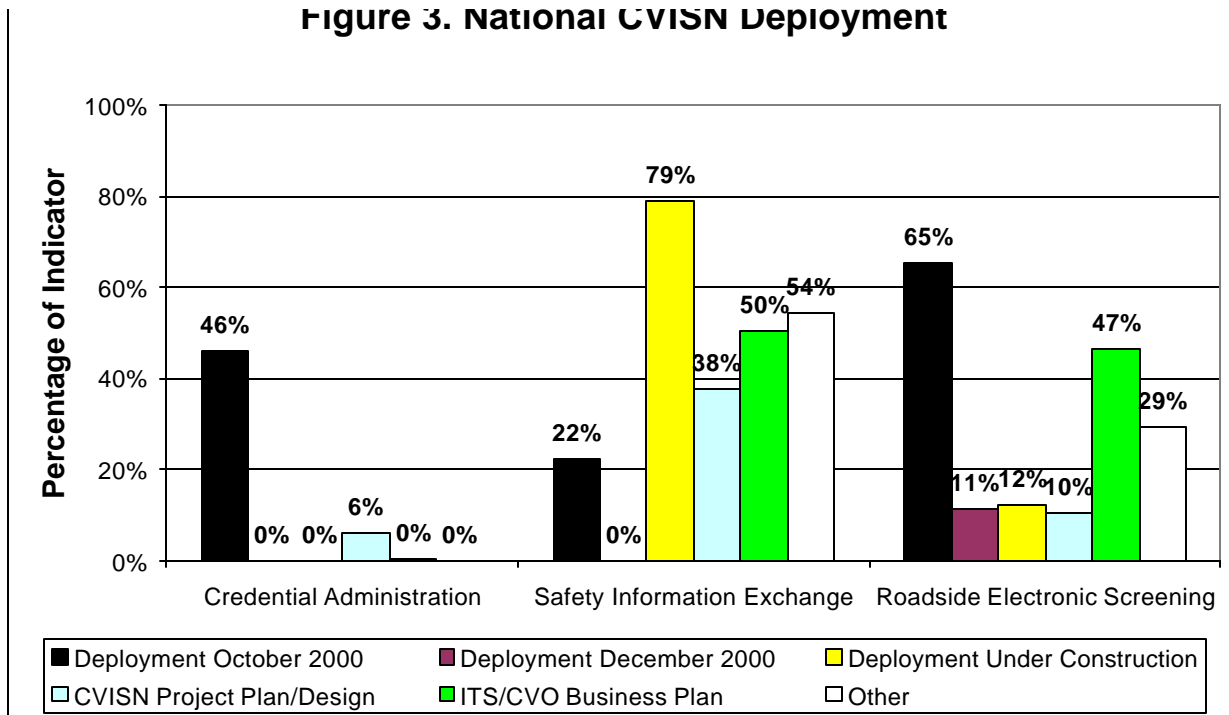
Figure 4. Level One Deployment
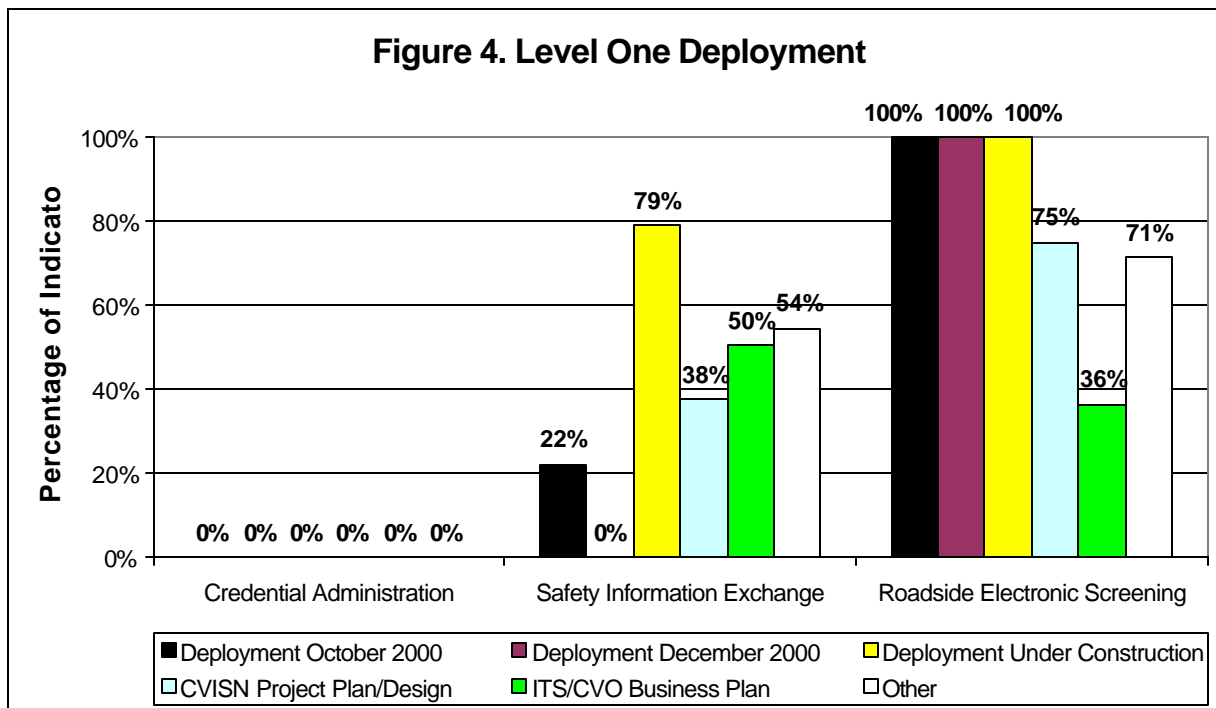
Table 3. States by CVISN Program Status in Fall 1999

State Status	States in Category
Deployment October 2000	Kentucky, Maryland, Virginia
Deployment December 2000	California, Minnesota
Deployment under construction	Colorado, Connecticut, Michigan, Oregon, Washington
CVISN Project Plan/Design	Alaska, Arizona, Georgia, Idaho, Indiana,

State Status	States in Category
	Iowa, Kansas, Massachusetts, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, South Carolina, South Dakota, Tennessee, Utah
ITS/CVO Business Plan	Delaware, Louisiana, Maine, Mississippi, Nevada, North Dakota, Pennsylvania, Rhode Island, Texas, West Virginia, Wisconsin, Wyoming
Other	Alabama, Arkansas, District of Columbia, Florida, Illinois, New Hampshire, Oklahoma, Vermont

2.2 CREDENTIAL ADMINISTRATION

2.2.1 Objectives

The overall objectives of Credential Administration Processes include:

- to allow stakeholders to send, receive, process, and retrieve credentials data electronically;

- to allow carriers, owners, and drivers to apply for, pay for, and receive credentials electronically;

- to support states/regions in the administration of credentials, collecting and distributing funds, and in storage and distribution of credentials-related data; and

- to provide credentials information to enforcement officials and other authorized stakeholders.

2.2.2 Description

State commercial vehicle administrative systems are likely to consist of:

- Driver licensing;
- Titling;
- Registration;
- Fuel Tax Credentialing/Tax Return Processing;
- Oversize/Overweight Permitting; and
- Credentialing Interface.

CVISN applications of credential administration may include electronic facilitation of application submittals, permit and registration issuance, and fee payment for OS/OW, SSRS, IRP, and IFTA credentials.

CVISN Level One deployment goals and capabilities include end-to-end electronic processing of IFTA and IRP credentials, links to the national IFTA and IRP Clearinghouses and 10% of all IFTA and IRP credential administration processes be conducted electronically.

These systems are anticipated to reduce paperwork and processing time for both states and motor carriers. The IFTA and IRP Clearinghouses are data exchange systems that will support IFTA and IRP base state agreements.

2.2.3 Deployment by Type of Transaction

Figure 5 illustrates the percentage of applications and permits/credentials issued that were conducted electronically in the given year for each of the following credentials: IFTA, IRP, Intrastate Registration, SSRS, and OS/OW. Table 4 describes the underlying calculations.

OS/OW credential issuance remains the most common administrative process performed electronically. Close to 10% of OS/OW credentials issued in 1998 were issued electronically, almost twice the rate of electronic issuance in 1996 for that credential. IRP electronic issuance increased to over 6%. Electronic applications for all credentials increased from 1996 to 1998, but remain at relatively low levels. Electronic issuance of credentials besides OS/OW and IRP increased from 1996 to 1998, but remained below 1% of all credentials issued.

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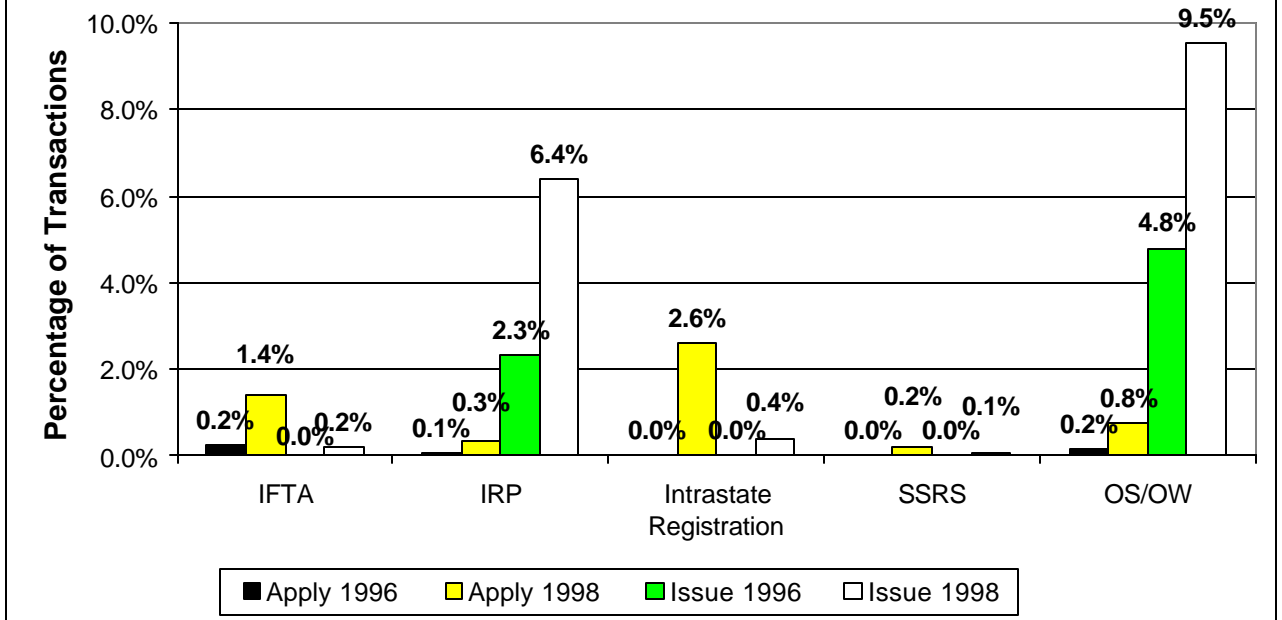
Table 4. Percent of Credential Administrative Processes Conducted Electronically in 1996 and 1998

Y-Axis Category	Description	Method of Measurement	1996 Value	1998 Value
Electronic IFTA Transactions	Percent of IFTA applications and permits/credentials issued that were conducted electronically in the given year	Numerators: Total number of IFTA applications submitted electronically	1,000	1,755
		Total number of IFTA permits/credentials issued electronically	-	1,755
		Denominators: Total number of IFTA applications submitted	410,450	125,579
		Total number of IFTA permits/credentials issued	746,726	960,548
		Values: **% applied electronically**	**0.2%**	**1.4%**
		% issued electronically	**0.0%**	**0.2%**
Electronic IRP Transactions	Percent of IRP applications and permits/credentials issued that were conducted electronically in the given year	Numerators: Total number of IRP applications submitted electronically	279	1,271
		Total number of IRP permits/credentials issued electronically	32,581	134,267
		Denominators: Total number of IRP applications submitted	415,908	374,639
		Total number of IRP permits/credentials issued	1,395,863	2,097,557
		Values: **% applied electronically**	**0.1%**	**0.3%**
		% issued electronically	**2.3%**	**6.4%**
Electronic Intrastate Registration Transactions	Percent of Intrastate Registration applications and permits/credentials issued that were conducted electronically in the given year	Numerators: Total number of Intrastate Registration applications submitted electronically	7	135,263
		Total number of Intrastate Registration permits/credentials issued electronically	0	23,419
		Denominators: Total number of Intrastate Registration applications submitted	1,690,542	5,177,372
		Total number of Intrastate Registration permits/credentials issued	1,831,274	5,789,486
		Values: **% applied electronically**	**0.0%**	**2.6%**
		% issued electronically	**0.0%**	**0.4%**
Electronic SSRS Transactions	Percent of SSRS applications and permits/credentials issued that were conducted electronically in the given year	Numerators: Total number of SSRS applications submitted electronically	12	1,083
		Total number of SSRS permits/credentials issued electronically	12	1,083
		Denominators: Total number of SSRS applications submitted	608,019	562,131
		Total number of SSRS permits/credentials issued	658,450	1,710,984
		Values: **% applied electronically**	**0.0%**	**0.2%**
		% issued electronically	**0.0%**	**0.1%**
Electronic OS/OW Transactions	Percent of OS/OW applications and permits/credentials issued that were conducted electronically in the given year	Numerators: Total number of OS/OW applications submitted electronically	7,379	39,666
		Total number of OS/OW permits/credentials issued electronically	241,377	557,983
		Denominators: Total number of OS/OW applications submitted	4,756,796	5,226,243
		Total number of OS/OW permits/credentials issued	5,042,571	5,856,700
		Values: **% applied electronically**	**0.2%**	**0.8%**
		% issued electronically	**4.8%**	**9.5%**

2.3 SAFETY INFORMATION EXCHANGE

2.3.1 Objectives

The overall objectives of CVISN Safety Information Exchange include:

- to collect, store, and provide access to the identified carrier, driver, and vehicle safety information;

- to improve the effectiveness and efficiency of safety assurance programs;

- to compute and report safety statistics; and

- to aid in focusing safety assurance activities on high-risk carriers.

2.3.2 Description

Safety Information Exchange systems operate at both the national and state level. CVISN applications of Safety Information Exchange include electronic collection of safety inspection data, timely access to current safety information at the roadside and electronic data interface to state national snapshot/profile data.

To achieve safety information exchange objectives, the systems and networks collect, process, and provide access to information on measurable factors indicating high risk carriers and drivers such as safety inspection data, out of service orders and motor carrier snapshot/profile statistics. The information systems inform interested parties of significant changes to relevant data rather than waiting for a specific request for information or overloading them with extraneous information.

The CVISN Level One capabilities and deployment calls for ASPEN or an equivalent system at all major inspection sites, connection to SAFER and the development of a state CVIEW or equivalent system. ASPEN software supports electronic collection, and uploading and downloading of safety inspection data.

SAFER will provide snapshot safety data on vehicles, drivers and carriers to remote users such as state police or commercial vehicle inspectors. These snapshot data may include:

- identification information such as name, address, and operating characteristics;

- safety information such as safety ratings, accident and violation history, and out of service orders; and

- credential information such as registrations, permits, driver records, and IFTA and IRP flags.

The profile data contain more detailed information than the snapshot, but not the complete set of information available, and are used when snapshot data do not provide all the needed information. A State CVIEW or equivalent system will facilitate intrastate snapshot/profile safety data storage and access. Level One CVIEW or equivalent system capabilities include:

- maintaining safety portion of snapshots for carriers and vehicles based in the state from inputs from own-state activities only;

- proactively updating SAFER;

- providing access to intrastate carrier and vehicle snapshots and reports to roadside stations; and

- reporting inspections electronically to SafetyNet.

Improving efficiency will allow more resources to be focused on higher-risk performers. The systems provide statistics necessary to evaluate and refine the safety assurance programs and other CVO programs.

2.3.3 Deployment by Capability

Figure 6 illustrates (a) the percent of states in 1996 and 1998 that electronically collected inspection data from the roadside and uploaded it to SafetyNet or an equivalent system, and (b) the percent of all fixed, mobile, and other inspection stations, that had computer access to safety information. Table 5 describes the underlying calculations.

Electronic collection and uploading of data increased moderately between 1996 and 1998, while inspection facilities with computer access to safety information showed a more marked increase. In 1996, 59% of states conducted electronic collection and uploading of safety data, increasing to 69% in 1998. Facilities with computer access to safety information increased from 12% to 42%.

Figure 6. States and Inspection Facilities With The Capability of Accessing, Collecting, and Uploading Inspection Data in 1996 and 1998
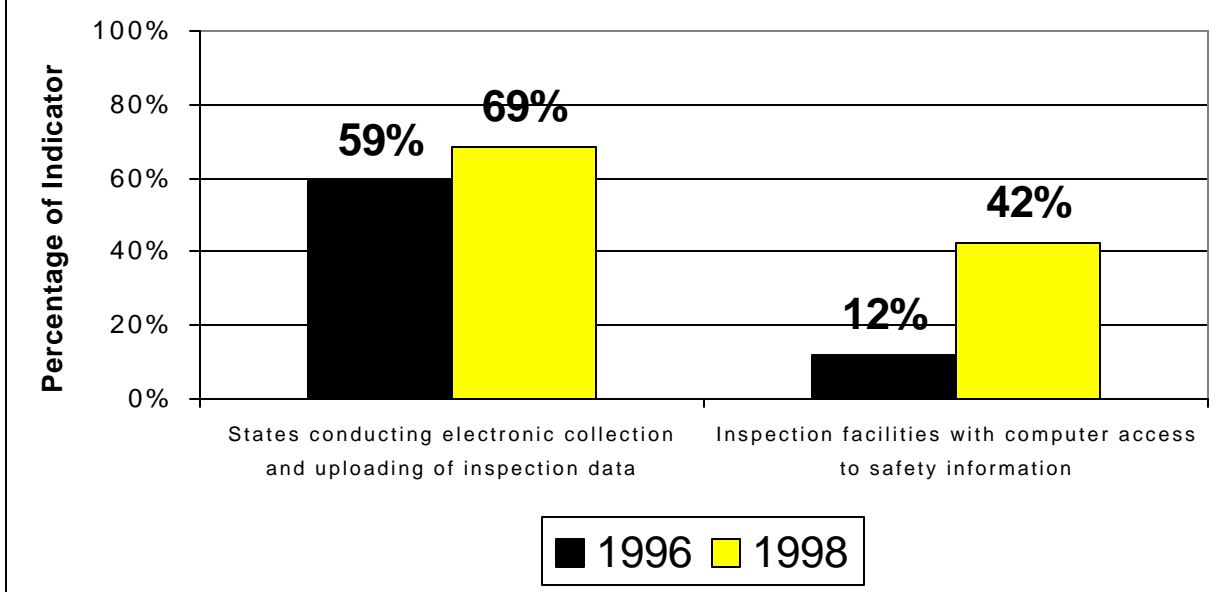
Table 5. Percent of states and inspection facilities with the capability of accessing, collecting, and uploading inspection data in 1996 and 1998

Y-Axis Category	Description	Method of Measurement	1996 Value	1998 Value
States electronic collection and uploading of inspection data	Percent of all responding states that electronically collected inspection data from the roadside and uploaded them to SafetyNet in the given year	Numerator: Total number of responding states that electronically collected inspection data from the roadside and uploaded it to SafetyNet	26	33
		Denominator: Total number of responding states	44	48
		Value:	59.1%	68.8%
Inspection facilities with computer access to safety information	Percent of all fixed, mobile, and other inspection stations with computer access to safety information in the given year	Numerator: Total number of fixed, mobile, and other inspection stations equipped with computer access to safety information	443	1,913
		Denominator: Total number of fixed, mobile, and other inspection stations	3,740	4,509
		Value:	11.8%	42.4%

2.3.4 Software

Software use is mostly confined to ASPEN. Close to 80% of states used ASPEN in 1998. Five states reported the use of state developed software. Two of them indicated that the software was mainframe-based.

2.4 ROADSIDE ELECTRONIC SCREENING

2.4.1 Objectives

The overall objectives of roadside electronic screening applications are to verify the safety and legality of commercial vehicles at both fixed and mobile roadside sites which will improve the efficiency, safety, and effectiveness of CVO operations through the use of timely, accurate, electronic screening information. These screening applications may include any or all of the following:

- expedited processing of vehicles identified as safe and legal;

- identifying overweight and improperly credentialed vehicles;

- identifying high-risk and improperly credentialed carriers;

- identifying illegal drivers;

- selecting higher-risk safety performers for close inspection; and

- providing safety and credentials compliance statistics to support policy decisions, rule-making, and program development.

2.4.2 Description

Roadside Electronic Screening systems operate at fixed or mobile commercial vehicle weigh and/or inspection stations within a state. These systems perform roadside functions and may support automated carrier, vehicle, or driver identification at mainline or non-mainline speeds for credential checking, roadside safety inspections, and weight checks. In some applications, they allow safe and legal vehicles to pass weight and/or inspection stations at mainline speeds instead of pulling off to the station. CVISN information systems will also permit the identification of illegal and higher safety-risk operators.

The electronic screening system distinguishes between legal and illegal vehicles, where legal status is based on possessing the necessary credentials, being paid up on taxes, and/or operating within the weight and size restrictions established by jurisdictions. In some applications, the system first identifies the vehicle and then correlates its ID in the system with carrier information available about credentials and tax status and in some applications the current load (weight and size.) Ideally, this identification can be performed while the vehicle is traveling at mainline speeds with the use of Dedicated Short Range Communications systems and vehicle-mounted transponders. In some

mainline electronic screening applications the carrier ID is correlated with carrier safety, credential, and performance data which permits enforcement actions to focus on high-risk carriers.

2.4.3 Mainline/Non-Mainline Screening

Figure 7 and Figure 8 illustrate (a) the percent of all fixed, mobile, and other inspection stations, that were using electronic screening at mainline or non-mainline speeds, and (b) the percent of all vehicle screenings that were done electronically at mainline or non-mainline speeds. Table 6 describes the underlying calculations.

Both mainline and non-mainline screening increased between 1996 and 1998. About double the number of inspection facilities had the ability to conduct electronic screening in 1998 compared to 1996. The percentage of vehicles screened electronically increased even more dramatically. The percentage of vehicles undergoing mainline screening increased from 1% to 6%, while non-mainline screening increased from 7% to 24%.
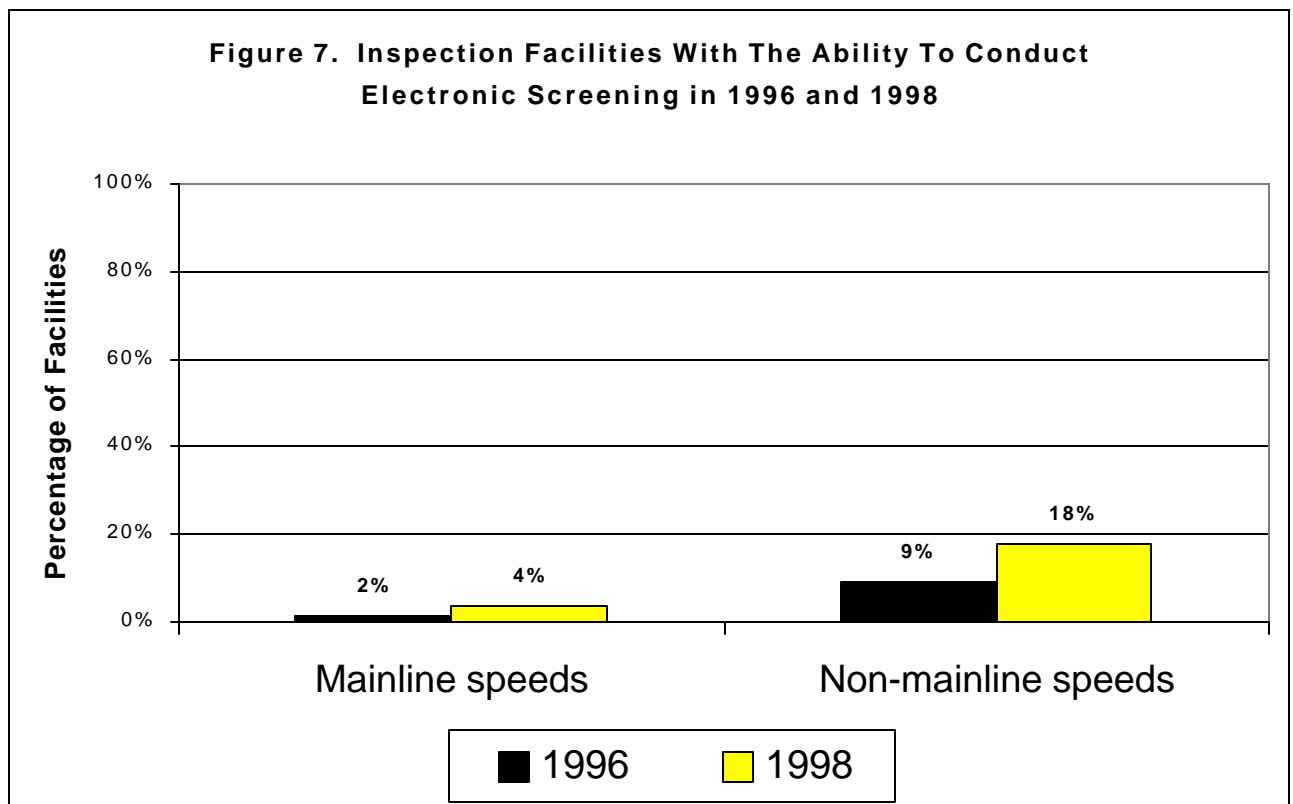
Figure 7. Inspection Facilities With The Ability To Conduct Electronic Screening in 1996 and 1998

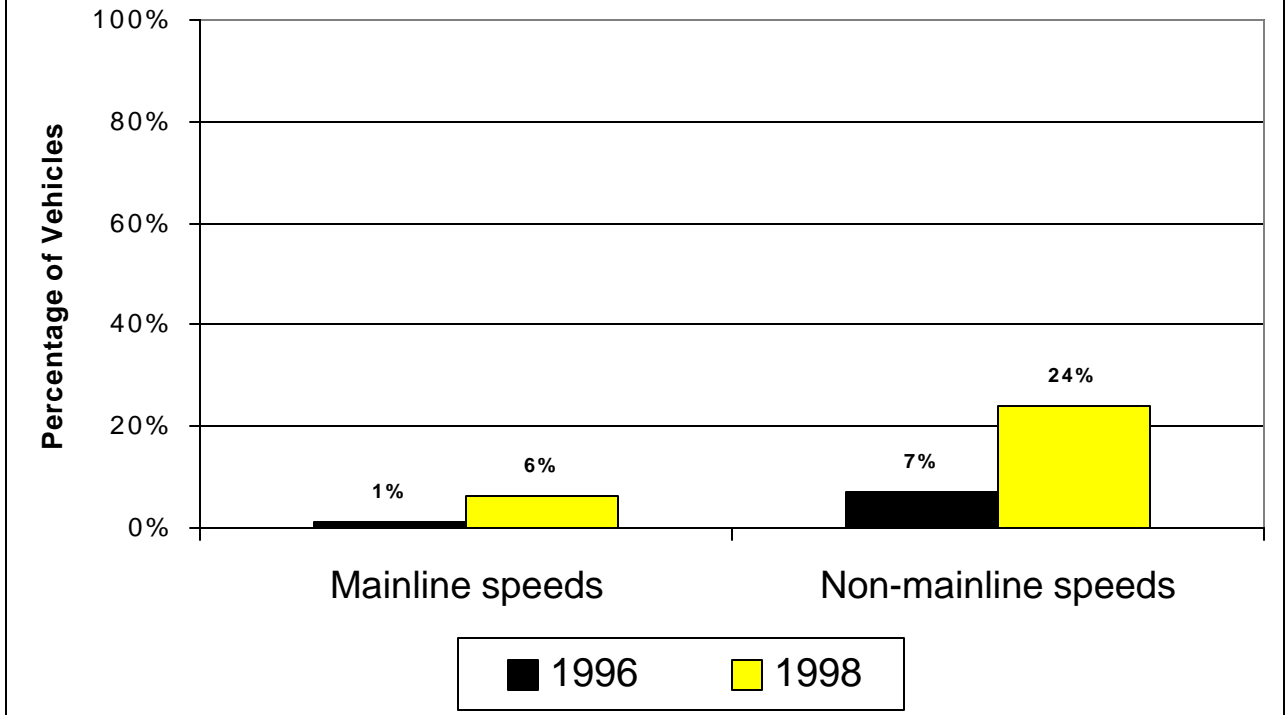**Figure 8. Vehicles Electronically Screened in 1996 and 1998**

Table 6. Inspection facilities with the ability to conduct electronic screening, and vehicles electronically screened in 1996 and 1998

Y-Axis Category	Description	Method of Measurement	1996 Value	1998 Value
Facilities using electronic screening	Percent of all fixed, mobile, and other inspection stations using electronic screening at mainline and non-mainline speeds in the given year	Numerators: Total number of fixed, mainline, and other inspection facilities equipped to electronically screen commercial motor vehicles at mainline speeds	38	77
		Total number of fixed, mainline, and other inspection facilities equipped to electronically screen commercial motor vehicles at non-mainline speeds	226	377
		Denominators: Total number of fixed, mobile, and other inspection facilities	2,505	2,124
		Total number of fixed, mobile, and other inspection facilities	2,505	2,124
		Values: **% mainline facilities**	**1.5%**	**3.6%**
		% non-mainline facilities	**9.0%**	**17.7%**
Vehicles screened electronically	Percent of all vehicles screened electronically at mainline and non-mainline speeds in the given year	Numerators: Total number of commercial motor vehicles that were electronically screened for weight, credentials, or safety, at mainline speeds	1,985,593	9,312,673
		Total number of commercial motor vehicles that were electronically screened for weight, credentials, or safety, at non-mainline speeds	13,907,944	35,586,255
		Denominators: Total number of commercial motor vehicles that were screened for weight, credentials, or safety	199,295,504	148,380,674
		Total number of commercial motor vehicles that were screened for weight, credentials, or safety	199,295,504	148,380,674
		Values: **% mainline vehicles**	**1.0%**	**6.3%**
		% non-mainline vehicles	**7.0%**	**24.0%**

2.4.4 International Border Crossings

States with international border crossings were asked about commercial vehicle traffic at the crossings, proximity to inspection facilities and the characteristics of those facilities. Twelve states provided information in 1996 and/or 1998. Only one state, Arizona, reported fixed inspection facilities located at the border crossing. It is more typical for the fixed inspection facilities to be relatively distant from the border crossing, with an average distance reported of about 63 miles. Consequently, the traffic from the border is likely to make up a small percentage of the commercial vehicle traffic screened or inspected, even at the closest site. States that rely more heavily on mobile units tend to have far more vehicles crossing the border than are inspected.

Table 7 summarizes the CVISN capabilities for all inspection facilities and for those near international border crossings for states with international borders that responded in 1998. Relatively few states report either computer access to safety information or non-mainline screening capabilities at these sites. The discrepancies between access to safety information anywhere in the state and at the facilities closest to the border crossings is likely a result of a more restrictive phrasing of the question on the Safety Information Exchange survey compared to the Border Crossing Addendum.

Table 7. CVISN capabilities at inspection facilities near international borders

State	Have computer access to safety information in 1998		Have non-mainline screening in 1998	
	Anywhere in state	At facility closest to international border	Anywhere in state	At facility closest to international border
Alaska				
California	✓	✓		
Maine				
Michigan				
New Hampshire			✓	✓
New Mexico		✓		
New York		✓	✓	✓
Washington			✓	

2.4.5 Software

Software cited by states for use in roadside electronic screening includes the software for both major mainline pre-clearance systems, weigh-in-motion, license plate readers, and the business end of the system. Of the ten states that specified which mainline pre-clearance system they were using, five states each mentioned HELP/PrePass and Advantage I-75/CVO/Model MACS. Six mentioned weigh in motion software.

2.5 STATE CVISN LEVEL ONE CAPABILITIES

The Congressional goal established in TEA-21 is for a majority of states to deploy Level One CVISN capabilities by September 30, 2003. These CVISN Level One capabilities are as follows:

- Credential Administration
  - End-to-end processing of at least IRP and IFTA credentials
  - Connection to IRP and IFTA Clearinghouses
  - At least 10% of transaction volume for the IFTA and IRP credentials to be handled electronically;

- Safety Information Exchange
  - ASPEN or equivalent at all major inspection sites
  - Connection to SAFER
  - CVIEW or equivalent system; and

- Roadside Electronic Screening
  - Electronic screening application at a minimum of one fixed or mobile site
  - Ready to replicate at other sites.

Table 8 presents the national deployment levels of these capabilities. The definitions of Level One Deployment are listed in the "CVISN Level One Deployment" column below.

Table 8. Level One Deployment: National for 1996 and 1998

	CVISN Level One Deployment	Percent of Responding States with Level One Deployment Capabilities in 1996 (out of 36 states)	Percent of Responding States with Level One Deployment Capabilities in 1998 (out of 48 states & DC)
Credential Administration	*End-to-End IRP and IFTA Processing*	3%	0%
	Connection to IRP and IFTA Clearinghouses	0%	4%
Safety Information Exchange	*ASPEN or Equivalent*	64%	79%
	Connection to SAFER	0%	30%
	CVIEW or Equivalent	0%	2%
Roadside Electronic Screening	*One or More Fixed or Mobile Sites Equipped for Electronic Screening*	64%	68%

The major area in which progress has been made toward the goal is in connection to SAFER. In 1996, no states were connected, while in 1998 30% of responding states were connected. Both the use of ASPEN and electronic screening remained very common, with some increase between 1996 and 1998. The other capabilities remain in the early stages, with low percentages of states reporting the capabilities.

2.6 PLANS AND EXTRAPOLATIONS

2.6.1 Deployment and plans

In both 1996 and 1998, states were asked about their plans for deploying CVISN capabilities for each component. In general, states report a shift toward planning for or being undecided about CVISN deployment, and a shift away from definitely not planning to deploy. Safety Information Exchange remains the CVISN component with the greatest percentage of states having deployed it and the greatest percentage planning to. Roadside Electronic Screening is next on both counts.

The following matrices reflect levels of CVISN deployment and plans. The data for each year are drawn from that year's survey. The national average matrices display the percentage of states that fall into each of the six categories for Credential Administration, Safety Information Exchange, and Roadside Electronic Screening. Please note that this section of the report presents different information than that which is contained by the CVISN deployment levels listed above. In contrast to the previous sections that displayed what percentage a state had for the given category, this section is only concerned with whether or not a state had any deployment in the category, regardless of level.

For Credential Administration, "Present" indicates that the state conducted transactions electronically, or was connected to the IFTA or IRP clearinghouses. "Not Present" indicates that none of those were true. "Planned," "Not Planned," or "Undecided" reflect whether or not the state intended to deploy further electronic credential administrative services in the next two years.

For Safety Information Exchange, "Present" indicates that the state was using any of the following: SAFETYNET, ASPEN, SAFER, CVIEW, or had real-time distribution of safety information to computers at the roadside. "Not Present" indicates that they did not. "Planned," "Not Planned," or "Undecided" reflect whether or not the state intended to deploy electronic safety information exchange in the next two years.

For Roadside Electronic Screening, "Present" indicates that the state conducted at least some roadside screening electronically. "Not Present" indicates that they did not. "Planned," "Not Planned," or "Undecided" reflect whether or not the state intended to implement mainline or non-mainline roadside electronic screening in the next two years.

1996 National Credential Administration

	Planned	Not Planned	Undecided	Total
Present	20.0%	2.5%	0.0%	22.5%
Not Present	47.5%	22.5%	7.5%	77.5%
Total	67.5%	25.0%	7.5%	100.0%

1998 National Credential Administration

	Planned	Not Planned	Undecided	Total
Present	34.9%	2.3%	7.0%	44.2%
Not Present	27.9%	14.0%	14.0%	55.8%
Total	62.8%	16.3%	20.9%	100.0%

1996 National Safety Information Exchange

	Planned	Not Planned	Undecided	Total
Present	52.5%	20.0%	0.0%	72.5%
Not Present	17.5%	10.0%	0.0%	27.5%
Total	70.0%	30.0%	0.0%	100.0%

1998 National Safety Information Exchange

	Planned	Not Planned	Undecided	Total
Present	57.8%	4.4%	17.8%	80.0%
Not Present	13.3%	4.4%	2.2%	20.0%
Total	71.1%	8.9%	20.0%	100.0%

1996 National Roadside Electronic Screening

	Planned	Not Planned	Undecided	Total
Present	44.7%	21.1%	0.0%	65.8%
Not Present	15.8%	18.4%	0.0%	34.2%
Total	60.5%	39.5%	0.0%	100.0%

1998 National Roadside Electronic Screening

	Planned	Not Planned	Undecided	Total
Present	46.5%	11.6%	11.6%	69.8%
Not Present	18.6%	9.3%	2.3%	30.2%
Total	65.1%	20.9%	14.0%	100.0%

2.6.2 Extrapolations

While the successful completion of CVISN Level 1 deployment in a state is dependent on securing resources, it is possible to use the same definitions of having CVISN present or planned to extrapolate states' future CVISN presence and plans based on their past behavior and stated plans. In order to do so, certain assumptions were made, which may make the projection somewhat conservative. The major assumptions are that the future CVISN deployment and planning status of a state depends only on the current status and on transition probabilities that remain constant over time. The transition probabilities were derived by taking the responses of states that gave definite answers to the relevant questions in both 1996 and 1998 and calculating the percentages that moved from one category to another. As a result, these transition probabilities were based on 32 states for Roadside Electronic Screening, 33 states for Safety Information Exchange, and 31 states for Credential Administration.

Because "undecided" was not an allowed response in 1996, states were placed in four categories for each CVISN capability:
- CVISN present and planned;
- CVISN present and not planned;
- CVISN not present, but planned; or
- CVISN not present and not planned.

The resulting extrapolations are illustrated in Figures 9, 10, and 11. Each figure shows the fraction of states in each category in 1998, followed by the extrapolated percentages of states in each category through 2006. States that reported they were undecided about their future plans were eliminated from the sample used to determine the starting fractions.

For Credential Administration, the states started in 1998 with 44% having some aspect of electronic transactions in place and more planned, and 3% with electronic transactions but not planning to add more. 35% did not have anything deployed but had plans to deploy, and 18% neither had anything deployed nor had plans. Assuming that states continue to move among those categories at the same rates they did between 1996 and 1998, the percentage of states that have some deployment and are planning to do more will increase through 2006, while the percentages of states in the other categories decline. By 2004, the percentage of states that have plans but no deployment will stabilize at 25%. About two or three states will have neither plans nor deployment.

Figure 9. Actual and Extrapolation of Percent of States with Presence or Plans for Electronic Credential Administration
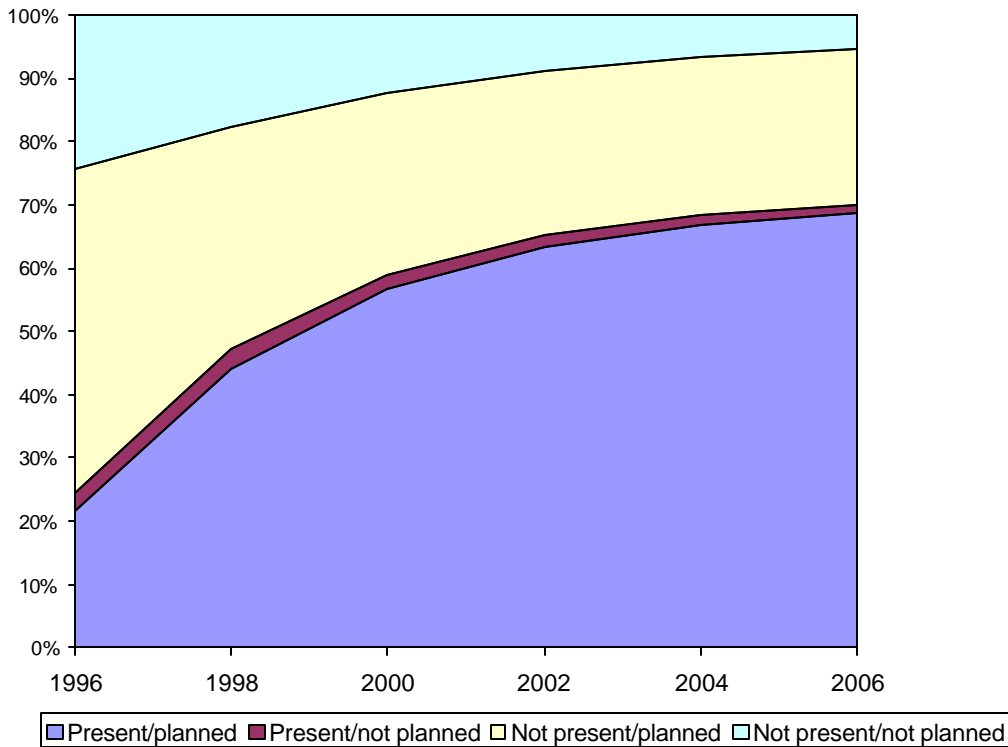
Figure 10 illustrates the same division among categories but for Safety Information Exchange. As for Credential Administration, the present/planned category increases over time, although it is starting at a higher level: 72% of all states. By 2006, 83% of states have some Safety Information Exchange capabilities and are planning to deploy more, and another 6% have deployed but have no more plans. Only about one state will have neither deployment nor plans and another four will have plans, but not deployment.

Figure 10. Actual And Extrapolation Of Percent Of States With Presence Or Plans For Safety Information Exchange
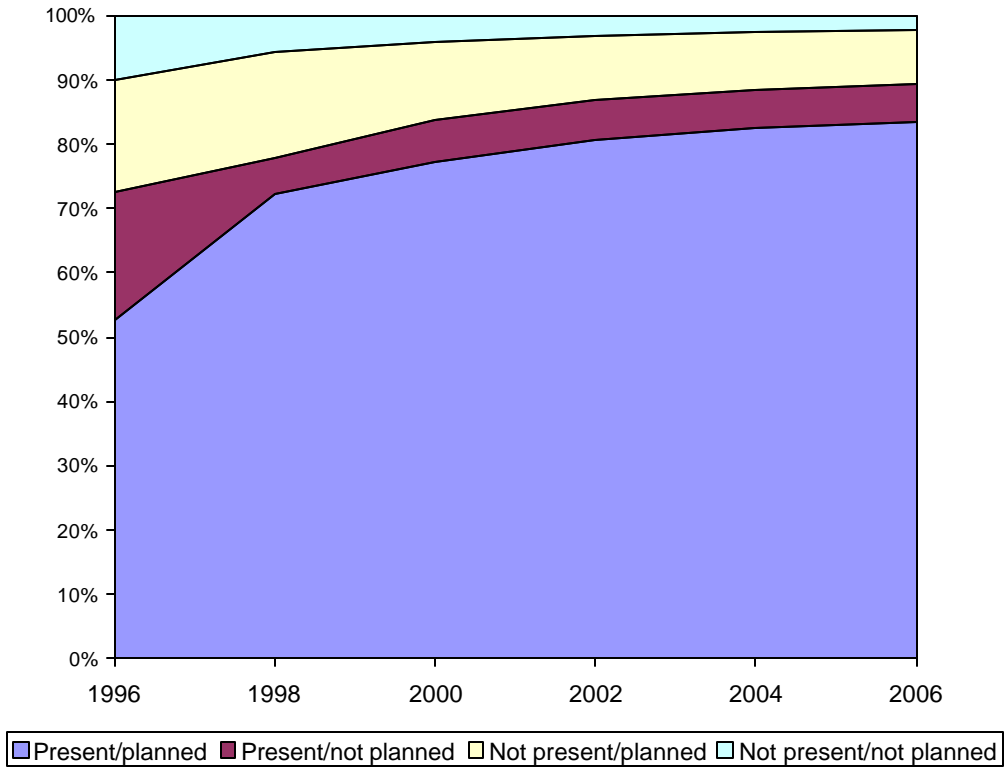
As shown in Figure 11, the percentage of states with Roadside Electronic Screening deployment and plans is extrapolated to increase from 54% to 67% over the time period. The percentage of states with deployment and no plans for additional deployment will decrease to 13%, while states with plans but no deployment will also decrease to 13%. About four states will have neither deployment nor plans.

Figure 11. Extrapolation of Percent of States with Presence or Plans for Roadside Electronic Screening

Legend: Present/planned — Present/not planned — Not present/planned — Not present/not planned
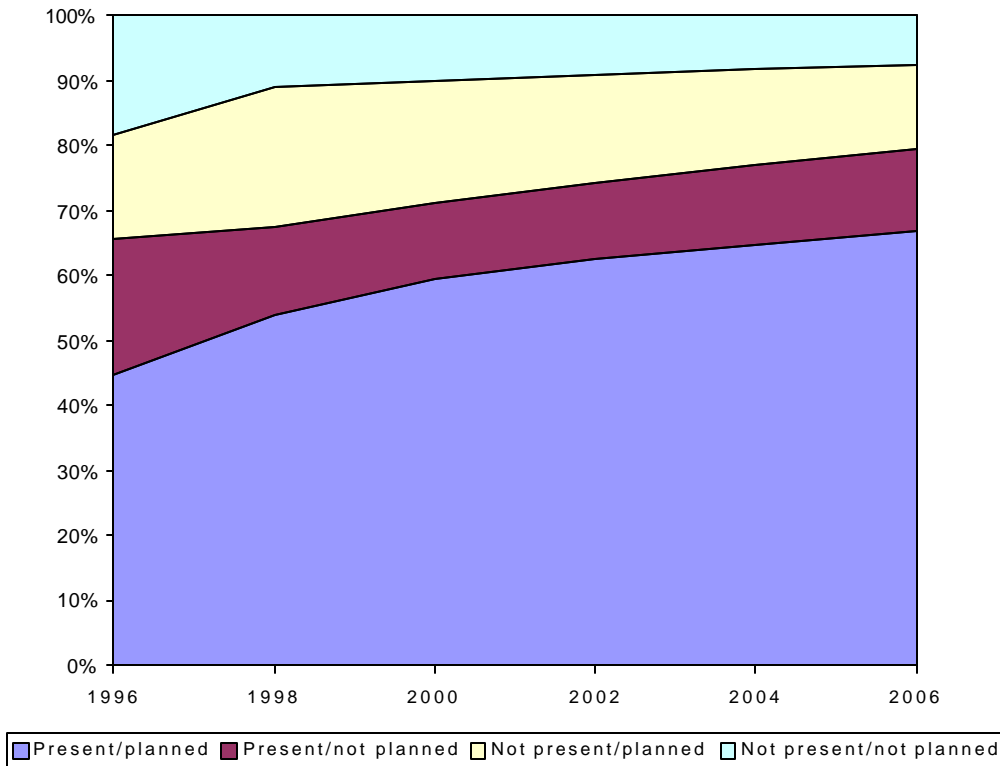
These extrapolations of state involvement in CVISN are not specifically targeted at predicting achievement of Level One by states; there is not yet enough information to be that specific. Instead, these extrapolations use the lower standard of whether or not the states have deployed at all or have plans to deploy. In support of helping all interested states in deploying CVISN by 2005, there are some observations that can be made with respect to the projections.

- The high percentage of states with plans but no deployment of Credential Administration may be an opportunity for the FMCSA and the FHWA to provide technical assistance that could have a major effect. While designing any additional outreach, it is important to gain a clearer understanding of why Credential Administration attracts interest, but is slow to progress to deployment.

- Safety Information Exchange appears to be on track for almost all states having some portion deployed by 2005. Considering current patterns, some aspects may progress

more slowly than others, for instance use of inspection software may be more widespread than computer access to safety information.

- Deployment of Roadside Electronic Screening appears to be progressing steadily, but at a somewhat slower pace than Safety Information Exchange.

- For all CVISN capabilities, states that have already deployed want to add to their systems. Roadside Electronic Screening is the only capability where the category of present and not planned is growing over time.

APPENDIX A: SAMPLE SURVEYS

STATE ADMINISTRATIVE PROCESSES

Name:
Title:
Organization:
Street:
City, State:
Phone: **Fax:**
E-Mail:

1. Please provide the number of transactions you performed in 1998. If your state does not require a particular type of credential, please enter "n/a".

	1996		1998	
	Applications Submitted	Permits -Credentials Issued	Applications Submitted	Permits -Credentials Issued
Oversize/Overweight	_____	_____	_____	_____
Hazardous Materials	_____	_____	_____	_____
Single State Registration	_____	_____	_____	_____
IRP	_____	_____	_____	_____
Intrastate Registration	_____	_____	_____	_____
IFTA	_____	_____	_____	_____

2. In 1998, were you using vendor developed software for credentials administrative procedures? If so, please indicate vendor and software used for each credential.

1996 ☐ No   ☐ Yes   Credential/vendor/software _____

1998 ☐ No   ☐ Yes   Credential/vendor/software _____

3. Do your credentials administrative procedures conform with the CVISN architecture, design and standards? (Information on this topic can be found @ www.jhuapl.edu/cvisn.)

1996 ☐ Yes   ☐ No   ☐ Not familiar w/CVISN architecture, design and standards.

1998 ☐ Yes   ☐ No   ☐ Not familiar w/CVISN architecture, design and standards.

4. Did you participate in the IFTA Clearinghouse in 1998?

1996 ☐ Yes   ☐ No   If not, do you plan to in 1997?   ☐ Yes   ☐ No

1998 ☐ Yes   ☐ No   If not in 1998, is it planned for 1999?   ☐ Yes   ☐ No

Please fax completed survey to Sari Radin at 617.494.2787 or mail it to her attention: USDOT/Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142.

5. Did you participate in the IRP Clearinghouse in 1998?

1996 ☐ Yes ☐ No If not, do you plan to in 1997? ☐ Yes ☐ No

1998 ☐ Yes ☐ No If not in 1998, is it planned for 1999? ☐ Yes ☐ No

6. In 1998, were you able to accommodate or perform the functions below through EDI or tape/disk? Please indicate the number of transactions that applied the electronic methods below. If your state does not require a particular type of credential, please enter "n/a".

	1996			1998		
	Applications submitted by EDI	EFT between carrier and state	Electronic permits/ credentials	Applications submitted by EDI	EFT between carrier and state	Electronic permits/ credentials
Oversize/ Overweight	___	___	___	___	___	___
Hazardous Materials	___	___	___	___	___	___
Single State Reg.	___	___	___	___	___	___
IRP	___	___	___	___	___	___
Intrastate Registration	___	___	___	___	___	___
IFTA	___	___	___	___	___	___

7. If you haven't already, do you plan to deploy electronic credential administrative services in the next 2 years?

1996 ☐ Yes ☐ No ☐ Undecided

1998 ☐ Yes ☐ No ☐ Undecided

Comments _____

8. If you deploy electronic credential administration services or have plans to, please confirm the information below or provide the name, telephone number, e-mail, and address of someone familiar with the system plans.

1996

1998 **Name** _____
Address _____
Telephone _____
E-mail _____

Again, many thanks for taking the time and effort to provide a timely response to this survey.

Please fax completed survey to Sari Radin at 617.494.2787 or mail it to her attention: USDOT/Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142.

SAFETY INFORMATION EXCHANGE

Name:
Title:
Organization:
Street:
City, State:
Phone: **Fax:**
E-Mail:

1. How many inspection facilities were staffed with safety inspectors in 1998?

   (Facilities that operate on different sides of the highway should be counted separately.)

	1996	1998
Fixed inspection stations	. _____	_____
Mobile units/vans	_____	_____
Other	_____	_____

2. How many safety inspections were conducted in 1998?

	1996	1998
Fixed inspection stations	_____	_____
Mobile units/vans	_____	_____
Other	_____	_____
Total	. _____	_____

3. Does your implementation of safety information exchange conform with the CVISN architecture, design and applicable standards? (Information on this topic can be found @ www.jhuapl.edu/cvisn.)

1996	☐ Yes	☐ No	☐ Not familiar w/CVISN architecture, design and standards
1998	☐ Yes	☐ No	☐ Not familiar w/CVISN architecture, design and standards

Please fax completed survey to Sari Radin, 617.494.2787, or mail it to her attention:
Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142

4. In 1998, did you electronically collect inspection data from the roadside and upload it to SAFETYNET?

     1996   ☐ Yes   ☐ No

     1998   ☐ Yes   ☐ No

5. In 1998, did you use ASPEN or equivalent software?

     1996   ☐ Yes   ☐ No

     1998   ☐ Yes   ☐ No

        If so, how many inspection facilities were equipped with ASPEN?

	1996	1998
Fixed inspection stations	_____	_____
Mobile units/vans	_____	_____
Other	_____	_____

        If you are not using ASPEN, please specify what other inspection software you are using.

1996 _____

1998 _____

6. Were you connected to Safety and Fitness Electronic Records (SAFER) in 1998?

    1996 ☐ Yes ☐ No If not, do you plan to be in 1997? ☐ Yes ☐ No ☐ Undecided

    1998 ☐ Yes ☐ No If not, do you plan to be in 1999? ☐ Yes ☐ No ☐ Undecided

7. Was CVIEW or an equivalent system used in 1998 to exchange intra and interstate snapshots?

    1996 ☐ Yes ☐ No If not, is it planned for 1997? ☐ Yes ☐ No ☐ Undecided

    1998 ☐ Yes ☐ No If not, is it planned for 1999? ☐ Yes ☐ No ☐ Undecided

Please fax completed survey to Sari Radin, 617.494.2787, or mail it to her attention:
Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142

8. Did you have real time distribution of safety information to computers at roadside in 1998?

1996 ☐ Yes ☐ No If so, were SAFER snapshots used? ☐ Yes ☐ No

1998 ☐ Yes ☐ No If so, were SAFER snapshots used? ☐ Yes ☐ No

If some sites had computer access to safety information in 1998, how many were:

	1996	1998
Fixed inspection stations	_____	_____
Mobile units/vans	_____	_____
Other	_____	_____

9. If you haven't already, do you plan to deploy electronic safety information exchange services in the next 2 years?

1996 ☐ Yes ☐ No ☐ Undecided

1998 ☐ Yes ☐ No ☐ Undecided

Comments:

10. If you are deploying electronic safety information exchange or have plans to do so, please provide the name, telephone number, e-mail, and address of someone familiar with the system or plans.

1996

1998 _____

_____

Again, many thanks for taking the time and effort to provide a timely response to this survey.

Please fax completed survey to Sari Radin, 617.494.2787, or mail it to her attention:
Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142

ROADSIDE ELECTRONIC SCREENING

Name
Title
Organization
Street
City, State
Phone   **Fax Number**
E-Mail

1. For 1998, please provide the number of facilities that are used for commercial vehicle screening or safety inspections and the total number of commercial motor vehicles screened or inspected for weight, credentials or safety. (Screening includes any method of quickly determining whether or not a more thorough inspection is warranted.)

	1996		**1998**	
	# sites/facilities	# vehicles	# sites/facilities	# vehicles
Fixed Sites:	_____	_____	_____	_____
Mobile Sites:	_____	_____	_____	_____
Other Sites:	_____	_____	_____	_____
Totals:		_____		_____

2. For 1998, please provide, a) the number of facilities with electronic screening, and b) the number of commercial vehicles electronically screened for weight, credentials, or safety.

	1996		**1998**	
	# sites/facilities	# vehicles	# sites/facilities	# vehicles
Fixed stations performing mainline roadside electronic screening	_____	_____	_____	_____
Fixed stations performing non-mainline roadside elec. screening	_____	_____	_____	_____
Mobile teams performing mainline roadside electronic screening	_____	_____	_____	_____
Mobile teams performing non-mainline roadside electronic screening	_____	_____	_____	_____
Other facilities performing mainline roadside electronic screening	_____	_____	_____	_____
Other facilities performing non-mainline roadside electronic screening	_____	_____	_____	_____

Please fax completed survey to Sari Radin at 617.494.2787 or mail it to her attention: USDOT/Volpe
Center DTS-42, 55 Broadway, Cambridge MA 02142.

3. In 1998, did your electronic screening conform with the CVISN architecture, design and applicable standards? (Information on this topic can be found at www.jhuapl.edu/cvisn.)

1996 ☐ Yes ☐ No ☐ Not familiar with CVISN architecture, design and standards.

1998 ☐ Yes ☐ No ☐ Not familiar with CVISN architecture, design and standards.

4. Was vendor-developed software used for roadside electronic screening in 1998?

1996 ☐ No ☐ Yes **Vendor and software?**

1998 ☐ No ☐ Yes **If so, please specify vendor and software**

_____

_____

5. If you haven't already, do you plan to implement mainline or non-mainline roadside electronic screening in the next 2 years?

1996 ☐ Yes ☐ No ☐ Undecided

1998 ☐ Yes ☐ No ☐ Undecided

Comments

6. If you are using electronic screening services or have plans to, please confirm the information below or provide the name, telephone number, e-mail, and address of someone familiar with the system or plans.

1996

1998 _____

_____

_____

7. Do you have an international border with Canada or Mexico?

☐ Yes ☐ No If so, please amend the international border addendum.

Again, many thanks for taking the time and effort to provide a timely response to this survey.

Please fax completed survey to Sari Radin at 617.494.2787 or mail it to her attention: USDOT/Volpe Center DTS-42, 55 Broadway, Cambridge MA 02142.

INTERNATIONAL BORDERS SURVEY ADDENDUM

1996

International Border Crossing	Annual Truck Volume	Nearest inspection facility (miles)	# of CVs checked for weight, safety or credentials	Computer access to current safety information?		Use of non-mainline screening?	
				☐ Yes ☐ No		☐ Yes ☐ No	
				☐ Yes ☐ No		☐ Yes ☐ No	
				☐ Yes ☐ No		☐ Yes ☐ No	

1998

International Border Crossing	Annual Truck Volume	Nearest inspection facility (miles)	# of CVs checked for weight, safety or credentials	Computer access to current safety information?		Use of non-mainline screening?	
				☐ Yes ☐ No		☐ Yes ☐ No	
				☐ Yes ☐ No		☐ Yes ☐ No	
				☐ Yes ☐ No		☐ Yes ☐ No	

Please fax completed survey to Sari Radin, 617.494.2787, or mail it to her attention: Volpe Center, DTS-42, 55 Broadway, Cambridge, MA 02142

APPENDIX B: RESPONSE MATRIX

Response Matrix (as of May 26, 2000)

State	State Administrative Processes	Safety Information Exchange	Roadside Electronic Screening
Alabama	✓	✓	✓
Alaska	✓	✓	✓
Arizona	✓	✓	
Arkansas	✓	✓	✓
California	✓	✓	✓
Colorado	✓	✓	✓
Connecticut	✓	✓	✓
District of Columbia		✓	
Delaware	✓	✓	✓
Florida	✓	✓	✓
Georgia	✓	✓	✓
Hawaii	✓	✓	✓
Idaho		✓	✓
Illinois	✓	✓	✓
Indiana	✓	✓	✓
Iowa	✓	✓	✓
Kansas	✓	✓	✓
Kentucky	✓	✓	✓
Louisiana	✓	✓	✓
Maine	✓	✓	✓
Maryland	✓	✓	✓
Massachusetts		✓	✓
Michigan	✓	✓	✓
Minnesota			
Mississippi	✓	✓	✓
Missouri	✓	✓	✓
Montana	✓	✓	✓
Nebraska	✓	✓	✓
Nevada	✓	✓	✓
New Hampshire	✓	✓	✓
New Jersey	✓	✓	✓
New Mexico	✓	✓	✓
New York	✓	✓	✓
North Carolina	✓	✓	✓
North Dakota	✓	✓	✓

State	State Administrative Processes	Safety Information Exchange	Roadside Electronic Screening
Ohio	✓	✓	✓
Oklahoma	✓	✓	✓
Oregon	✓	✓	✓
Pennsylvania	✓	✓	✓
Rhode Island			
South Carolina	✓	✓	✓
South Dakota	✓	✓	✓
Tennessee	✓	✓	✓
Texas	✓	✓	✓
Utah	✓		
Vermont	✓	✓	✓
Virginia	✓	✓	✓
Washington	✓	✓	✓
West Virginia	✓	✓	✓
Wisconsin	✓	✓	✓
Wyoming	✓	✓	✓

APPENDIX C: 1998 CVISN LEVEL ONE DEPLOYMENT BY STATE

State	Credential Administration		Safety Information Exchange			Electronic Screening	State
	End-to-End IRP and IFTA Processing	*Connection to IRP and IFTA Clearinghouses*	*ASPEN or Equivalent*	*Connection to SAFER*	*CVIEW or Equivalent*	*One or More Fixed or Mobile Sites Equipped for Electronic Screening*	
AK							AK
AL			✓				AL
AR						✓	AR
AZ			✓				AZ
CA			✓			✓	CA
CO			✓	✓		✓	CO
CT			✓	✓		✓	CT
DC							DC
DE			✓	✓	✓	✓	DE
FL			✓			✓	FL
GA			✓			✓	GA
HI						✓	HI
IA			✓			✓	IA
ID			✓			✓	ID
IL						✓	IL
IN							IN
KS			✓	✓		✓	KS
KY			✓	✓		✓	KY
LA							LA
MA			✓				MA
MD			✓	✓		✓	MD
ME			✓				ME
MI			✓	✓		✓	MI
MN							MN
MO			✓			✓	MO
MS			✓			✓	MS
MT			✓			✓	MT
NC						✓	NC
ND			✓				ND
NE			✓	✓			NE
NH		✓	✓			✓	NH
NJ			✓	✓		✓	NJ
NM			✓			✓	NM
NV							NV
NY		✓	✓	✓		✓	NY
OH			✓			✓	OH
OK			✓				OK
OR			✓	✓		✓	OR
PA			✓	✓		✓	PA
RI							RI

State	Credential Administration		Safety Information Exchange			Electronic Screening	State
	End-to-End IRP and IFTA Processing	Connection to IRP and IFTA Clearinghouses	ASPEN or Equivalent	Connection to SAFER	CVIEW or Equivalent	One or More Fixed or Mobile Sites Equipped for Electronic Screening	
SC			✔			✔	SC
SD			✔				SD
TN			✔			✔	TN
TX			✔			✔	TX
UT							UT
VA			✔	✔		✔	VA
VT			✔	✔			VT
WA			✔			✔	WA
WI			✔				WI
WV							WV
WY			✔			✔	WY
Total "✔"	0	2	38	14	1	32	Total "✔"
%	0%	4%	79%	29%	2%	71%	%

Please note that the above percentages reflect the total number of states meeting the given criteria divided by the number of states that responded to the survey as opposed to being divided by the total number of states that were sent surveys.