Transportation
Security
Administration

Mobile Driver's License

6 CFR Part 37

Docket No. TSA-2023-0002

RIN 1652-AA76

Final Rulemaking

Final Regulatory Impact Analysis and Regulatory Flexibility Analysis

September 6, 2024

Economic Analysis Branch

Policy, Plans, and Engagement

Transportation Security Administration

Department of Homeland Security

Springfield, VA 22150

Table of Contents

List of Tables

List of Abbreviations

AAMVA	American Association of Motor Vehicle Administrators
CFR	Code of Federal Regulations
DHS	U.S. Department of Homeland Security
DL/ID	Driver's Licenses and Identification Cards
DMV	State Department of Motor Vehicles
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
mDL	Mobile Driver's License
NAICS	North American Industry Classification System
NIST	National Institute for Standards and Technology
NPRM	Notice of Proposed Rulemaking
OMB	Office of Management and Budget
PRA	Paperwork Reduction Act of 1995
RFA	Regulatory Flexibility Act of 1980, as amended
RIA	Regulatory Impact Analysis
SME	Subject Matter Expert
TSA	Transportation Security Administration
UMRA	Unfunded Mandates Reform Act of 1995
U.S.C.	U.S. Code

EXECUTIVE SUMMARY

Executive Order 12866 (Regulatory Planning and Review), as affirmed by E.O. 13563 (Improving Regulation and Regulatory Review), and as amended by E.O. 14094 (Modernizing Regulatory Review), directs agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying costs and benefits, reducing costs, harmonizing rules, and promoting flexibility.

The Office of Management and Budget (OMB) has designated The Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes; Temporary Waiver for Mobile Driver's Licenses Final Rulemaking (referred to as "the final rule", "the rule", or the "Mobile Driver's License (mDL) rule") a "significant regulatory action" as defined under section 3(f) of E.O. 12866 as amended by Executive Order 14094. Accordingly, OMB has reviewed this rule.

The Regulatory Flexibility Act of 1980 (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, requires agencies to consider the economic impact of regulatory changes on small entities. The Trade Agreements Act of 1979 prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this act requires agencies to consider international standards and, where appropriate, to use them as the basis for U.S. standards. In addition, the Unfunded Mandates Reform Act of 1995 (UMRA) requires agencies to prepare a written assessment of the costs, benefits, and other effects of final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted for inflation) in any one year.

This RIA provides supporting documentation for the section *VI. Regulatory Analyses* in the preamble of the mDL final rule (RIN 1652-AA76). The Transportation Security Administration (TSA) may not have replicated precisely the regulatory language of the final

rule in this RIA; the regulatory text, not the text of this RIA, will be legally binding. A summary of the RIA findings is presented below:

(1) While TSA attempts to quantify costs where available, TSA primarily discusses the benefits of this rulemaking in qualitative terms. At present, mDLs are part of an emerging and evolving industry with an elevated level of uncertainty surrounding costs and benefits. Nonetheless, TSA anticipates the rule will not result in an effect on the economy of $200 million or more in any year of the analysis. The rule will not adversely affect the economy, interfere with actions taken or planned by other agencies, or generally alter the budgetary impact of any entitlements.

(2) Pursuant to 5 U.S.C. 605(b), TSA certifies that the final rule will not have a significant economic impact on a substantial number of small entities. The final rule will only directly regulate the fifty States, the District of Columbia, and the five U.S. territories (collectively referred to as States) who voluntarily participate in the mDL waiver process, who under the RFA are not considered small entities.

(3) TSA has determined that the final rule imposes no significant barriers to international trade as defined by the Trade Agreement Act of 1979; and

(4) TSA has determined that the final rule does not impose an unfunded mandate on State, local, or tribal governments, such that a written statement will be required under the UMRA, as its annual effect on the economy does not exceed the $100 million threshold (adjusted for inflation) in any year of the analysis.

This final rule establishes a waiver process that will permit Federal agencies to accept mDLs, on an interim basis, for official purposes,[1] as defined in the REAL ID Act and regulations, when full enforcement of the REAL ID Act and regulations begins on May 7, 2025.[2] Federal agencies that opt to accept mDLs for official purposes must also procure a mDL reader in order to validate the identity of the mDL holder. As part of the application process for the

[1] Official purposes, as defined in the Real ID Act, include accessing Federal facilities, boarding federally regulated commercial aircraft, entering nuclear power plants, and any other purposes that the Secretary shall determine.
[2] DHS Press Release, DHS Announces Extension of REAL ID Full Enforcement Deadline (Dec. 5, 2022), https://www.dhs.gov/news/2022/12/05/dhs-announces-extension-real-id-full-enforcement-deadline; 88 FR 14473 (Mar. 9, 2023).

mDL waiver, States will be required to submit to TSA an application, including supporting data and other documentation necessary, to establish that their mDLs meet specified criteria concerning security, privacy, and interoperability. The criteria will not change absent a subsequent rulemaking as described in the preamble. The mDL waiver will be valid for up to three years, at which point States that wish to extend the mDL waiver must submit an application and meet the specified criteria concerning security, privacy, and interoperability. When full enforcement of the REAL ID Act and regulations begins, Federal agencies will be prohibited from accepting non-compliant driver's licenses and identification cards, including both physical cards and mDLs, for official purposes.

Need for Regulatory Action

The need for this rule arises from TSA's desire to accommodate and foster the rapid pace of mDL innovation, while maintaining security under the requirements of the REAL ID Act and regulations. Under the REAL ID Act and 6 CFR 37, a Federal agency may not accept for any official purpose a State-issued driver's license or identification card, either physical or a mDL, that does not meet the specified REAL ID regulatory requirements. Although the current regulations do not include requirements that will enable States to develop REAL ID-compliant mDLs, States are already investing significant resources to develop mDLs based on varying or proprietary standards, many of which may lack the security, privacy, and interoperability requirements for Federal acceptance for official purposes.

The final rule will set minimum requirements for the security, privacy, and interoperability of mDLs that States must meet to be granted a waiver. Absent the final rule, individual States may choose insufficient security and privacy safeguards for mDL technologies that fail to meet the security purposes of REAL ID requirements, privacy needs of users, and necessary interoperability for secure acceptance by Federal agencies. The final rule helps address these considerations by enabling a waiver process that allows mDL acceptance for official purposes by only those States who provide sufficient safeguards. Specifically, the final rule will identify technical requirements based on industry standards, best practices, and government guidelines in the areas of provisioning, digital issuance infrastructure controls, privacy controls, and interoperability (hereafter referred to as the application criteria or waiver application criteria).

Without timely guidance from the Federal government regarding standardized requirements for developing a REAL ID-compliant mDL, States risk developing mDLs that may vary significantly from each other and potentially from more comprehensive requirements for mDLs established in a future rulemaking, which may result in an additional burden to redevelop products acceptable by Federal agencies.

Although the mDL industry and standards continue to evolve, TSA believes it is appropriate to use its regulatory authority to establish a waiver process to provide and establish a common standard to facilitate the acceptance of mDLs. TSA is proceeding with an incremental rulemaking approach to serve as a regulatory bridge for this emerging technology. The mDL waiver process will enable secure use of mDLs when REAL ID enforcement begins, while also providing TSA additional operational experience and data from use of mDL technology before eventually issuing comprehensive regulations.

Baseline Summary

TSA has reviewed current industry practices, requirements, and standards for mDLs. Current regulations do not include requirements that will enable States to issue REAL ID-compliant mDLs. While one mDL-specific industry standard and some government guidelines have been published, these documents cover only some of the considerations necessary for Federal acceptance of mDLs. TSA believes additional standards in development may also be critical to enabling the security, privacy, and interoperability necessary for at-scale acceptance of mDLs by Federal agencies for official purposes.

In the absence of regulation, States are following independent and at times diverging paths to developing their own mDLs. As of the date of this rule, at least ten States have a mDL application available for their residents to obtain a digital version of the physical driver's license on the smartphone.[3] Around twenty other States are believed to have taken steps towards implementing a mDL, including running pilot programs at the State level, conducting feasibility studies, and/or developing the mDL application for future use. Several States are advanced in their planning of and implementation of mDLs and recognize them as legal identification for certain State services. However, many of the States that have

[3] The ten States are Arizona, Colorado, Delaware, Georgia, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, and Utah.

implemented some form of mDL still require a physical identification card for certain activities and do not recognize mDLs for law enforcement purposes. Technology companies of all sizes are pursuing agreements with States who are beginning to develop their mDL platforms. States are collaborating through various organizations such as industry and technical associations (e.g.., AAMVA, ISO, and NIST) to foster cross-compatibility and acceptance of their mDLs. Still, a full set of comprehensive industry standards is likely years away from publication. States, and their respective technology partners, absent a common framework and criteria, will likely continue on independent development paths.

Costs of the Final Rule

The final rule establishes a waiver process whereby States can voluntarily apply for a mDL waiver that will allow Federal agencies to accept State-issued mDLs for official purposes. For States, TSA, and relying parties, there are mDL waiver application and ancillary costs associated with compliance of the final rule.

In the RIA for the Notice of Proposed Rulemaking, TSA estimated that the rule would cost $826.8 million undiscounted over 10 years, $695.6 million discounted at 3 percent, and $562.0 million discounted at 7 percent. In this final RIA, TSA updates this analysis and estimates the 10-year total cost of the rule to be $829.8 million undiscounted, $698.1 million discounted at 3 percent, and $563.9 million discounted at 7 percent. The difference in cost estimates are due to the following:

A clarification in the final rule highlights that a State employee or contractor that is independent of the State's driver's licensing agency may conduct the audit that is part of the mDL waiver application and mDL waiver reapplication. TSA estimates the cost of such audits a State may conduct and the proportion of States that may conduct an audit in this manner. TSA then develops a weighted average audit cost taking into account States that may use its own employees to conduct the audit and those States that may hire an independent entity. This weighted average audit cost of $26,974 is lower than the original estimate for the audit cost of $32,500.

TSA added the cost to TSA for training instructors to provide mDL related training to Transportation Security Officers (TSOs) and decreased the assumption of the average number per training class. TSOs must undergo training to verify mDLs for identification

purposes at the security checkpoint. TSA estimates a weighted average training instructor hourly compensation rate and the number of training classes instructors will conduct for the TSO training population.

TSA revised upwards its assumption on the number of mDL readers Federal facilities will procure on average, from 1 to 2. This revision doubles the total cost of mDL readers for relying parties.

Table ES-1 displays the 10-year total cost of the final rule by entity. The total cost to States comprises roughly 98 percent of the total cost of the final rule.

Table ES-1: Total Cost of the Final Rule by Entity ($ Thousands)

Year	States Cost	TSA Cost	Relying Party Cost	Total Final Rule Cost		
				d = a + b + c		
	a	b	c	**Undiscounted**	**Discounted at 3%**	**Discounted at 7%**
1	$42,876	$1,595	$79	$44,551	$43,253	$41,636
2	$62,791	$1,715	$919	$65,424	$61,669	$57,144
3	$71,352	$1,209	$537	$73,098	$66,895	$59,670
4	$83,182	$1,102	$381	$84,665	$75,224	$64,591
5	$94,460	$864	$375	$95,699	$82,551	$68,232
6	$91,467	$695	$1,160	$93,323	$78,156	$62,185
7	$91,881	$727	$742	$93,351	$75,903	$58,134
8	$91,743	$730	$558	$93,031	$73,440	$54,145
9	$91,467	$719	$531	$92,717	$71,060	$50,432
10	$91,881	$774	$1,289	$93,944	$69,903	$47,757
Total	**$813,102**	**$10,128**	**$6,573**	**$829,803**	**$698,054**	**$563,925**
Annualized					**$81,833**	**$80,290**

Note: Totals may not add due to rounding.

States incur costs to familiarize themselves with the requirements of the final rule, purchase access to an industry standard[4], submit a mDL waiver application, submit a mDL waiver reapplication, and comply with waiver application requirements. As displayed in Table ES-2, the 10-year cost to States is $813.1 million undiscounted, $683.7 million discounted at 3 percent, and $552.0 million discounted at 7 percent.

[4] States must purchase access to international standard ISO/IEC 18013, Part 5, entitled, "Personal identification – ISO-compliant driving license."

Table ES-2: Total Cost of the Final Rule to States ($ Thousands)

Year	Familiar-ization Cost	Stand-ards Cost	Waiver Applic-ation Cost	Reapplic-ation Cost	Escalated Review Cost	Infras-tructure Security Cost	Total Cost to States		
							g = a + b + c + d + e + f		
	a	b	c	d	e	f	Un-discounted	Discounted at 3%	Discounted at 7%
1	$63.3	$1.9	$592.1	$0	$7.2	$42,212	$42,876	$41,628	$40,071
2	$0	$1.3	$394.7	$0	$12.0	$62,383	$62,791	$59,186	$54,844
3	$0	$0.6	$197.4	$0	$14.4	$71,140	$71,352	$65,297	$58,244
4	$0	$0.6	$197.4	$413.9	$16.8	$82,553	$83,182	$73,906	$63,459
5	$0	$0.6	$197.4	$275.9	$19.2	$93,967	$94,460	$81,482	$67,349
6	$0	$0	$0	$138.0	$19.2	$91,310	$91,467	$76,603	$60,949
7	$0	$0	$0	$551.8	$19.2	$91,310	$91,881	$74,708	$57,219
8	$0	$0	$0	$413.9	$19.2	$91,310	$91,743	$72,423	$53,395
9	$0	$0	$0	$138.0	$19.2	$91,310	$91,467	$70,102	$49,752
10	$0	$0	$0	$551.8	$19.2	$91,310	$91,881	$68,368	$46,708
Total	**$63.3**	**$5.0**	**$1,578.9**	**$2,483.2**	**$165.2**	**$808,807**	**$813,102**	**$683,704**	**$551,991**
Annual-ized								**$80,151**	**$78,591**

Note: Totals may not add due to rounding.

TSA incurs costs associated with purchasing access to industry standards, reviewing mDL waiver applications and mDL waiver reapplications, mDL readers, and training transportation security officers. As displayed in Table ES-3, the 10-year cost to TSA is $10.13 million undiscounted, $8.87 million discounted at 3 percent, and $7.56 million discounted at 7 percent.

Table ES-3: Total Cost of the Final Rule to TSA ($ Thousands)

Year	Standards Cost	Application Review Cost	Reapplication Review Cost	mDL Reader Cost	mDL Training Cost	Total Cost to TSA		
						f = a + b + c + d + e		
	a	b	c	d	e	Undiscounted	Discounted at 3%	Discounted at 7%
1	$0.4	$74.3	$0	$1,418.8	$101.5	$1,595.0	$1,548.5	$1,490.6
2	$0	$49.5	$0	$699.8	$965.4	$1,714.7	$1,616.3	$1,497.7
3	$0	$24.8	$0	$547.9	$636.2	$1,208.9	$1,106.4	$986.9
4	$0	$24.8	$39.9	$440.6	$596.4	$1,101.8	$978.9	$840.5
5	$0	$24.8	$26.6	$240.6	$571.7	$863.7	$745.0	$615.8
6	$0	$0.0	$13.3	$199.4	$482.0	$694.7	$581.8	$462.9
7	$0	$0.0	$53.2	$200.9	$473.3	$727.5	$591.5	$453.0
8	$0	$0.0	$39.9	$202.3	$487.4	$729.7	$576.0	$424.7
9	$0	$0.0	$13.3	$203.8	$501.4	$718.5	$550.7	$390.8
10	$0	$0.0	$53.2	$205.2	$515.5	$773.9	$575.9	$393.4
Total	**$0.4**	**$198.2**	**$239.6**	**$4,359.4**	**$5,330.8**	**$10,128.4**	**$8,870.9**	**$7,556.4**
Annualized							**$1,039.9**	**$1,075.9**

Note: Totals may not add due to rounding.

Relying parties represent federal agencies that elect to accept a mDLs for official purposes. Per the final rule, relying parties will be required to use a mDL reader to retrieve and validate mDL data. As a result, relying parties will incur costs to procure mDL readers should they voluntarily choose to accept mDLs for official purposes. TSA is also considered a relying party, but due to the particular impact to TSA related to the requirement for REAL ID compliant identification to board federally regulated commercial aircraft, those impacts are discussed separately. As displayed in Table ES-4, the estimated 10-year cost to relying parties is $6.57 million undiscounted, $5.48 million discounted at 3 percent, and $4.38 million discounted at 7 percent.

Table ES-4: Total Cost of the Final Rule to Other Relying Parties ($ Thousands)

Year	mDL Reader Cost	Total Cost to Relying Parties		
		b = a		
	a	Undiscounted	Discounted at 3%	Discounted at 7%
1	$79.3	$79.3	$76.9	$74.1
2	$918.8	$918.8	$866.0	$802.5
3	$537.4	$537.4	$491.8	$438.7
4	$381.3	$381.3	$338.8	$290.9
5	$375.0	$375.0	$323.5	$267.4
6	$1,160.4	$1,160.4	$971.9	$773.3
7	$741.8	$741.8	$603.1	$461.9
8	$558.3	$558.3	$440.7	$324.9
9	$531.2	$531.2	$407.1	$288.9
10	$1,289.1	$1,289.1	$959.2	$655.3
Total	**$6,572.6**	**$6,572.6**	**$5,479.1**	**$4,377.9**
Annualized			**$642.3**	**$623.3**

Note: Totals may not add due to rounding.

TSA has also identified other non-quantified impacts to the affected entities. States may incur costs to: monitor and study mDL technology as it evolves; resolve the underlying issues that could lead to a suspension or termination of a mDL waiver; report serious threats to security, privacy, or data integrity; report material changes to mDL issuance processes; remove conflicts of interest with an independent auditor; and request reconsideration of a denied mDL waiver application. TSA may incur costs to: investigate circumstances that could lead to suspension or termination of a State's mDL waiver; provide notice to States, relying parties, and the public related to mDL waiver suspensions or terminations; develop an IT solution that maintains an up-to-date list of States with valid mDL waivers; develop materials related to the process changes to adapt to mDL systems; and resolve a request for reconsideration of a denied mDL waiver application. mDL users may incur costs with additional application requirements to obtain a mDL. Relying parties may incur costs to resolve any security or privacy issue with the mDL reader; report serious threats to security, privacy, or data integrity; verifying the list of States with valid mDL waivers; train personnel to verify mDLs; and update the public on identification policies.

Benefits of the Final Rule

This final rule will establish waiver application criteria that will serve as interim requirements regarding security, privacy, and interoperability for those States choosing to issue mDLs that can be accepted for official purposes. The waiver application criteria may help guide States in their development of mDL technologies which will provide a shared standard that could potentially improve efficiency while also promoting higher security, privacy, and interoperability safeguards.

Specifically, the application criteria set requirements establishing security and privacy protections to safeguard an mDL holder's identity data. They also set interoperability requirements to ensure secure transactions with Federal agencies. States, via their mDL waiver application, must establish that their mDLs meet the application criteria thus helping to ensure adequate security and privacy protections are in place. Absent the final rule, individual States may choose insufficient security and privacy safeguards for mDL technologies that fail to meet the intended security purposes of REAL ID and the privacy needs of users.

In addition, mDLs themselves may provide additional security benefits by offering a more secure verification of an individual's identity and authentication of an individual's credential compared to usage of physical cards. In general, mDLs use a cryptographic protocol that ensures the mDL was obtained through a trusted authority, such as the Department of Motor Vehicles.[5] This same protocol may prevent the alteration of mDLs and reduce the threat of counterfeit credentials. Furthermore, mDLs offer increased protection of personal identifiers by preventing over-collection of information. mDLs enable the ability to share only those attributes necessary to validate the user identity with the relying party.[6] On the other hand, when using a physical card, the user has no ability to limit the information that is shared (e.g., home address), regardless of the amount of information required for verification.

[5] "Secure Technology Alliance's Mobile Driver's License Workshop Showcases mDLs Role in the Future of Identification," Secure Technology Alliance (Dec. 14, 2021), available at https://www.globenewswire.com/en/news-release/2021/12/14/2351757/22743/en/Secure-Technology-Alliance-s-Mobile-Driver-s-License-Workshop-Showcases-mDLs-Role-in-The-Future-of-Identification.html

[6] Kelts, David, "Mobile ID can bring both convenience and citizen privacy," Biometric Update.com (Jul. 15, 2021), available at https://www.biometricupdate.com/202107/mobile-id-can-bring-both-convenience-and-citizen-privacy

The final rule may also foster increased adoption of mDLs. As of April 2024, 10 States have a mDL application available for their residents to obtain a digital version of the physical driver's license on an electronic device.[7] Nearly 3.7 million residents in the six States with publicly available data have a mDL which represent 18.9 percent of licensed drivers.[8] This number of residents obtaining a mDL will rise as more States offer it as an option which DHS estimates to be a total of 40 States (the 10 currently with a mDL available to residents plus 30 additional States) over the next 10 years.

Establishment of waiver application criteria can help guide State development and investment in mDLs. The application criteria will foster a level of standardization that could potentially reduce complexity by limiting individual State nuances while also ensuring interoperability across States and with the Federal government. This increased interoperability reduces implementation costs by limiting the need for different protocols or mechanisms to accept mDLs from individual States.

Identification of waiver application criteria that can be used across States will also result in efficiency gains through multiple States pursuing similar objectives, goals, and solutions. Establishing application criteria early in the technology development process has the potential to align development activities across disparate efforts. Early guidance might also reduce re-work or modifications required in future regulations thus saving time and resources redesigning systems and functionality to adhere to subsequent Federal guidelines. Furthermore, providing waiver application criteria for States to follow may potentially encourage investment in mDLs and the pooling of resources to develop mDL technology capabilities across States and address common concerns or issues. Such collaboration, or unity of effort, may help spread research and development risk and reduce inefficiencies that may arise from States working independently.

Finally, the final rule will allow Federal agencies to continue to accept mDLs for official purposes when REAL ID enforcement begins. This will avoid the sudden halting of mDL acceptance when REAL ID enforcement begins which will reverse trends in providing for a

[7] The ten States that have made a mDL application available to their residents are Arizona, Colorado, Delaware, Georgia, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, and Utah.
[8] The six States with mDL user data are Arizona, Colorado, Delaware, Louisiana, Mississippi, and Utah. 3,691,300 mDLs ÷ 19,507,342 licensed drivers = 18.9 percent.

more customer-friendly screening experience. The experience and insight learned through the mDL waiver process could also be used to inform future standards and rulemaking.

Accounting Statement

The Office of Management and Budget (OMB) A-4 Accounting Statement in Table ES-5 presents annualized costs and qualitative benefits of the final rule in 2022 dollars.

Table ES-5: OMB A-4 Accounting Statement ($ Millions, 2022 Dollars)

Category	Estimates			Units			Notes
	Primary Estimate	Low Estimate	High Estimate	Year Dollar	Discount Rate	Period Covered	
Benefits							
Annualized Monetized ($ millions/year)	N/A	N/A	N/A	N/A	7%	N/A	Not quantified
	N/A	N/A	N/A	N/A	3%	N/A	
Annualized Quantified	N/A	N/A	N/A	N/A	7%	N/A	Not quantified
	N/A	N/A	N/A	N/A	3%	N/A	
Qualitative	The final rule, if finalized, will produce benefits by reducing uncertainty in the mDL technology environment by helping to foster a minimum level of security, privacy and interoperability, and reduce potential costs through the alignment of development activities across disparate efforts.						
Costs							
Annualized Monetized ($ millions/year)	$80.29	N/A	N/A	2022	7%	10 years	Final Rule RIA
	$81.83	N/A	N/A	2022	3%	10 years	
Annualized Quantified	N/A	N/A	N/A	N/A	7%	N/A	Not quantified
	N/A	N/A	N/A	N/A	3%	N/A	
Qualitative	States may incur incremental costs to: monitor and study mDL technology as it evolves; resolve the underlying issues that could lead to a suspension or termination of a mDL waiver; report serious threats to security, privacy, or data integrity; report material changes to mDL issuance processes; remove conflicts of interest with an independent auditor; and request reconsideration of a denied mDL waiver application. TSA may incur costs to: investigate circumstances that could lead to suspension or termination of a State's mDL waiver; provide notice to States, relying parties, and the public related to mDL waiver suspensions or terminations; develop an IT solution that maintains an up-to-date list of States with valid mDL waiver; develop materials related to the process changes to adapt to mDL systems; and resolve a request for reconsideration of a denied mDL waiver application. mDL users may incur costs with additional application requirements to obtain a mDL. Relying parties may incur costs to resolve any security or privacy issue with the mDL reader; report serious threats to security, privacy, or data integrity; verifying the list of States with valid mDL waivers; train personnel to verify mDLs; and update the public on identification policies.						
Transfers							
From/To	From:	N/A		To:	N/A		
Effects On							
State, Local, and/or Tribal Government	The final rule will result in States incurring $813.1 million undiscounted in costs over 10 years and $552.0 million discounted at 7 percent. Undiscounted costs range from $42.9 million to $94.5 million across all States in any given year, or $40.1 million to $67.3 million discounted at 7 percent. Discounted at 7 percent, annualized costs will be $78.6 million.						
Small Business	None						Final Rule Regulatory Flexibility Analysis
Wages	None						
Growth	Not measured						

Alternatives Considered

The first alternative (Alternative 1) represents the status quo, or no change relative to the creation of a mDL waiver process. This represents a scenario without a rulemaking or a waiver process to enable mDL acceptance for REAL ID official purposes. Under this alternative, States would continue to develop mDLs in a less structured manner while waiting for relevant guiding standards to be published which would likely result in dissimilar mDL implementation and technology characteristics. TSA rejects this alternative because it would likely result in larger costs in the long run when formal mDL standards are finalized. It also does not address the market failures associated with a lack of common standards, such as increased complexity of mDL use across States.

The second alternative (Alternative 2) features the same requirements of the final rule, including a mDL waiver process, but would allow Federal agencies to accept mDLs issued by certain States whose mDLs TSA has deemed to be "low-risk," and therefore presumptively eligible to be granted a waiver. TSA would identify mDLs from States who have fulfilled the final rule's minimum requirements prior to applying for the waiver and have sufficiently demonstrated (e.g., via TSA initiative or recent evaluation by a trusted party) to TSA that their mDL systems present adequate interoperability and low security and privacy risk. The presumptively eligible provision would allow Federal agencies to immediately (or conditionally) accept those "low-risk" mDLs for official purposes pending final approval of the respective State mDL waiver applications. TSA rejects this alternative because TSA believes the emerging technology underlying mDLs is insufficiently established to accept the security, privacy, and interoperability of States' mDL systems without an evaluation by TSA or another trusted party. In addition, a similar presumptive eligibility process is not available for other aspects of REAL ID and such an action would not reduce the burden on States or TSA to comply with any framework TSA develops.

Under the third alternative (Alternative 3), TSA would establish more comprehensive requirements than those in the final rule to ensure mDLs comply with the REAL ID Act. States would be required to adopt these more comprehensive requirements to issue valid mDLs that can be accepted for official purposes. These technical requirements could include specific standards related to mDL issuance, provisioning, verification, readers, privacy, and

other security measures. TSA rejects this alternative because promulgating more comprehensive requirements for mDLs is premature, as both industry standards and technology used by States are still evolving. Restrictive requirements could stifle innovation by forcing all stakeholders to pivot toward compliance. This could impede TSA from identifying and implementing a more efficient regulatory approach in the future.

Finally, under the fourth alternative (Alternative 4), instead of a waiver process, TSA would first establish minimum requirements for issuing REAL ID compliant mDLs before TSA later sets more comprehensive requirements as additional guidance and standards become available in the mid- and long-term. The interim minimum requirements would consist of similar requirements for security, privacy, and interoperability, based on nineteen industry and government standards and guidelines, described in the final rule regarding waiver applications. Alternative 4 effectively would codify standards that may become obsolete in the near future, as existing standards are revised, emerging standards publish, and new cyber threats proliferate. TSA rejects this alternative because establishing minimum requirements that may become obsolete in the near future may limit the ability for TSA to revise standards quickly and would increase the security and privacy risks of accepting mDLs. In addition, this alternative implies a degree of certainty that TSA believes is premature given emerging standards that are still in development. Finally, costs under Alternative 4 would roughly be similar to costs under the final rule, as both options would require audits and other compliance costs.

Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act (RFA) of 1980, as amended, was enacted by Congress to ensure that small entities (small businesses, small not-for-profit organizations, and small governmental jurisdictions) will not be unnecessarily or disproportionately burdened by federal regulations. Section 605 of the RFA allows an agency to certify a rule in lieu of preparing an analysis if the regulation is not expected to have a significant economic impact on a substantial number of small entities.

In accordance with the RFA, TSA has not prepared a Regulatory Flexibility Analysis and pursuant to 5 U.S.C. 605(b), the Secretary certifies that the final rule will not have a significant economic impact on a substantial number of small entities. The final rule will

directly impact States that voluntarily choose to apply for a waiver that will permit mDLs issued by those States to be accepted for official Federal purposes.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501. et seq.) requires that TSA consider the impact of paperwork and other information collection burdens imposed on the public. Under the provisions of 44 U.S.C. 3507(d), TSA must obtain approval from OMB for each collection of information it conducts, sponsors, or requires through regulations.

The final rule establishes a process for States to apply to TSA for a mDL waiver. Such a request is voluntary but will require the submission of a mDL waiver application, resubmission of a mDL waiver application deemed insufficient or denied, and reapplication for a mDL waiver when the term of the mDL waiver expires. States must report to TSA any significant modifications that a State makes to its mDL issuance processes that materially differ from information that the State provided in its application. States must also report imminent or serious threats to security, privacy, or data integrity that acceptance of a State's mDL may cause. All of these items will be considered new information collections.

A State's mDL waivers will be valid for three years. Therefore, States granted a mDL waiver in Year 1 will need to reapply in Year 4 which is outside the three year renewal cycle of this particular information collection.

TSA does not possess sufficient information to estimate the frequency of States reporting material changes to mDL issuance processes or threats to security, privacy, or data integrity. TSA assumes there will be no reporting within the three-year Paperwork Reduction Act cycle.

TSA estimates the final rule's total three-year burden for mDL waiver applications, mDL waiver resubmissions, and mDL waiver reapplications is 57 responses and 735 hours. TSA estimates an average yearly burden of 19 responses and 245 hours. Table ES-6 shows the information collection and corresponding burden-hours for States under the requirements of the final rule.

Table ES-6: PRA Information Collection Responses and Burden Hours

Collection Activity	Number of Responses						3-Year Time Burden (hours)	Average Annual Time Burden (hours)
	Year 1	Year 2	Year 3	3-Year Total Responses	Average Annual Responses	Time Per Response (hours)		
	a	b	c	d = a + b + c	e = d / 3	f	g = d * f	h = g / 3
mDL Waiver Application	15.0	10.0	5.0	30.0	10.0	20	600	200
mDL Waiver Resubmission	13.5	9.0	4.5	27.0	9.0	5	135	45
mDL Waiver Reapplication	0	0	0	0	0	15	0	0
Total	**28.5**	**19.0**	**9.5**	**57.0**	**19.0**		**735**	**245**

In addition, States will incur costs associated with audits of their mDL infrastructure. TSA estimates an average cost of $26,974 per submission. States will incur this cost for the initial mDL waiver application and mDL waiver reapplication. As there are no reapplications anticipated for this information collection request, TSA multiplies the annual average number of mDL waiver applications from Table ES-6 (10) and the audit cost of $26,974 for an average annual mDL waiver application audit cost of $269,742.

1 INTRODUCTION

This Regulatory Impact Analysis (RIA) provides supporting documentation and analysis of the Transportation Security Administration (TSA) Mobile Driver's License (mDL) Waiver Final Rulemaking (TSA-2023-0002), also referred to as "the final rule" throughout this document.

This chapter provides background surrounding the final rule, the need for regulation, and a description of its content. It also provides a description of the current mDL environment or baseline. Chapter 2 introduces a description of the affected population as well as assumptions and data used to complete this RIA. Chapter 3 presents a cost analysis of the final rule over a ten-year period of analysis. Chapter 4 presents a description of benefits associated with the final rule. Chapter 5 analyzes policy alternatives considered by TSA and compares them to the final rule. Chapter 6 presents a certification that the final rule is not expected to have a significant economic impact on a substantial number of small entities, as required by the Regulatory Flexibility Act. Chapter 7 details the additional burden imposed by the final rule as required by the Paperwork Reduction Act (PRA). Chapter 8 describes the findings from the International Trade Impact Assessment. Finally, Chapter 9 presents findings from the Unfunded Mandates Reform Act (UMRA) analysis.

1.1 Background

The REAL ID Act and implementing regulations, 6 CFR part 37, set minimum requirements for State-issued driver's licenses and identification cards (DL/ID) accepted by Federal agencies for official purposes, including accessing Federal facilities, boarding federally regulated commercial aircraft, entering nuclear power plants, and any other purposes that the Secretary of the Department of Homeland Security (DHS) shall determine.[9] On January 29, 2008, DHS published a final rule implementing the Act's requirements.[10] Enforcement of the

[9] The REAL ID Act of 2005, Division B of the FY05 Emergency Supplemental Appropriations Act, as amended, Public Law 109– 13,119 Stat. 302.

[10] Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes; Final Rule, 73 FR 5272 (Jan. 29, 2008); codified at 6 CFR part 37.DHS subsequently issued five other Final Rules and Interim Final Rules amending the regulation, including changes to compliance deadlines and state extension submission dates. *See* 74 FR 49308 (Sep. 28, 2009), 74 FR 68477 (Dec. 28, 2009) (Final Rule, stay), 76

requirement to use REAL ID compliant cards for official purposes begins May 7, 2025.[11] On this date, Federal agencies will be prohibited from accepting a State or territory issued driver's license or identification card for official purposes unless the card is compliant with the REAL ID Act and regulations.[12]

On December 21, 2020, Congress passed the REAL ID Modernization Act[13] to amend the REAL ID Act to reflect new technologies that did not exist when the law was enacted more than 15 years ago. Among other updates, the REAL ID Modernization Act clarified that mDLs are subject to REAL ID requirements. The REAL ID regulations therefore must be updated to include additional requirements to ensure that mDLs meet equivalent levels of security currently imposed on REAL ID-compliant physical cards so they can be accepted for REAL ID official purposes. As a result, mDLs must also be REAL ID-compliant to be accepted when REAL ID enforcement begins.

On December 5, 2022, DHS announced an extension of the REAL ID full enforcement date from May 3, 2023 to May 7, 2025.[14] The extension affords residents more time to obtain a REAL ID since REAL ID adoption has been hindered by the COVID pandemic.

A number of organizations are developing standards that may inform the use of mDLs. These standards will include those issued by the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), the American Association of Motor Vehicle Administrators (AAMVA), and the National Institute for Standards and Technology (NIST). Although some relevant standards have been published, many others will not be published for a few years.[15] Nonetheless, there is rapid development of mDL technology and investment by States and others looking to implement and offer mDLs.

FR 12269 (Mar. 7, 2011), 79 FR 77836 (Dec. 29, 2014); 86 FR 23237 (May 3, 2021). In addition to Final Rules, DHS also published an Information Collection Request in the Federal Register in 2016. See 81 FR 8736 (Feb. 22, 2016).

[11] See 6 CFR 37.5(b); DHS Press Release, DHS Announces Extension of REAL ID Full Enforcement Deadline (Dec. 5, 2022), https://www.dhs.gov/news/2022/12/05/dhs-announces-extension-real-id-full-enforcement-deadline.

[12] See 6 CFR 37.5(b).

[13] REAL ID Modernization Act, Title X of Division U of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 2304, *available at* https://docs.house.gov/billsthisweek/20201221/BILLS-116HR133SA-RCP-116-68.pdf.

[14] DHS Press Release, DHS Announces Extension of REAL ID Full Enforcement Deadline (Dec. 5, 2022), https://www.dhs.gov/news/2022/12/05/dhs-announces-extension-real-id-full-enforcement-deadline.

[15] ISO/IEC series 23220, Parts 3, 5, and 6 concerning digital identity. Part 5 of series 18013 was published in September of 2021. A number of AAMVA guidelines informing development of mDL have been published.

Currently, States and territories are partnering with different entities and developing mDL technologies in an uncoordinated manner with varying implementation and security approaches.

This final rule will enable TSA to issue States a temporary waiver of certain REAL ID Act requirements for mDLs (mDL waiver) that will permit mDL acceptance for official Federal purposes from those States. The final rule will establish a process for all States, the District of Columbia, and U.S. territories (collectively referred to as States, hereafter) to apply to TSA for a waiver that will require the State submission of an application that includes supporting data and other documentation necessary to establish that their mDLs meet specified criteria concerning security, privacy, and interoperability.

In addition, Federal agencies that opt to accept mDLs for official Federal purposes will also be required to procure a mDL reader in order to validate the identity of the mDL holder.

The final rule is part of an iterative process that will permit acceptance of mDLs for REAL ID official purposes pending promulgation of a subsequent rule, as described in the preamble, that sets more comprehensive requirements for mDLs. The subsequent rule will repeal the temporary waiver provisions established in this final rule.

1.2 Need for Regulatory Action

The need for this rule arises from TSA's desire to accommodate and foster the rapid pace of mDL innovation, while maintaining security under the requirements of the REAL ID Act and regulations. Under the REAL ID Act of 2005 (as amended) and 6 CFR part 37, a Federal agency may not accept for any official purpose a State-issued driver's license or identification card, either physical or a mDL, that does not meet the specified REAL ID regulatory requirements when full enforcement begins. Current regulations do not include requirements that will enable States to develop REAL ID-compliant mDLs. Additionally, a number of key industry standards on mDL implementation are in development, but are still a few years from publication. However, States are already independently investing significant resources to develop mDLs technology approaches based on varying or proprietary standards, which may lack the security, privacy, and interoperability requirements for Federal acceptance for official purposes and result in an inefficient deployment of mDLs across the

United States. Furthermore, even if key mDL industry standards were available, there is no requirement for States to adopt or enforce a particular set of standards.[16]

Requiring different protocols or mechanisms to accept mDLs from different States will be costlier than under a common standard. States offering mDLs with different operating systems and a lack of interoperability standards increases the complexity of mDL use across States (e.g., out of State licenses) and for Federal institutions (e.g., accepting mDLs for official purposes identified in the REAL ID Act). For instance, checking multiple types of mDLs may necessitate additional expenses to procure multiple types of verification technology and train workers to use them.[17] In addition, many of the benefits of mDLs stem from network effects of multiple States accepting mDLs, thus encouraging a critical mass of people to use them and places to accept them. States may not account for these broader benefits and thus underinvest in a socially optimal level of mDL technology and standards (e.g., privacy, security, and interoperability) that will be acceptable by Federal agencies. Furthermore, if, or when, a common standard is produced, States may have to incur additional costs to modify the systems already created in the absence of Federal guidance.

The final rule will set standardized requirements for the security, privacy, and interoperability of mDLs that will help overcome coordination challenges and potentially reduce the cost of mDL implementation.[18] Absent the final rule, individual States may choose insufficient security and privacy safeguards for mDL technologies that fail to meet the security purposes of REAL ID requirements, privacy needs of users, and necessary interoperability for secure acceptance by Federal agencies. The final rule helps address these considerations by establishing a waiver process that allows mDL use for official purposes by only those States who provide sufficient safeguards. Specifically, the final rule will identify

[16] The American Association of Motor Vehicle Administrators (AAMVA) is an organization that could encourage States to voluntarily follow identified standards, but does not possess the authority to require the adoption of a common standard.

[17] AAMVA's Mobile Driver's License Functional Needs White Paper discusses the importance of mDL interoperability standards to ensure a single mDL reader can read mDLs from different issuers. Mobile Driver's License Functional Needs White Paper, Version 0.9. January 2019, Page 10. Accessed on 2 February 2022 from: https://www.aamva.org/getmedia/0d4c1159-9b06-4f49-8cc5-532efb986d8d/Mobile-Drivers-License-Functional-Needs-Whitepaper.pdf

[18] Mobile Driver's License Functional Needs White Paper, Version 0.9. January 2019. Accessed on 2 February 2022 from: https://www.aamva.org/getmedia/0d4c1159-9b06-4f49-8cc5-532efb986d8d/Mobile-Drivers-License-Functional-Needs-Whitepaper.pdf

technical requirements, as part of the waiver application process, in the areas of provisioning, mDL issuance infrastructure controls, privacy controls, and interoperability (hereafter referred to as the application criteria or waiver application criteria). The identified application criteria draw upon industry standards, best practices, and government guidelines.

It is unlikely the market will be able to establish a common standard within the timeframe for REAL ID enforcement. Without timely guidance from the Federal government, States risk developing mDLs that may differ significantly from each other and requirements that evolve from future standards for mDLs and potentially face a substantial burden to redevelop products acceptable by Federal agencies. The mDL waiver process established by the final rule may help fill this gap. A reduction in such uncertainty may also encourage more investment in advancing mDL technology and the development of more efficient market solutions.

Although the mDL industry and standards continue to evolve, TSA believes it is appropriate to use its regulatory authority to establish a waiver process to provide and establish a common standard to facilitate the acceptance of mDLs. TSA is proceeding with an incremental rulemaking approach to serve as a regulatory bridge for this emerging technology. The mDL waiver process will enable secure, interoperable, and privacy preserving use of mDLs when REAL ID enforcement begins, while also providing TSA additional operational experience and data from use of mDL technology before eventually issuing final, permanent regulations.

1.3 Statutory Authority

The REAL ID Act sets minimum requirements for State-issued DL/ID accepted by Federal agencies for official purposes, including accessing Federal facilities, boarding federally regulated commercial aircraft, and entering nuclear power plants.[19]

On December 21, 2020, Congress passed the REAL ID Modernization Act[20] to update the REAL ID Act to reflect the current operating environment and technology that did not exist

[19] The REAL ID Act of 2005, Division B of the FY05 Emergency Supplemental Appropriations Act, as amended, Public Law 109– 13,119 Stat. 302.
[20] REAL ID Modernization Act, Title X of Division U of the Consolidated Appropriations Act, 2021, Pub. L No. 116-260, 134 Stat. 2304, available at https://docs.house.gov/billsthisweek/20201221/BILLS-116HR133SA-RCP-116-68.pdf.

when the law was enacted more than 15 years ago. Among other updates, the REAL ID Modernization Act clarified that mDLs are subject to REAL ID requirements by amending the definitions of ''driver's license'' and ''identification card'' to specifically include mDLs that have been issued in accordance with regulations prescribed by the Secretary.[21] The REAL ID regulations must therefore be updated to distinguish which existing regulatory requirements in 6 CFR part 37 apply to mDLs versus physical DL/ID and to include additional requirements to ensure that mDLs meet equivalent levels of security currently imposed on REAL ID-compliant physical DL/ID.

1.4 Requirements of the Final Rule

This final rule will enable TSA to issue a waiver to States that will permit mDLs issued by those States to be accepted for official Federal purposes. The mDL waiver will be valid for three years. The final rule will establish a process for States to voluntarily submit an application for a mDL waiver. As part of the application process for the mDL waiver, States will be required to submit an application, including supporting data and other documentation, to establish that their mDLs meet specified requirements concerning security, privacy, and interoperability. The application criteria list a series of requirements in the areas of: (1) provisioning, (2) issuance, (3) privacy, and (4) interoperability. The application criteria are based on already published requirements and guidance from, including, but not limited to, ISO/IEC, the AAMVA mDL Implementation Guidelines, and NIST. This rule will apply only to mDLs, not physical DL/ID.

If the TSA determines, upon submission of an application by a State, that a State's mDL could be securely accepted under the terms of a waiver, TSA may issue such State a certificate of waiver. The waiver process will also allow TSA to work with States on a case-by-case basis to ensure that their mDLs provide the minimum safeguards necessary for acceptance by Federal agencies.

The rule will not require Federal agencies to accept mDLs issued by any State that has been granted a waiver; agencies will continue to exercise discretion over their identification

[21] Sec. 1001 of the REAL ID Modernization Act, Title X of Division U of the Consolidated Appropriations Act, 2021.

policies. However, if Federal agencies were to accept mDLs, they will be required to procure a mDL reader in order to validate the identity of the mDL holder.

1.5 Baseline Summary

Current regulations do not include requirements that enable States to issue REAL ID-compliant mDLs. In the absence of regulation, States may follow independent and at times diverging paths to developing their own mDLs. Some States are further along in their efforts than others. As of December 2023, ten States had a mDL application available for their residents to obtain a digital version of the physical driver's license on the smartphone.[22] Around twenty other States have taken steps towards implementing a mDL, including running pilot programs at the State level, conducting feasibility studies, and/or developing the mDL application for future use. Several States are advanced in their planning and implementation of mDLs and recognize them as legal identification for certain State services. However, many of the States that have implemented some form of mDL still require physical identification for certain activities and do not recognize mDLs for law enforcement purposes. Technology companies of all sizes are pursuing agreements with States who are beginning to develop their mDL platforms. States are collaborating through various organizations such as industry and technical associations (e.g., AAMVA, ISO, and NIST) to foster cross-compatibility and acceptance of their mDLs. Still, a full set of comprehensive industry standards is likely years away from publication. States and their respective technology partners, absent a common standard, will likely continue on independent development paths.

[22] The ten States are Arizona, Colorado, Delaware, Georgia, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, and Utah.

2 POPULATIONS AFFECTED, QUANTITIES, UNIT COSTS, AND OTHER ASSUMPTIONS

In this chapter, TSA presents the population of entities affected, data and assumptions on current practices, and expected changes resulting from the implementation of the final rule. TSA uses this information to complete its RIA and measure costs from the final rule over a ten-year period of analysis.

This information — and the assumptions made as a result — includes populations of the entities affected by the final rule, compensation rates, and burden estimates for entities to complete the requirements of the final rule. The chapter also presents estimates and assumptions made about other cost factors associated with the final rule, including mDL reader costs and mDL training costs.

2.1 Timeframe of the Analysis

This analysis estimates costs over a ten-year period. TSA anticipates the final rule taking effect in 2024 which is represented by Year 1 in the analysis. However, TSA notes that the mDL waiver process established by the final rule may be superseded by a more descriptive rule within the identified ten-year period of analysis.

2.2 Affected Population

The following subsections present the methodology, data, and assumptions used to calculate the populations of affected entities under the final rule. The final rule will enable TSA to issue to States a waiver that will permit mDLs issued by those States to be accepted for official Federal purposes. The final rule establishes a process for States to apply for a mDL waiver and for TSA to review and approve State applications. As a result, TSA considers States and TSA to be directly impacted by the final rule.

The final rule will also indirectly impact other entities; specifically, mDL users (e.g., individuals carrying mobile devices), mDL technology providers (e.g., companies or vendors developing mDL technology), and relying parties (e.g., Federal agencies that accept mDLs for official purposes).

2.2.1 States

All States are eligible to apply for a mDL waiver as discussed in the final rule. A mDL waiver issued to States will temporarily waive the requirement set in 6 CFR 37.5(b) and permit mDLs issued by those States to be accepted for official Federal purposes, provided the State meets specified waiver application criteria concerning security, privacy, and interoperability.

States are at various stages of mDL development. Currently, ten states have a mDL application available for their residents to obtain a digital version of the physical driver's license on an electronic device.[23] Three States are currently piloting or have piloted mDLs at the State level[24], and at least 15 States have indicated they are studying mDLs or considering enabling legislation.[25] Additionally, in September 2021 and March 2022, Apple announced that it was working with 13 States to enable their mDLs to be provisioned into Apple's Wallet app.[26]

TSA uses the current state of mDL implementation to help inform how many States will request a mDL waiver during the period of analysis. TSA assumes that not all States eligible for the mDL waiver will apply. These may include States who have not taken action towards mDL implementation or have not fully implemented other aspects of REAL ID[27] or whose States' setup or philosophy are not amenable towards participation and may wait until the mDL ecosystem is more fully developed. Nonetheless, TSA believes the final rule may also spur some, but not all, States into developing a mDL and requesting a mDL waiver.

TSA assumes all ten States with a current mDL solution will apply for the mDL waiver. In addition, TSA assumes all States testing mDLs with TSA (an additional six States that do not

[23] The ten states that have made a mDL application available to their residents are Arizona, Colorado, Delaware, Georgia, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, and Utah.
[24] The three States that are or have piloted a mDL are Florida, Iowa, and Virginia.
[25] The fifteen States include California, District of Columbia, Hawaii, Illinois, Indiana, Kentucky, Michigan, New Jersey, New York, North Dakota, Pennsylvania, Puerto Rico, Tennessee, Texas, and Wyoming
[26] The 13 States include Arizona, Colorado, Connecticut, Georgia, Hawaii, Iowa, Kentucky, Maryland, Mississippi, Ohio, Oklahoma, Puerto Rico, and Utah. "Apple announces first states signed up to adopt driver's licenses and state IDs in Apple Wallet," Apple (Sep. 1, 2021), available at https://www.apple.com/newsroom/2021/09/apple-announces-first-states-to-adopt-drivers-licenses-and-state-ids-in-wallet/. "Apple launches the first driver's license and state ID in Wallet with Arizona," Apple (Mar. 23, 2022), available at https://www.apple.com/newsroom/2022/03/apple-launches-the-first-drivers-license-and-state-id-in-wallet-with-arizona/.
[27] All States are currently compliant with REAL ID requirements but not all territories are compliant.

have a current mDL solution[28]) will also apply for the mDL waiver. Given the current level of interest in mDL, TSA assumes 15 states will apply for a mDL waiver in Year 1 of the analysis, 10 states in Year 2, and 5 states each in Years 3 through 5.[29] TSA assumes no States will apply for a mDL waiver after Year 5 of the analysis because they are likely waiting for a more established mDL ecosystem, a more descriptive rule (that will supersede the waiver process), or are not interested in pursuing a mDL. TSA bases its assumptions for the waiver population on input from TSA subject matter experts (SMEs), SME interaction with States, and the theory that as more States adopt mDLs other States will too.

After submission of the mDL waiver application and a TSA review, TSA can make one of three determinations on the request for a mDL waiver: approval, insufficient, or denial. The final rule allows States to amend an insufficient or denied waiver application and resubmit for TSA review. TSA anticipates all initial mDL waiver applications will include some level of back and forth with TSA resulting from insufficiency. However, TSA intends to work with States to meet the waiver application criteria and as a result does not anticipate any applications being denied. Nonetheless, based on input from SMEs, TSA assumes 90 percent of applicants will resubmit their waiver applications initially deemed insufficient. TSA assumes the remaining 10 percent of applications will no longer pursue a mDL waiver and wait until the mDL environment is more fully developed. TSA assumes that all mDL waiver resubmissions will be approved and that the approval will occur in the same year of the initial mDL waiver application.

Under the current requirements (6 CFR 37.55) for physical REAL IDs, State issuers of identification cards must certify that they are meeting the requirements stipulated in the REAL ID Act and must recertify compliance every three years. Under the final rule, mDLs will be subject to the same recertification requirements and timelines as physical REAL IDs. Therefore, mDL waivers granted in accordance with the final rule will have a term of three years. States seeking an extension of a certificate of waiver will need to submit a new

[28] There are 13 States participating in mDL testing with TSA, but six States do not have a current mDL solution available to their residents at this time. The six States that are participating in TSA mDL testing but do not have a current mDL solution include: Connecticut, Hawaii, Iowa, Kentucky, Ohio, and Puerto Rico.

[29] TSA assumes the 15 States that will apply for a mDL waiver in Year 1 are comprised of all the States with a current mDL solution (10 States) and most States testing mDLs with TSA (an additional 5 unique States). The States that will apply in Years 2, 3, 4, and 5 consist of the remaining State testing mDLs with TSA, States that have taken some sort of action towards implementing a mDL, and new State entrants.

application prior to the expiration of their current waiver. This reapplication process will follow the same process as submitting the initial mDL waiver application. States will have to comply with the waiver application criteria. For instance, TSA anticipates States granted a mDL waiver in Year 1 will reapply in Year 4 and States granted a mDL waiver in Year 2 will reapply in Year 5.

Table 2-1 presents the estimated number of State mDL waiver applications, the estimated number of States that will receive a mDL waiver, and the number of mDL waiver reapplications throughout the 10-year period of analysis.

Table 2-1: mDL Waiver Applications, Issuance, and Reapplications over 10-year Period of Analysis

Year	State mDL Waiver Applications	mDL Waivers Granted	mDL Waiver Reapplications[30]
1	15.0	13.5	0
2	10.0	9.0	0
3	5.0	4.5	0
4	5.0	4.5	13.5
5	5.0	4.5	9.0
6	0	0	4.5
7	0	0	18.0
8	0	0	13.5
9	0	0	4.5
10	0	0	18.0
Total	**40.0**	**36.0**	**81.0**

2.2.2 TSA

TSA will incur direct costs associated with reviewing mDL waiver applications, resubmissions, and reapplications. This will entail reviewing materials provided by States, determining if the State meets the identified waiver application criteria, and providing a disposition of TSA's response. TSA, will also incur costs associated with mDL readers as a relying party. TSA will be particularly impacted in relation to use of mDLs for the boarding of federally regulated commercial aircraft, an official Federal purpose as defined in the

[30] States whose mDL waivers are granted in Year 1, Year 2, and Year 3 will reapply in Year 4, Year 5, and Year 6 respectively. Year 7 reapplications are equal to the mDL waivers granted in Year 4 and the mDL waiver reapplications in Year 4 (4.5 waivers in Year 4 and 13.5 reapplications in Year 4). Year 8 renewals are equal the mDL waivers granted in Year 5 and the mDL waiver reapplications in Year 5 (4.5 waivers in Year 5 and 9.0 reapplications in Year 5). Year 9 reapplications and Year 10 reapplications are equal to the number of reapplications in Year 6 and Year 7, respectively.

REAL ID Act.[31] Due to this particular impact on TSA operations, the costs associated with mDL readers is captured separately in Section 2.6.1.

2.2.3 mDL Users

The final rule indirectly affects users of mDLs, specifically individuals who will present a mDL as a form of identity verification. Generally, once a State develops a mDL, residents of that State who have a valid physical driver's license or identification card issued by that State could download an application on their smartphone to obtain a digital representation of the physical card, or mDL.[32] If a State is granted a mDL waiver, residents of that State with a valid and unexpired REAL ID-compliant physical DL/ID issued by a REAL ID-compliant State could use their mDL for identity verification at Federal agencies for official purposes, at the discretion of the Federal agency.

TSA approximates the number of mDL users over the 10-year period of analysis for an average State that may apply for a mDL waiver. TSA is unable to determine exactly which States will apply for the mDL waiver, or when, but assumes States that have a mDL application or are testing mDLs with TSA will likely be among the States to apply for a mDL waiver (Section 2.2.1). With this in mind, TSA first calculates the number of licensed drivers in an average State that may apply for a mDL waiver. TSA takes the 2010 and 2020 licensed drivers population in 14 States with a mDL or testing mDLs with TSA[33] and calculates the compound annual growth rate (CAGR) of 0.91 percent. See Table 2-2 for the specific State information and calculations.

[31] Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes; Final Rule, 73 FR 5272 (Jan. 29, 2008); codified at 6 CFR part 37 (2008 Final Rule).
[32] The mDL user will need to link their identity to their smartphone (e.g. registering the user's phone number, entering information from the physical driver's license, and taking a self-portrait) before gaining access to their mDL.
[33] Licensed drivers population comes from the Federal Highway Administration, Highway Statistics 2020, Table DL-201, Licensed Drivers by State, available at https://www.fhwa.dot.gov/policyinformation/statistics/2020/dl201.cfm. Data for Puerto Rico is not available.

Table 2-2: 2010-2020 Population Growth Rate of Licensed Drivers in State with mDL or testing mDL with TSA

State	2010 a	2020 b	2010-20 CAGR $c = ((b \div a)^{1/10}) - 1$
Arizona	4,443,647	5,681,495	2.49%
Colorado	3,779,273	4,299,447	1.30%
Connecticut	2,934,576	2,508,670	-1.56%
Delaware	695,036	829,226	1.78%
Georgia	6,507,888	7,521,750	1.46%
Hawaii	909,407	921,547	0.13%
Iowa	2,166,759	2,268,916	0.46%
Kentucky	2,950,191	2,905,632	-0.15%
Louisiana	3,133,631	3,416,648	0.87%
Maryland	3,918,305	4,454,266	1.29%
Mississippi	1,928,487	2,017,111	0.45%
Ohio	7,963,372	8,100,273	0.17%
Oklahoma	2,348,718	2,550,560	0.83%
Utah	1,659,835	2,149,766	2.62%
Average	**3,238,509**	**3,544,665**	**0.91%**

Next, TSA estimates mDL user adoption rates for the population of licensed drivers in the average State that may apply for the mDL waiver in order to approximate the number of mDL users for the average State. To calculate a forecast of mDL user adoption rates, TSA obtains mDL user and licensed driver data in the States where mDL user data is available. Table 2-3 presents the number of mDL users in a State in the years after the State offered a mDL. For example, Colorado offered a mDL to its residents in 2019. Two years later, in 2021, Colorado had 150,000 mDL users; three (2022) and four (2023) years later, Colorado had 725,395 users and 1,150,000 users, respectively.[34]

[34] Where cells in Table 2-3 are empty, data on mDL users for that State in that year after mDLs were offered is unavailable. Empty cells do not necessarily represent a case where there were no mDL users in that State in that year.

Table 2-3: Number of mDL Users in Year After mDL Availability

State	Year of mDL Availability	Number of mDL Users in Year after mDL Availability			
		1	2	3	4
Arizona	2021			900,000	
Colorado	2019		150,000	725,395	1,150,000
Delaware	2021		30,300		
Louisiana	2018		500,000	800,000	1,500,000
Mississippi	2021	51,000			
Utah	2023	60,000			
Total		111,000	680,300	2,425,395	2,650,000

TSA estimates the number of licensed drivers in those States with mDL user data for years beyond 2020.[35] TSA uses the 2010-20 CAGR for the respective State and applies this CAGR to the number of licensed drivers in the State in 2020 (Table 2-2) to forecast the number of licensed drivers in 2021 through 2024. Table 2-4 presents the number of licensed drivers in those States with mDL user data in the years after mDL availability. The number of licensed drivers in the table align with years from Table 2-3. For example, since Colorado offered a mDL in 2019, and mDL user data for Colorado is available for years 2021 through 2023, Table 2-4 describes the number of licensed drivers in Colorado for years 2021 through 2023 (two to four years after mDL availability in the state).[36]

[35] TSA uses licensed drivers data up to 2020, and estimates the number of licensed drivers in years after 2020. Licensed drivers population comes from the Federal Highway Administration, Highway Statistics 2020, Table DL-201, Licensed Drivers by State, available at https://www.fhwa.dot.gov/policyinformation/statistics/2020/dl201.cfm

[36] Empty cells in indicate where mDL user data is not available in a particular State and a particular year after the State offered a mDL.

Table 2-4: Number of Licensed Drivers in States with mDL User Data in Year After mDL Availability

State	Year of mDL Availability	Number of Licensed Drivers in Year after mDL Availability			
		1	2	3	4
Arizona	2021			6,268,330	
Colorado	2019		4,355,249	4,411,776	4,469,036
Delaware	2021		874,324		
Louisiana	2018		3,416,648	3,446,319	3,476,248
Mississippi	2021	2,035,319			
Utah	2023	2,384,085			
Total		4,419,403	8,646,222	14,126,425	7,945,284

Note: Totals may not add due to rounding.

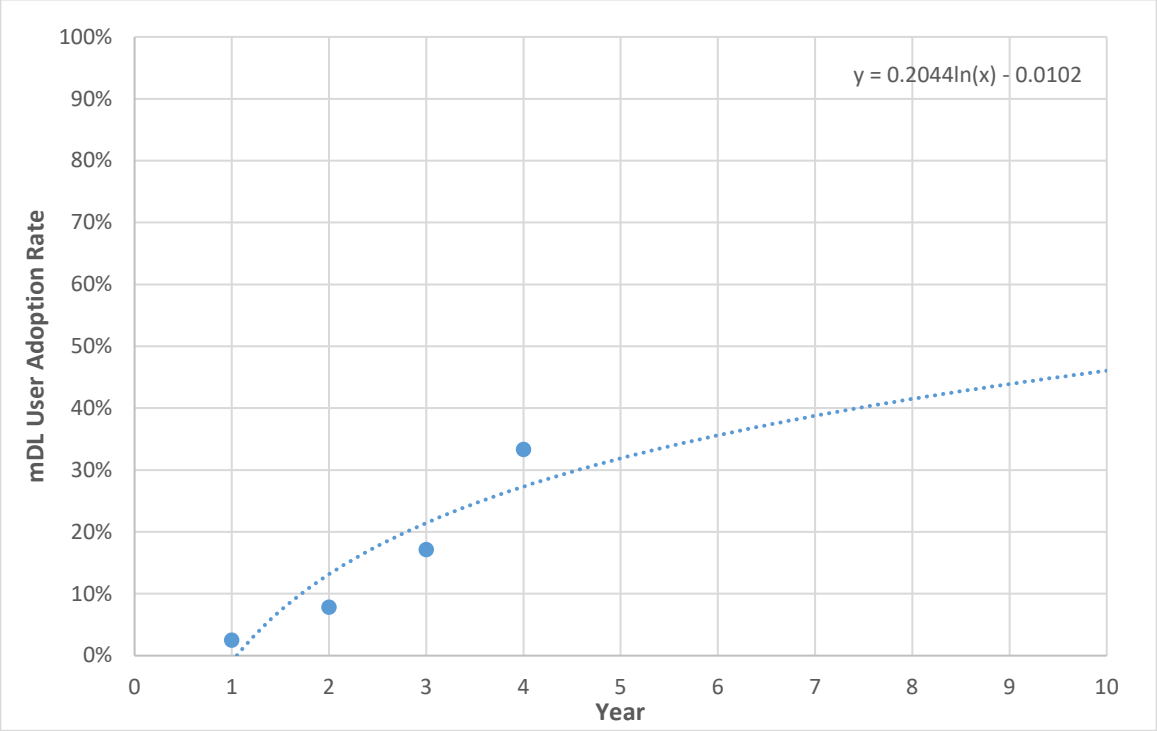
TSA estimates mDL user adoption rates based on mDL user (Table 2-3) and licensed driver (Table 2-4) data. First, where data is available, TSA sums the number of mDL users in the respective year after mDL availability. For example, in the first year after mDL availability, TSA sums the number of mDL users in Mississippi and Utah; in the second year after mDL availability, TSA sums the number of mDL users in Colorado, Delaware, and Louisiana, and so on. Then, where mDL user data is available for a State, TSA sums the number of licensed drivers across States in the year after mDL availability. For example, TSA sums the number of licensed drivers in Mississippi and Utah one year after mDL availability (2022 for Mississippi and 2024 for Utah) since TSA possesses mDL user data one year after mDLs for those two States. Last, TSA divides the total number of mDL users in each year after mDL availability and the respective total number of licensed drivers to estimate mDL user adoption rates over time. Table 2-5 presents the estimated mDL user adoption rates, where mDL user data are available.

Table 2-5: mDL User Adoption Rates

Year After mDL Availability	mDL Users	Licensed Drivers	mDL User Adoption Rate
	a	b	c = a ÷ b
1	111,000	4,419,403	2.5%
2	680,300	8,646,222	7.9%
3	2,425,395	14,126,425	17.2%
4	2,650,000	7,945,284	33.4%

Based on the estimated mDL user adoption rates (Table 2-5), TSA calculates a logarithmic trend line to forecast the adoption rates over a 10-year period of analysis.[37] The logarithmic trend line describes a quick rise in adoption followed by a curved pattern as adoption levels off. Figure 1 describes the forecasted mDL adoption rate.

Figure 1: Forecasted mDL User Adoption Rate



TSA then multiplies the compound annual growth rate of 0.91 percent to the 2020 population of the average State that may apply for a mDL waiver (Table 2-2) to estimate the population over the 10-year period of analysis, starting in 2024.[38] Next, TSA multiplies the forecasted mDL adoption rate by the forecasted licensed drivers population to estimate a cumulative number of mDL users in an average State that may apply for a mDL waiver. Table 2-6

[37] TSA calculates the forecast mDL adoption rate from the following logarithmic trend line: y = (0.2044 x ln(t)) – 0.0102. This trend line estimates a negative value for year 1. As a result, TSA estimates the year 1 adoption rate as half the forecasted adoption rate for year 2.

[38] In Year 0 of the analysis, 2023, the population of licensed drivers in the average State will be: 3,544,665 [2020 population of licensed drivers in average State] x (1 + 0.0091 [compound annual growth rate]) $^{(2023 - 2020)}$ = 3,642,036.
The term t in the equation represents the year of the analysis. In Year 1 of the analysis, 2024, the population of licensed drivers in the average State will be: 3,642,036 [2023 population of licensed drivers in average State] x (1 + 0.0091 [compound annual growth rate]) ^{1} = 3,675,083.
Similarly, in Year 2 of the analysis, 2025, the population of licensed drivers in the average State will be: 3,642,036 [2023 population of licensed drivers in average State] x (1 + 0.0091 [compound annual growth rate]) ^{2} = 3,708,431.

presents the cumulative mDL users in an average State that may apply for a mDL waiver over the 10-year period of analysis.

Table 2-6: mDL Users in Average State

Year	mDL Adoption Rate[39] a = (0.2124 × ln(t)) - 0.0568	Licensed Drivers in Avg. State with mDL or in Evaluation Program b = 3,642,036 × (1.009074)^t	Cumulative Total mDL Users in Avg. State c = a × b
1	6.5740%	3,675,083	241,599
2	13.1479%	3,742,081	492,006
3	21.4356%	3,810,300	816,762
4	27.3159%	3,879,763	1,059,791
5	31.8769%	3,950,493	1,259,295
6	35.6036%	4,022,511	1,432,157
7	38.7544%	4,095,843	1,587,319
8	41.4838%	4,170,511	1,730,086
9	43.8913%	4,246,541	1,863,861
10	46.0448%	4,323,957	1,990,959

2.2.4 mDL Technology Providers

The final rule will also indirectly affect technology providers that are developing and building applications and trust platforms to launch mDLs. Several large players in the technology industry are currently involved in supporting development of mDL technology. Apple will allow iPhone users in thirteen states[40] to add a mDL through its Wallet application. In addition, TSA is partnering with Apple in a program to allow these mDL holders to present a mDL for identity verification at the TSA security checkpoint at certain airport locations. Samsung is integrating mDLs into its Samsung Wallet application.[41] Google is testing support for mDLs in the Wallet application on Android phones.[42] Get

[39] For Year 1 of the analysis, the trend line predicts a negative value for the adoption rate. Instead, TSA calculates an adoption rate for Year 1 of the analysis by dividing the average of Colorado's and Louisiana's adoption rates in Year 2 by 2 (representing linear growth in Years 1 and 2). Year 1 adoption rate of 4.5212% = 9.03917% [average of Colorado's and Louisiana's adoption rates in Year 2] ÷ 2.

[40] The 13 States include Arizona, Colorado, Connecticut, Georgia, Hawaii, Iowa, Kentucky, Maryland, Mississippi, Ohio, Oklahoma, Puerto Rico, and Utah.

[41] "Introducing Samsung Wallet: An Easy-To-Use, Secure Platform That Holds Everything Your Digital Life Needs," Samsung Newsroom (Jun. 16, 2022), available at https://news.samsung.com/global/introducing-samsung-wallet-an-easy-to-use-secure-platform-that-holds-everything-your-digital-life-needs.

[42] Shakir, Umar, "Google is beta testing digital state ID cards in its Android Wallet app," The Verge (Dec. 15, 2022), available at https://www.theverge.com/2022/12/15/23510774/google-digital-state-id-cards-android-13-wallet-app-maryland.

Group and IDEMIA, have released mDL readers through the Apple App Store and Google Play Store.[43]

In addition, TSA is aware through public reporting that States are pursuing contracts for mDL software development from a variety of companies of various sizes. For example, IDEMIA developed a mDL application for Arizona, Delaware, Mississippi, and Oklahoma.[44] IDEMIA is also currently working on a mDL application for Iowa.[45] GET Group and Scytales launched a mDL pilot program for Utah.[46] Thales received an award to pilot a secure mDL product in several States and is now developing verification services for Florida.[47] The state of Louisiana implemented a mDL product, "LA Wallet," with the assistance of Envoc.[48]

The mDL environment is a rapidly developing technology with various players in the market. As such, there is a high level of uncertainty about the future of this technology and the different arrangements States may enter into with such companies or which developers may enter the market in the future.

2.2.5 Relying Parties

Federal agencies that voluntarily elect to accept mDLs for official purposes as described in the REAL ID Act, including accessing federal facilities and entering nuclear power plants[49], are indirectly impacted by the rule (hereafter referred to as relying parties). TSA is also considered a relying party, but due to the particular impact to TSA related to the requirement for REAL ID related to boarding federally regulated commercial aircraft, those impacts are

[43] Idemia's Mobile ID Verify application is free. GET Group's trial mDL reader, GET Mobile Verify, is free for a limited time. Bouclin, Jordan, "GET Group North America Launches GET Mobile Verify for iOS and Android Devices," GET Group NA (Mar. 8, 2022), available at https://getgroupna.com/2022/03/08/get-group-north-america-launches-get-mobile-verify-for-ios-and-android-devices/.
[44] "Mobile ID," IDEMIA, available at https://na.idemia.com/dmv/mobile-id/.
[45] "IDEMIA Mobile ID for Iowa DOT Passes UL's Conformity Assessment," IDEMIA (Mar. 11, 2021), available at https://www.idemia.com/press-release/idemia-mobile-id-iowa-dot-passes-uls-mdl-conformity-assessment-2021-03-11.
[46] Bouclin, Jordan, "Utah Launces Pioneering Pilot on Mobile Driver's License," Get Group NA (Mar. 30, 2021), available at https://getgroupna.com/2021/03/30/utah-launches-pioneering-pilot-on-mobile-drivers-license/.
[47] Burt, Chris, "Mobile drivers' licenses from Thales coming to Florida in 2021," Biometric Update.com (Oct. 14, 2020), available at https://www.biometricupdate.com/202010/mobile-drivers-licenses-from-thales-coming-to-florida-in-2021.
[48] "LA Wallet: First DDL in the Nation," Envoc, available at https://envoc.com/work/portfolio/la-wallet.
[49] Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes; Final Rule, 73 FR 5272 (Jan. 29, 2008); codified at 6 CFR part 37 (2008 Final Rule).

discussed separately. In addition, for this analysis, relying parties do not include non-Federal agencies or entities that may accept mDLs, such as State agencies, law enforcement, and businesses.

Federal agencies that voluntarily accept mDLs for official purposes must procure a reader in order to retrieve mDL data and validate the mDL data. Apart from TSA, TSA does not possess specific information concerning which Federal agencies will choose to accept mDLs at this time. However, TSA applies general technology adoption rates to a selection of Federal facilities to estimate the population of Federal facilities that may potentially accept mDLs.

TSA assumes only public facing buildings requiring secure entry will consider accepting mDLs. TSA also assumes that buildings part of the same installation or complex will only have one area that will require the public to show identification to gain entry, and that each unique installation will procure one mDL reader. In the General Services Administration's Federal Real Property Profile dataset for civilian agencies, as of FY2020, the Federal government owned or leased 7,762 unique installations.[50]

However, TSA assumes that not all of the Federal installations will choose to accept mDLs. TSA uses adoption rates of Apple Pay as a proxy to develop estimates of the number of Federal facilities that will accept mDLs. Similar to mDLs, Apple Pay provides a method to store information electronically for use in contactless transactions. At the introduction of Apple Pay in 2014, 3 percent of retailers accepted Apple Pay.[51] This adoption rate increased

[50] TSA excludes from the General Services Administration database of Federal properties land and structures, all disposed assets or assets to be disposed, all unutilized buildings, and all buildings not located in the United States. This results in 109,815 out of 313,549 records. TSA then excludes buildings with a predominant use category that is unlikely to require secure entry or public access, including: post offices, schools, comfort stations/restrooms, museums, other institutional uses, border/inspection stations, facility security, land port of entry, aviation security related, public facing facility, and child care center. This results in 91,905 records. Of those 91,905 records, there are 7,762 unique installation identifiers (Installation ID). General Services Administration. 2020 Federal Real Property Profile Data for Civilian Agencies. https://catalog.data.gov/dataset/fy-2020-federal-real-property-profile-data-for-civilian-agencies.

[51] TSA estimates three percent as the adoption rate in year 1 in its trend forecast. "After Initially Slow Adoption, More and More People Taking a Bite out of Apple Pay," CUtoday.info (Aug. 21, 2022), available at https://www.cutoday.info/Fresh-Today/After-Initially-Slow-Adoption-More-and-More-People-Taking-a-Bite-out-of-Apple-Pay.

to 65 percent in 2019, 85 percent in 2020[52], and 90 percent in 2022[53]. The rate of Apple Pay adoption exhibits a quick rise in percentage with the rate of increase leveling off as adoption becomes more widespread. As a result, TSA models a logarithmic trend line for the relying party adoption scenarios to forecast the trend adoption rate in the years of missing data. However, TSA assumes relying party mDL reader adoption is unlikely to be as widespread as Apple Pay. TSA technology SMEs assume relying party mDL reader adoption rates will be half those of Apple Pay over a 10-year period.[54]

Table 2-7 displays the relying party population over the 10-year period of analysis. In addition to relying party mDL reader adoption rates, TSA also calculates the positive change in adoption rates year-over-year to represent the new federal facilities that will procure mDL readers. TSA then multiplies the change in year-over-year forecasted adoption rates by the number of unique Federal installations (7,762) to estimate the annual total of new Federal facilities that will accept mDLs for official purposes.

[52] Munster, Gene and David Stokman, "Apple Pay Availability Growing 20% Plus," Loup (Nov. 5, 2020), available at https://loupfunds.com/apple-pay-availability-growing-20-plus/.
[53] CUtoday.info.
[54] TSA does not have data to estimate mDL adoption rates but assumes the adoption rate will be between zero and the entirety of Apple Pay adoption and thus uses the midpoint or 50 percent of Apply Pay adoption. TSA SME assume mDL adoption could be similar to Apply Pay but that not everyone with a digital wallet will adopt a mDL as the technology is not as pervasive or widely applicable.

Table 2-7: Relying Party Population over 10-Year Period of Analysis

Year	Adoption rate a [55]	Year-over-year % change $b = a_t - a_{t-1}$	Number of New Relying Parties c = b × 7,762
1	1.3%	1.3%	98.6
2	16.0%	14.7%	1,142.8
3	24.6%	8.6%	668.5
4	30.7%	6.1%	474.3
5	35.5%	4.7%	367.9
6	39.3%	3.9%	300.6
7	42.6%	3.3%	254.1
8	45.4%	2.8%	220.1
9	47.9%	2.5%	194.2
10	50.0%	2.1%	160.0
Total			**3,881.0**

Note: Totals may not add due to rounding.

2.3 Compensation Rates

TSA estimates labor-related costs for employees working for State government entities impacted by final rule, as well as TSA personnel, to help calculate various costs of the final rule. Specifically, TSA uses average hourly compensation rates that encompass salary and non-salary compensation, such as employer-provided healthcare and retirement contributions. The labor categories used in this RIA are from State government and Federal government. Note that calculations as applied may result in slight differences from the numbers shown due to rounding of shown decimal places.

2.3.1 State Government

TSA estimates average hourly compensation rates using hourly wage data for State government labor categories from the Department of Labor, Bureau of Labor Statistics

[55] The adoption rate is based on the trend line equation is $y = 0.4248\ln(x) + 0.0254$, and then multiplied by one half. The forecasted trend line for the Apple Pay adoption rates in Year 10 calculates a value greater than 100 percent, and TSA adjusts this value to 100 percent.

(BLS).[56] TSA adjusts BLS wage rates using a compensation factor of 1.564 that accounts for employment benefits, such as health insurance and retirement contributions.[57]

TSA SMEs assume the equivalent of the following labor categories will complete the mDL waiver application on behalf of the State: a solutions architect, an IT manager, the administrator of the State motor vehicles administration (DMV), and a lawyer.[58] TSA also assumes at least one employee in each of the aforementioned labor categories will review the final rule. TSA also assumes that one of these employees is the REAL ID point of contact for the State who will also be the point of contact for the State's mDL.

TSA SMEs also assume the equivalent of a senior accountant will conduct the audit report required by the mDL waiver application should a State choose to use a State employee that is independent of the driver's licensing agency and holds the appropriate credentials.

In addition, a State customer service representative will handle escalated review calls from mDL users that may experience problems provisioning a mDL onto the user's electronic device.

---

[56] BLS. May 2022 National Industry-Specific Occupational Employment and Wage Estimates, State Government, including schools and hospitals (NAICS 999201). https://www.bls.gov/oes/2022/may/999201.htm.

[57] TSA calculated the average total compensation ($67.22) which includes non-wage costs, such as health insurance and retirement contributions and the average salary and wages ($42.97) which represents wages and salaries only of all quarters in 2022 for the State and Local Government Workers, Management, Professional, and related occupational group. The Management, Professional, and related occupational groups include management, business, financial, computer, engineering, science, educational, legal, and healthcare occupations. Average total compensation per hour in 2022 for the State and Local Government Workers, Management, Professional, and related occupational group = ($66.13 + $66.21 + $67.96 + $68.57) ÷ 4 = $67.22. Average salary and wages per hour in 2022 for the State and Local Government Workers, Management, Professional, and related occupational group = ($42.29 + $42.25 + $43.48 + $43.87) ÷ 4 = $42.97. TSA then calculated the compensation adjustment factor of 1.564 by dividing the average total compensation by the average wage and salaries ($67.22 ÷ $42.97).
BLS, March 2022 Employer Costs for Employee Compensation, Table 3. Employer Costs for Employee Compensation for state and local government workers by occupational and industry group. https://www.bls.gov/news.release/archives/ecec_06162022.htm.
BLS, June 2022 Employer Costs for Employee Compensation, Table 3. Employer Costs for Employee Compensation for state and local government workers by occupational and industry group. https://www.bls.gov/news.release/archives/ecec_09202022.htm.
BLS, September 2022 Employer Costs for Employee Compensation, Table 3. Employer Costs for Employee Compensation for state and local government workers by occupational and industry group. https://www.bls.gov/news.release/archives/ecec_12152022.htm.
BLS, December 2022 Employer Costs for Employee Compensation, Table 3. Employer Costs for Employee Compensation for state and local government workers by occupational and industry group. https://www.bls.gov/news.release/archives/ecec_03172023.htm.

[58] TSA uses the BLS labor category Computer Network Architect as a proxy for solution architect, Computer and Information Systems Managers as a proxy for an IT manager, Chief Executives as a proxy for the administrator of the State DMV.

Table 2-8 presents the relevant BLS average hourly wage rate for a solutions architect, IT manager, DMV administrator, lawyer, and customer service representative.[59] TSA multiplies the respective hourly wage rate by a compensation adjustment factor of 1.564 to account for full costs of employment (or fully load the wage). The resulting average hourly compensation rates for each labor category are also presented in Table 2-8.

Table 2-8: State Government Compensation Rates

Labor Category	Hourly Wage Rate a	Compensation Adjustment Factor b	Hourly Compensation Rate c = a × b
Solution Architect	$44.92	1.564	$70.26
IT Manager	$57.66		$90.19
Administrator of DMV	$72.44		$113.31
Lawyers	$50.66		$79.24
Senior Accountant	$55.39		$86.64
Customer Service Representative	$19.75		$30.89

2.3.2 TSA

TSA estimates employee compensation using Office of Personnel Management data. Total employee compensation includes wages, awards, bonuses, personnel benefits, and transit benefits. TSA assumes that the equivalent of a GS-13 employee will review mDL waiver applications. TSA estimates that the reviewer will have a fully-loaded compensation rate of $73.95 per hour.[60] TSA also assumes that Transportation Security Officers (TSOs) are

[59] BLS. May 2022 National Industry-Specific Occupational Employment and Wage Estimates, State Government, including schools and hospitals (NAICS 999201); using Computer Network Architects (SOC 15-1241), Computer and Information Systems Managers (SOC 11-3021), Chief Executives (SOC 11-1011), Lawyers (SOC 23-1011), Financial Managers (SOC 11-3031), and Customer Service Representatives (SOC 43-4051). https://www.bls.gov/oes/2022/may/999201.htm. Accessed June 1, 2023.

[60] TSA uses the GS wage scale for the Washington D.C. metro area and estimates a 2022 annual fully-loaded compensation of $154,324, based on the sum of all Personnel Compensation and Benefits for GS-13, Step 3 Employees ($113,944 in wages and $40,380 in benefit compensation). Wages available at https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/22Tables/html/DCB.aspx. Accessed April 10, 2024. DHS uses Step 3 in accordance with the agency's internal Modular Cost Model. Benefit compensation is based off of the Modular Cost Model inputs. The model is not publicly available but used to budget personnel related costs. OPM changed the 2,080 work hours to 2,087 by amending 5 U.S.C. 5504(b), the latter is assumed to capture year-to-year fluctuations in work hours. Source: Consolidated Omnibus Budget Reconciliation Act of 1985 (Pub. Law 99-272, April 7, 1986). $73.95 per hour = $154,324 ÷ 2087.

equivalent to a GS-5 employee and will have a fully-loaded compensation rate of $33.36 per hour.[61]

TSA training instructors will provide mDL training to TSOs. Training instructors include employees from pay bands equivalent to GS-5, GS-13, and GS-14 employees.[62] GS-14 employees will have a fully-loaded compensation rate of $87.11 per hour.[63]

2.4 Waiver Application Costs

This section discusses the methodology, data, and assumptions TSA uses to estimate the cost related to the mDL waiver process. Costs include those associated with completing an initial mDL waiver application, mDL waiver resubmission, and mDL waiver reapplication, and TSA reviews to ensure State compliance with the waiver application criteria.

2.4.1 State mDL Waiver Application

States submitting a mDL waiver application will incur costs to collect supporting evidence of their compliance with waiver application criteria, complete the mDL waiver application materials, and hire an independent entity to audit the State mDL system.

TSA technology SMEs estimate that time to collect supporting evidence ranges between 40 to 120 hours. This time burden may also include time needed for familiarization with industry standards. TSA assumes States with more advanced or evolved mDL implementation will spend less time collecting supporting evidence whereas other States will take longer.

As such, TSA assumes States with an active mDL solution or that are testing mDLs with TSA (15 States) are able to collect supporting evidence, on average, in about 40 hours.[64]

---

[61] TSA uses the GS wage scale for the Washington D.C. metro area and estimates a 2022 annual fully-loaded compensation of $69,628, based on the sum of all Personnel Compensation and Benefits for GS-5/6/7 Employees ($48,746 in wages and $20,882 in benefit compensation). $33.36 per hour = $69,628 ÷ 2087.

[62] Training instructors include Security Training Instructors that are also Transportation Security Officers, along with other senior instructors (GS-13 and GS-14 equivalents). TSA estimates these Security Training Instructors are equivalent to a GS-5 employee, and TSA estimates the Security Training Instructors comprise the majority of mDL training instructors.

[63] TSA uses the GS wage scale for the Washington D.C. metro area and estimates a 2022 annual fully-loaded compensation of $181,799, based on the sum of all Personnel Compensation and Benefits for GS-14 Employees ($134,649 in wages and $47,150 in benefit compensation). $87.11 per hour = $181,799 ÷ 2087.

[64] There are currently six States with an active mDL solution, and twelve States that are testing mDLs with TSA. Three of the States participating in TSA mDL testing have active mDL solutions. Thus, there are 15 unique States that either have an active mDL solution or are testing mDLs with TSA (15 States = (6 + 12) -3).

TSA assumes the remaining States applying for a mDL waiver (25 States) will spend, on average, about 120 hours collecting supporting evidence.[65] This results in a weighted average of 90 hours.[66]

States will also incur costs associated with completing the mDL waiver application materials, which includes providing information, documents, and/or data sufficient to explain the means in which the State complies with the application criteria. TSA estimates this will take, on average, about 20 hours for all States who submit a mDL waiver application. Combined with the evidence collection estimate from above, this results in an estimated average State hour burden of 110 hours.

TSA technology SMEs estimate the equivalent of computer network architects and IT managers will comprise the majority of the efforts to complete the mDL waiver application and evidence collection, with each labor category accounting for 45 percent each of the total time burden. The administrator of the State DMV and lawyers each are estimated to account for 5 percent of the total time burden. Based on these effort proportions, TSA calculates a weighted average hourly compensation rate per mDL waiver application of $81.83. Table 2-9 describes the calculation of this weighted hourly compensation rate per mDL waiver application.

Table 2-9: Weighted Average State Hourly Compensation per mDL Waiver Application

Labor Category	State Hourly Compensation Rate a	Percentage of Time Burden b	State Weighted Average Compensation Rate c = a × b
Solution Architect	$70.26	45%	$31.62
IT Manager	$90.19	45%	$40.59
Administrator of DMV	$113.31	5%	$5.67
Lawyers	$79.24	5%	$3.96
Total			**$81.83**

[65] TSA assumes a total of 40 States will apply for the mDL waiver. 25 other States = 40 total States – 15 States with mDL or are testing mDL with TSA.

[66] Weighted average time spent on evidence collection equals 15 States multiplied by 40 hours plus 25 States multiplied by 120 hours whose total is then divided by 40 States (15 States + 25 States).

TSA combines the estimated average State mDL application and evidence collection hour burden (110 hours) by the State weighted hourly compensation rate ($81.83) to calculate a State opportunity unit cost per initial mDL waiver application of $9,001.[67]

In addition, States that apply for the mDL waiver will incur a cost to procure an audit report that verifies the States' mDLs are compliant with the waiver application criteria. States may hire an independent entity or use a State employee(s) or contractor(s) that are independent of the State's driver's licensing agency and holds the appropriate credentials to conduct the audit.

TSA uses estimates of audit costs to ensure compliance with two information security and privacy standards[68] as a guide to develop auditing costs associated with hiring an independent entity. TSA technology SMEs indicate the range of such audit costs to be between $5,000 and $60,000 depending on the scope and complexity of the audit. TSA uses the midpoint of $32,500 as the estimate for the independent entity audit cost.

TSA SMEs estimate the equivalent of a senior accountant will take 120 hours on average to complete the State-run audit. TSA multiplies the 120-hour time burden and the $86.64 hourly compensation of a senior accountant (Table 2-8) to calculate a State-run audit cost of $10,397.

TSA SMEs estimate 25 percent of States will use a State employee to conduct the audit, and the other 75 percent of States an independent entity. TSA SMEs estimate that most States will not possess the resources to be able to conduct State-run audits despite the difference in cost between State-run and independent audits. Based on these proportions, TSA calculates a weighted average audit cost of 26,974.[69]

TSA combines the initial mDL waiver application opportunity cost ($9,001) with the weighted average audit cost ($26,974) to calculate an initial mDL waiver application unit cost of $35,976 per State.

---

[67] State opportunity unit cost per initial mDL waiver application = 110 hours x $81.83 per hour = $9,001.30.
[68] ISO 27001 provides policies for information security systems. AICPA SOC 2 provides guidance for an organization's security, availability, processing integrity, confidentiality and/or privacy controls.
[69] Weighted average audit cost = ($32,500 independent entity audit cost x 75 percent of States) + ($10,397 State-run audit cost x 25 percent of States) = $26,974.20.

2.4.2 State mDL Waiver Resubmission

The final rule allows States to amend an insufficient or denied waiver application and resubmit for TSA review. TSA technology SMEs estimate resubmission of a mDL waiver application and compiling supporting evidence will require 20 to 30 percent of the effort to complete the initial mDL waiver application, excluding the independent entity audit. TSA uses the midpoint of 25 percent of the effort, and multiplies this percent by the time burden to complete the mDL waiver application (110 hours) to calculate a time burden of 27.5 hours to complete a mDL waiver resubmission.

As part of the mDL waiver resubmission, TSA intends to work with States to meet the waiver application criteria. TSA technology SMEs estimate a State time burden of 20 hours for the back-and-forth discussions between States and TSA and related assistance.

TSA calculates a total time burden to States for the mDL waiver resubmission of 47.5 hours by adding the time to complete the mDL waiver resubmission (27.5 hours) and the back-and-forth discussions (20 hours). TSA multiplies the total time burden (47.5 hours) by the State weighted hourly compensation rate of $81.83 (see Section 2.4.1) to calculate a mDL waiver resubmission unit cost of $3,887 per State.[70]

2.4.3 State mDL Waiver Reapplications

Under the final rule, a mDL waiver will be valid for a period of up to three years unless suspended or terminated. At the end of three years, a State will need to submit a mDL waiver reapplication in order to maintain continued acceptance of the State's mDL for official Federal purposes. The mDL waiver reapplication will entail a similar process as the initial mDL waiver application. States will need to complete the mDL waiver application and ensure its systems comply with the waiver application criteria, which will not change absent a subsequent rulemaking. TSA assumes all States that receive a mDL waiver will choose to reapply.

TSA technology SMEs estimate that States will be able to complete the mDL waiver reapplication materials and collect supporting evidence with 75 percent effort of an

[70] State unit cost of mDL waiver resubmission = 47.5 hours (time burden of mDL waiver resubmission) x $81.83 per hour = $3,886.93.

established mDL program (45 hours), utilizing the experience gained during the initial mDL waiver application process.[71]

TSA multiplies the estimated time burden (45 hours) by the weighted hourly compensation rate of $81.83 (see Section 2.4.1) for an estimated mDL waiver reapplication opportunity cost of $3,682. TSA assumes mDL audit costs will remain the same ($26,974) as the initial mDL waiver application. Combining the mDL waiver reapplication opportunity cost and mDL audit cost results in an average mDL waiver reapplication unit cost of $30,657 per State.[72]

2.4.4 TSA mDL Waiver Reviews

TSA will incur costs associated with reviewing initial mDL waiver applications, resubmissions, and reapplications. TSA assumes all such reviews will be processed by staff located in the Washington DC area and not require travel. As such, TSA uses the equivalent of a GS-13 fully loaded compensation rate of $73.95 per hour described in Section 2.3.2 to estimate TSA review costs.

TSA technology SMEs estimate it will take a reviewer, on average, about 40 hours to complete an initial mDL waiver application review. TSA multiplies the reviewer compensation rate of $73.95 per hour by the 40-hour time burden to calculate a TSA initial mDL waiver application review opportunity cost of $2,958 per submission.

The final rule also allows States to amend an insufficient or denied waiver application and resubmit for TSA review. TSA technology SMEs estimate a TSA reviewer will spend 25 percent of the initial review estimate (10 hours) reviewing a resubmitted mDL waiver application that was initially insufficient. TSA will also spend 20 hours assisting States to meet the waiver application criteria (see Section 2.4.2). TSA calculates a total time burden of 30 hours to review mDL waiver resubmissions. TSA multiplies the reviewer compensation rate of $73.95 per hour by the 30-hour time burden to calculate a resubmission review opportunity cost of $2,219 per submission.

[71] State mDL Waiver Reapplications = 75 percent x (20 hours to complete the application materials + 40 hours to collect supporting evidence) = 45 hour time burden.
[72] Average mDL waiver reapplication cost per State = $3,682.35 opportunity cost + $26,974.20 audit cost = $30,656.55.

TSA will also incur costs to review mDL waiver reapplications. TSA assumes such a review will entail a similar process and time burden as the initial mDL waiver application review. Therefore, TSA estimates an average mDL waiver reapplication review cost of $2,958 per submission, which is the same as the initial mDL waiver application review.

2.4.5 Summary of Waiver Application Costs

Table 2-10 summarizes the State and TSA waiver unit costs, including the initial mDL waiver application, mDL waiver resubmission, mDL waiver reapplication, and waiver reviews.

Table 2-10: Waiver Unit Costs

Waiver Application Task	Unit Cost	Relevant Section in RIA
State Initial mDL Waiver Application	$35,976	Section 2.4.1
State mDL Waiver Resubmission	$3,887	Section 2.4.2
State mDL Waiver Reapplication	$30,657	Section 2.4.3
TSA Initial mDL Waiver Application Review	$2,958	Section 2.4.4
TSA mDL Waiver Resubmission Review	$2,219	Section 2.4.4
TSA mDL Waiver Reapplication Review	$2,958	Section 2.4.4

2.5 Compliance with Waiver Application Criteria Costs

The final rule requires States to provide evidence in the mDL waiver application that their mDLs are issued with security, privacy, and interoperability controls sufficient to resist compromise and fraud attempts, safeguard an mDL holder's identity data, and provide interoperability for secure acceptance by Federal agencies. States must comply with the provisioning, issuance, privacy, and interoperability requirements listed in the final rule to obtain a mDL waiver.

The ISO standard 18013-5 and AAMVA mDL Implementation Guidelines (hereafter referred to as the "AAMVA Guidelines") influence many of the requirements of the waiver application criteria. ISO Standard 18013-5 relates to specifications that will allow the verifying party to read the data on the mDL holder's phone and verify that the data came from the issuing authority. The AAMVA Guidelines describe measures for State issuing authorities to support interoperability with other issuing authorities, trust in issuing authorities' mDLs, and a consistent level of privacy. These guidelines leverage and expand on the ISO/IEC 18013-5 standard.

TSA SMEs believe that States implementing a mDL, absent the rule, are highly likely to still comply with the ISO 18013-5 standard and AAMVA Guidelines. TSA believes States recognize the inherent benefit associated with authentication and interoperability as was expressed by State representatives in a variety of venues. For instance, a number of State representatives have reaffirmed the importance of mDL interoperability including TSA acceptance of mDLs and a desire for police outside of their jurisdictions to be able to read their mDLs. In addition, early adopters of mDLs, such as Colorado and Louisiana, who issued mDLs for their resident population prior to the publication of the ISO standard now issue an ISO-compliant mDL (Colorado in November 2022) or intend to do so in the future (Louisiana).

Many of the requirements of the waiver application criteria are already contained within the AAMVA Guidelines. Only the waiver application criteria related to escalated review and infrastructure security/issuance are not contained with the AAMVA Guidelines. Table 2-11 describes the overlap between the requirements of the waiver application criteria and the AAMVA Guidelines.

Table 2-11: Waiver Application Criteria and AAMVA Guidelines Overlap

6 CFR Part 37	Description	Included in AAMVA Guidelines?
10(a)(1)(i)	Data Encryption. Securely encrypt mDL data and an mDL holder's Personally Identifiable Information when such data is transferred during provisioning, and when stored on the State's system(s) and on mDL holders' mobile devices.	Yes
10(a)(1)(ii)	Escalated review. Review repeated failed attempts at provisioning, resolve such failures, and establish criteria to determine when the State will deny provisioning an mDL to a particular mDL applicant.	No
10(a)(1)(iii)	Authentication. Confirm that an mDL applicant has control over the mobile device to which an mDL is being provisioned at the time of provisioning.	Yes
10(a)(1)(iv)	Device identification keys. Confirm that the mDL applicant possesses the mDL device key private key bound to the mDL during provisioning.	Yes
10(a)(1)(v)	User identity verification. Prevent an individual from falsely matching with the licensing agency's records, including portrait images, of other individuals.	Yes
10(a)(1)(vi)	Applicant Presentation. Prevent physical and digital presentation attacks by detecting the liveness of an individual and any alterations to the individual's appearance during remote and in-person provisioning.	Yes
10(a)(1)(vii)	DHS_compliance Data Element. Data element "DHS_compliance" must be marked "F" only for an individual to whom the State has issued a valid and unexpired REAL ID compliant physical driver's license or physical identification card, or as otherwise required by the AAMVA mDL Implementation Guidelines.	Yes
10(a)(1)(viii)	Data Record. Issue mDLs using data, including portrait image, of an individual that matches corresponding data in the database of the issuing State's driver's licensing agency for that individual.	Yes
10(a)(1)(ix)	Records Retention. Manage mDL records and related records, consistent with requirements set forth in the American Association of Motor Vehicle Administrator (AAMVA) Mobile Driver's License Implementation Guidelines.	Yes
10(a)(2)	Infrastructure Security. A State must explain the means it uses to manage the creation, issuance, use, revocation, and destruction of the State's certificate systems and keys in compliance with the requirements set forth in Appendix A.	Partially
10(a)(3)	Privacy. A State must explain the means it uses to protect Personally Identifiable Information during processing, storage, and destruction of REAL ID mDL records and provisioning records.	Yes
10(a)(4)	Interoperability. A State must explain the means it uses to issue mDLs that are interoperable with ISO/IEC 18013-5:2021 and the "AAMVA mDL data element set" defined in the AAMVA mDL Implementation Guidelines.	Yes

Operating under the assumption that States interested in mDLs will comply with the AAMVA Guidelines, TSA assumes the application criteria that overlap with the AAMVA Guidelines will otherwise be incurred and thus not included as a cost of the final rule.

The costs of two application criteria areas are not covered by the AAMVA Guidelines, escalated review and infrastructure security, are discussed below.

2.5.1 Escalated Review

The final rule requires States to establish a process to resolve failed attempts for a prospective mDL holder to provision a mDL onto the mobile device. TSA SMEs believe resolution of this issue will involve existing State DMV customer service call centers. TSA assumes all States building a mDL system will already possess such call centers; which is true for all States participating in TSA's current mDL evaluation programs. Thus, TSA only anticipates an incremental cost burden to establish an escalated review process and resolve such issues.

TSA first estimates the average number of escalated calls a State may handle in a year. TSA assumes provisioning a mDL onto an electronic device only will affect new mDL users; since once the mDL is on the electronic device, users will not have to worry about provisioning and escalated calls to the DMV until purchasing a new device (which is discussed below). TSA uses the cumulative total of mDL users in the average State (Table 2-6) to calculate the number of new mDL users. The number of new users in a year is equal to the cumulative total in the current year minus the cumulative total from the previous year.

In addition, TSA estimates mDL users will replace smartphones once every four years because most current smartphones receive at least four years of security updates.[73] For example, a mDL user that purchases a smartphone in Year 1 of the analysis will purchase a replacement in Year 5. This population replacing the smartphone will need to provision the mDL onto the new device and will be added to the population of new mDL users to obtain the total affected population that will provision the mDL on an annual basis.

TSA estimates the process to provision a mDL onto the electronic device will have a failure rate of 0.03 percent based on the accuracy scores of facial recognition systems.[74] TSA multiplies the failure rate of 0.03 percent by the total number of mDL provisions to calculate the population that experience issues provisioning the mDL and will undergo the escalated review process with the DMV.

[73] Spadafora, Anthony, "When does an old smartphone become unsafe to use?" Tom's Guide (Nov. 17, 2022), available at https://www.tomsguide.com/us/old-phones-unsafe,news-24846.html.
[74] Crumpler, William. "How Accurate Are Facial Recognition Systems – and Why Does It Matter?" Center for Strategic & International Studies (Apr. 14, 2020), available at https://www.csis.org/blogs/technology-policy-blog/how-accurate-are-facial-recognition-systems-%E2%80%93-and-why-does-it-matter.

TSA assumes 100 percent of those experiencing issues with provisioning the mDL will follow through with the escalated review process. TSA believes the benefits of a mDL, the ability to potentially use one for travel and other services, and the relatively short estimated time of the process (less than 10 minutes) positively influences the decision to complete the escalated review process.

Table 2-12 describes the calculation of the number of escalated calls in the average State that applies for a mDL waiver over the 10-year period of analysis, along with the annual average of such calls in the average State.

Table 2-12: Escalated Review Calls per Average State that Applies for a mDL Waiver

Year	Cumulative Total mDL Users in Avg. State a	New mDL Users in Avg. State $b = a_t - a_{t-1}$	mDL Users in Avg. State Re-provisioning $c = b_{t-4} + b_{t-8} + \ldots$	Total mDL User Provisions $d = b + c$	Number of Escalated Calls in Avg. State $e = d \times 0.03\%$
1	241,599	241,599	0	241,599	72.5
2	492,006	250,407	0	250,407	75.1
3	816,762	324,756	0	324,756	97.4
4	1,059,791	243,028	0	243,028	72.9
5	1,259,295	199,504	241,599	441,103	132.3
6	1,432,157	172,862	250,407	423,270	127.0
7	1,587,319	155,162	324,756	479,918	144.0
8	1,730,086	142,766	243,028	385,795	115.7
9	1,863,861	133,775	441,103	574,878	172.5
10	1,990,959	127,098	423,270	550,368	165.1
Total		**1,990,959**	**1,924,164**	**3,915,122**	**1,174.5**
Average					**117.5**

Note: Totals may not add due to rounding.

TSA estimates the average escalated review call to the DMV lasts a duration of 0.15 hours (8.8 minutes), equivalent to the average call handling time for business and IT services industries.[75]

[75] Batt, Rosemary, et al. "U.S. Call Center Industry Report 2004: National Benchmarking Report Strategy, HR Practices & Performance," Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies, Working Paper 05-06, Figure 2.25: Average Call Handling Time Per Customer, page 17. Available at https://uwua.net/wp-content/uploads/2017/01/us-call-center-industry-2004.pdf; accessed April 9, 2024.

2.5.2 Infrastructure Security

The final rule also requires States to implement processes related to infrastructure security, including to manage the creation, issuance, use, revocation, and destruction of the State's certificate systems and keys. The AAMVA Guidelines do not provide specific requirements but state that States should reference NIST SP 800-57 for additional guidance. Since the final rule requires States to take action, the requirements related to infrastructure security represent a cost burden.

TSA assumes States that are granted a mDL waiver will act as their own certificate authority in order to control issuance over mDLs. Certificate authorities must invest in infrastructure security in order to issue digital certificates that verify the identity of the certificate holder. TSA uses publicly available data from Let's Encrypt, a non-profit certificate authority, as a proxy to estimate the cost of the infrastructure security requirements in the final rule. Let's Encrypt spent $2.91 million to operate in 2017.[76] Salaries to ten employees comprised $2.06 million of that amount; however, TSA believes that only eight of the employees were involved in the primary business operations related to the certificate authority. Assuming salaries for Let's Encrypt employees are equal, TSA calculates a revised salary cost of $1.65 million.[77] Similarly, Let's Encrypt lists administrative and legal costs of $0.35 million. TSA excludes this cost as separate from the primary business operations. As a result, TSA sums the salary, hardware/software, and hosting/auditing costs of $1.65 million, $200,000, and $300,000, respectively, to calculate an annual recurring infrastructure security cost of $2.15 million, or $2.54 million in 2022 dollars.[78] In addition, TSA assumes a startup cost for purchases and installation of infrastructure security equal to at least the combined amount of the hardware/software and hosting/auditing costs of $500,000, or $590,410 in 2022 dollars.[79]

[76] Aas, Josh. "What it Costs to Run Let's Encrypt," Let's Encrypt (Sep. 20, 2016), available at https://letsencrypt.org/2016/09/20/what-it-costs-to-run-lets-encrypt.html.
[77] Revised salary cost = ($2,060,000 in total salaries ÷ 10 employees) x 8 employees = $1,648,000. The salary costs from the certificate authority Let's Encrypt are a proxy for labor costs a State may incur to establish their own certificate authority.. TSA does not estimate the number of State employees or the salaries of those employees involved to establish a certificate authority, which may differ from Let's Encrypt.
[78] Annual recurring cost in 2022 dollars = $2,148,000 in 2017 dollars x (127.225 2022 GDP deflator price index ÷ 107.743 2017 GDP deflator price index) = $2,536,400.
[79] Upfront cost in 2022 dollars = $500,000 in 2017 dollars x (127.225 2022 GDP deflator price index ÷ 107.743 2017 GDP deflator price index) = $590,410.

States that are granted a waiver will incur this one-time startup cost in the year it first receives the mDL waiver.

2.6 Reader Costs

TSA assumes TSA and relying parties will incur costs to procure mDL reader equipment.

2.6.1 TSA mDL Readers

Under the final rule, Federal agencies will be able to accept State-issued identification, including mDLs, for official purposes such as boarding federally regulated commercial aircraft, after the REAL ID enforcement date. TSA anticipates usage of mDLs for identity verification at the airport checkpoint will be the largest use case among Federal agencies. As such, TSA has a special interest in allowing for mDLs. Under the rule, reader technology will be necessary to validate data from a mDL holder's mobile device thereby verifying the identity of the mDL holder. TSA plans to integrate the reading of mDLs into its current airport screening infrastructure through the Credential Authentication Technology (CAT) system.

The CAT system is an entire program for authenticating all types of identity documents and performing biometric identity verification. The CAT unit scans physical identity documentation and connects to electronic databases to confirm passenger identity.

TSA assumes that adding the capability of reading mDLs, and specifically the mDL reader, to the CAT system represents a cost of the final rule. TSA currently has plans to implement CAT systems to all airports whose roll-out will occur irrespective of the rule given that the CAT system is able to authenticate other digital identification documents besides the mDL. TSA uses mDL reader cost data and deployment data from TSA program offices to develop assumptions on the number of mDL readers over the 10-year period of analysis and the total cost to procure and operate mDL readers. TSA provides high level cost estimates and does not included specific details of this information in the analysis due to the sensitive nature of the data.

TSA recognizes that some mDL readers may have been procured in connection with the mDL evaluation programs and not the final rule. TSA has not sought to determine the

number or percentage of such mDL readers in relation to mDL evaluation programs. As such, mDL reader costs could be less than the TSA estimates in this analysis.

2.6.2 mDL Readers for Relying Parties

Other Federal agencies will likely use different reader technology compared to TSA, which uses a solution specific to the airport screening process. Reader equipment could take a variety of formats, including potential applications on smartphones. Software and application developers like Get Group and IDEMIA have released mDL readers for relying parties through the Apple App Store and Google Play Store; Idemia's Mobile ID Verify application is free, and GET Group's trial mDL reader, GET Mobile Verify, is free for a limited time.[80] However, the cost and format of mDL readers is very uncertain as it is a developing technology. Reflecting this uncertainty in cost, and based on public comments received, TSA uses an average price of a smartphone of $402 to represent the cost of a mDL reader for relying parties plus or minus 35 percent for a range of $261.30 to $542.70.[81] TSA assumes a Federal facility that accepts mDLs (Table 2-7) will procure two readers, on average, to validate mDLs. However, TSA recognizes there is uncertainty regarding the development of mDL reader technology, their implementation, and potential additional readers that relying parties will purchase. In addition, DHS/TSA recommends mDL users continue to carry physical licenses which can serve as a backup if necessary.

TSA also assumes relying parties incur replacement costs to purchase new readers that replace those at the end of the useful life. TSA applies the average price of a smartphone, $402, to replacement purchases. TSA estimates relying parties will replace readers on a similar schedule to smartphones; specifically once every four years as most current smartphones receive at least four years of security updates.[82] For example, a relying party that purchases a smartphone in Year 1 of the analysis to act as a mDL reader will purchase a

[80] Bouclin, Jordan, "GET Group North America Launches GET Mobile Verify for iOS and Android Devices," GET Group NA (Mar. 8, 2022), available at https://getgroupna.com/2022/03/08/get-group-north-america-launches-get-mobile-verify-for-ios-and-android-devices/

[81] "Global Smartphone Shipments Expected to Decline 3.5% in 2022, Amidst Global Uncertainty and Weaker Demand, According to IDC," International Data Corporation (Jun. 1, 2022), available at https://www.idc.com/getdoc.jsp?containerId=prUS49226922. TSA uses a range around the average price of a smartphone of plus or minus 35 percent based on a public comment received.

[82] Spadafora, Anthony, "When does an old smartphone become unsafe to use?" Tom's Guide (Nov. 17, 2022), available at https://www.tomsguide.com/us/old-phones-unsafe,news-24846.html.

replacement in Year 5. Replacement smartphones purchased in Years 5 and 6 will also need to be replaced in Years 9 and 10, respectively. Table 2-13 describes the schedule of mDL reader, or smartphone, procurement for relying parties, along with the total number of mDL readers that will be procured each year.

Table 2-13: Relying Party mDL Reader Procurement

Year	New mDL Readers a	Replacement Readers b = at-4 + at-8 + …	Total Number of Readers c = a + b
1	197.2	0	197.2
2	2,285.5	0	2,285.5
3	1,336.9	0	1,336.9
4	948.6	0	948.6
5	735.8	197.2	932.9
6	601.2	2,285.5	2,886.7
7	508.3	1,336.9	1,845.2
8	440.3	948.6	1,388.9
9	388.4	932.9	1,321.3
10	319.9	2,886.7	3,206.6
Total	**7,762.0**	**8,587.8**	**16,349.8**

Note: Totals may not add due to rounding.

2.7 mDL Training Costs

TSA will incur costs to train TSOs to verify mDLs for identification purposes at the security checkpoint. TSA expects other agencies will also incur training costs which are discussed in the unquantified costs discussion of this RIA in Section 3.4.

TSA anticipates this training will apply to existing and newly hired TSOs at 107 airports that currently have a CAT system but without mDL readers and newly hired TSOs as a result of attrition at 12 airports with current CAT-2 systems and mDL readers.[83] Specifically, the population of TSOs that receive mDL reader training will equal the sum of three populations: (1) all TSOs employed at airports receiving new mDL readers in the year those airports

[83] There are currently 119 airports with a CAT system. 12 of these airports have the CAT-2 system with mDL reader capability, resulting in 107 airports with a CAT system but without mDL reader capability. "Credential Authentication Technology," Transportation Security Administration, available at https://www.tsa.gov/travel/security-screening/credential-authentication-technology. "Biometrics Technology," Transportation Security Administration, available at https://www.tsa.gov/biometrics-technology.

receive the reader; (2) newly hired TSOs at airports with a new mDL reader; and (3) newly hired TSOs at airports currently with mDL readers.

TSA does not possess the deployment schedule regarding which airports will receive mDL readers and when over the period of analysis. However, TSA assumes that mDL readers will be deployed to only the 107 airports with a CAT system over the next ten years because these airports possess some of the infrastructure for mDL readers. TSA assumes deployment of mDL readers to the 107 airports and which airports receive new mDL readers is based on the proportion of mDL readers that will be deployed each year compared to the ten-year total (Section 2.6.1).

TSA makes the following assumptions about growth and attrition in order to calculate the TSO population that receives mDL reader training. First, TSA assumes a constant level of TSOs (no growth) over the period of analysis for the 119 airports with a CAT system which is in line with historical operations at these airports over the last 10 years. Second, TSA uses an overall TSO attrition rate of 15.49 percent, which is the simple average of annual attrition rates from calendar years 2012 to 2022.

TSA then estimates the population of TSOs that will undergo training at the 107 airports as those airports receive new mDL readers. This includes the TSOs employed at an airport in the year that it receives mDL readers as well as newly hired TSOs that offset attrition. TSA uses the number of airports that receive new mDL readers over the period of analysis to calculate the cumulative number of airports that receive new mDL readers. Given the uncertainty of when each airport will receive mDL readers, TSA uses the 2022 average number of TSOs at the 107 airports to calculate an average TSO population of 276.4 per airport.[84] To calculate the number of TSOs receiving training per year, TSA multiplies the number of airports receiving new mDL readers each year by the average number of TSOs across the 107 airports (276.4).

TSA calculates newly hired TSOs at airports with new mDL readers by multiplying the cumulative number of airports with new mDL readers by the average number of TSOs across

[84] 2022 average TSO population at the 107 airports = 29,574.7 TSOs ÷ 107 airports = 276.4. TSA calculated the TSO population at an airport as the number of TSOs during a pay period, averaged across all pay periods in 2022, where data is available. This includes both full-time and part-time TSOs.

the 107 airports (276.4) and the attrition rate of 15.49 percent. This is the number of TSOs that will be hired to offset the TSO losses from attrition to maintain a constant level of TSOs. The total TSO population subject to training at airports with new mDL readers is the sum of the TSOs employed at those airports in the year the airports receive mDL readers plus the newly hired TSOs at airports with new mDL readers. TSA assumes that mDL reader training is a onetime event.

Table 2-12 describes the training population at airports that will receive new mDL readers.

Table 2-14: Training Population at Airports Receiving New mDL Readers

Year	Airports with New mDL Readers a	Cumulative Airports with New mDL Readers b = $a_t + a_{t-1}$…	TSOs at Airports with New mDL Readers c = a × 276.4	Newly Hired TSOs (due to attrition) at Airports with New mDL Readers d = b × 276.4 × 15.49%	Total Training Population e = c + d
1	0	0.0	0	0	0
2	38.35	38.35	10,601	1,643	12,243
3	18.60	56.95	5,140	2,439	7,579
4	14.33	71.28	3,962	3,053	7,015
5	11.31	82.59	3,127	3,537	6,664
6	5.81	88.40	1,606	3,786	5,392
7	4.65	93.05	1,285	3,985	5,270
8	4.65	97.70	1,285	4,184	5,469
9	4.65	102.35	1,285	4,383	5,668
10	4.65	107.00	1,285	4,583	5,868
Total	**107**		**29,575**	**31,594**	**61,168**

Note: Totals may not add due to rounding.

Furthermore, new hires over the 10-year period of analysis at the 12 airports currently with mDL readers must undergo training. TSA uses the total number of TSOs at the 12 airports in 2022 (9,281.9) for the population of TSOs at these airports over the period of analysis.[85] To estimate the number of newly hired TSOs at airports currently with mDL readers, TSA

[85] The 2022 TSO population of 9,281.9 represents the sum of the TSOs at the 12 airports with a CAT-2 system, which include: Baltimore/Washington International Thurgood Marshall Airport; Dallas Fort Worth International Airport; Denver International Airport; Gulfport Biloxi International Airport; Harry Reid International Airport; Hartsfield-Jackson Atlanta International Airport; Jackson-Medgar Wiley Evers International Airport; Miami International Airport; Norman Y. Mineta San Jose International Airport; Phoenix Sky Harbor International Airport; Ronald Reagan Washington National Airport; and Salt Lake City International Airport.

multiplies the total number of TSOs at such airports (9,281.9) by the attrition rate of 15.49 percent.

To estimate the total TSO population that receives mDL reader training over the 10-year period of analysis, TSA combines the training populations at airports receiving new mDL readers (Table 2-14) and at airports currently with mDL readers. Table 2-15 describes the total TSO population that receives mDL reader training.

Table 2-15: TSO Training Population over 10-Year Period of Analysis

Year	TSOs at Airports with New mDL Readers a	Newly Hired TSOs (due to attrition) at Airports Currently with mDL Readers b = 9,281.9 × 15.49%	Total Population c = a + b
1	0	1,438	1,438
2	12,243	1,438	13,681
3	7,579	1,438	9,017
4	7,015	1,438	8,453
5	6,664	1,438	8,102
6	5,392	1,438	6,831
7	5,270	1,438	6,708
8	5,469	1,438	6,908
9	5,668	1,438	7,107
10	5,868	1,438	7,306
Total	**61,168**	**14,382**	**75,551**

Note: Totals may not add due to rounding.

TSA assumes TSOs undergo training once. In addition, TSA SMEs estimate TSOs will receive mDL reader training for an average of approximately 2 hours.

TSA will also incur costs to provide the mDL training to TSOs. This includes the time burden for training instructors to lead the training, which is also 2 hours. Training instructors include employees from several pay bands, such as GS-5, GS-13, and GS-14 employees. TSA estimates a weighted average hourly compensation for training instructors by multiplying the respective hourly compensation for each pay band (Section 2.3.2) and the estimated proportion of instructors within each pay band. TSA calculates a weighted average hourly compensation of $47.99 for training instructors. Table 2-16 describes the calculation for the weighted average hourly compensation for training instructors.

Table 2-16: Weighted Average Hourly Compensation for Training Instructors

Labor Category/Pay Band	Hourly Compensation a	Proportion of All Instructors b	Weighted Hourly Compensation Rate c = a × b
Security Training Instructors (GS-5)	$33.36	66.7%	$22.24
GS-13	$73.95	25.0%	$18.49
GS-14	$87.11	8.3%	$7.26
Total			**$47.99**

Note: Totals may not add due to rounding.

TSA then estimates the number of training classes instructors will provide over a 10-year period. TSA assumes a training class will hold between 15 and 50 TSOs, and an average class size of 25. TSA divides the total TSO training population in each year (Table 2-15) by the estimated average class size of 25 to estimate the number of training classes. Table 2-17 describes the number of training classes.

Table 2-17: mDL Training Classes over 10-Year Period of Analysis

Year	mDL Training Population a	Number of Training Classes b = a ÷ 25
1	1,438	57.5
2	13,681	547.3
3	9,016	360.7
4	8,452	338.1
5	8,102	324.1
6	6,830	273.2
7	6,708	268.3
8	6,907	276.3
9	7,106	284.3
10	7,305	292.2
Total	**75,550**	**3,022.0**

Note: Totals may not add due to rounding.

2.8 Familiarization Costs

TSA assumes that all States will spend time reviewing the final rule and determining whether to pursue a mDL waiver. TSA assumes familiarization costs occur only in the first year of the analysis. TSA assumes at least four state government employees will review the final rule: the equivalent of a solutions architect, an IT manager, the administrator of the State DMV, and a lawyer.

TSA then calculates a familiarization cost based on the time required to read all of the words in the Notice of Proposed Rulemaking and the regulatory impact analysis (approximately 45,800 words in total). TSA assumes that the State employees reviewing the rule read at a rate of 238 words per minute.[86] TSA estimates that it will take 3.2 hours for each employee to review and familiarize themselves with the requirements of the final rule.[87]

TSA multiplies the hourly compensation rates for the solution architect, IT manager, DMV administrator, and lawyer (Table 2-8) by the familiarization burden (3.2 hours). TSA sums the familiarization cost for each employee to estimate a familiarization unit cost of $1,130 per State. Table 2-18 describes the calculation of the familiarization cost per State.

Table 2-18: Familiarization Unit Cost

Labor Category	Hourly Compensation Rate a	Familiarization Time Burden (hrs) b	Familiarization Cost c = a × b
Solution Architect	$70.26	3.2	$224.83
IT Manager	$90.19		$288.61
Administrator of DMV	$113.31		$362.59
Lawyers	$79.24		$253.57
Total			**$1,129.60**

Note: Totals may not add due to rounding.

2.9 Standards Costs

TSA will incur a one-time cost of $375 to purchase three copies of the ISO 18013-5 standard.[88] TSA draws upon this standard to develop the waiver application criteria.

States that apply for a mDL waiver will also have to purchase one copy of the ISO 18013-5 standard in order to develop mDL solutions that comply with the waiver application criteria. States that apply for a mDL waiver will incur the one-time cost of $125.

[86] Brysbaert, Marc. "How many words do we read per minute? A review and meta-analysis of reading rate." Journal of Memory and Language, Aug. 2019, doi:10.1016/j.jml.2019.104047. How many words do we read per minute? A review and meta-analysis of reading rate - ScienceDirect

[87] 3.2 hours familiarization time = (20,900 words in mDL NPRM + 24,900 words in mDL RIA) ÷ 238 words per minute ÷ 60 minutes.

[88] The final rule incorporates by reference the ISO 18013-5 standard, and TSA must retain three copies of the standard. TSA total cost to purchase access to ISO 18013-5 standard = $125.00 cost to purchase standard x 3 copies = $375.

3 COST IMPACTS

This chapter describes the cost impacts of the final rule. TSA discusses the quantitative costs incurred by States and the Federal government as they are directly impacted by the development of a mDL waiver. TSA also discusses qualitative impacts including those attributed to indirectly impacted populations.

3.1 States

States affected by the final rule will incur costs to familiarize themselves with the final rule, complete a mDL waiver application if they choose to participate, and comply with waiver application requirements. States, as used in this RIA, includes the fifty States of the United States, the District of Columbia, and the five U.S. territories, and include the underlying issuing authority within the State responsible for driver's licenses.

3.1.1 mDL Familiarization Costs

TSA anticipates a one-time familiarization cost in the first year of the analysis for all States affected by the final rule to familiarize themselves with the rule's contents. TSA assumes at least four employees will review the final rule: the equivalent of a solutions architect, an IT manager, the administrator of the State DMV, and a lawyer. TSA estimates these State officials will each spend an average of 3.2 hours studying the requirements of the rule. As discussed in Section 2.8, TSA calculates a familiarization unit cost of $1,130 per State.

TSA estimates the total familiarization cost by multiplying the number of affected entities (56 States) and the familiarization unit cost. This results in a total State familiarization cost of $63,258.[89]

3.1.2 Standards Costs

TSA assumes the cost to States to purchase access to industry standards will be $125 (Section 2.9). TSA multiplies the number of mDL waiver applications per year by the cost to purchase access in order to calculate the total standards cost. Table 3-1 displays the 10-year cost to purchase access to industry standards.

[89] State familiarization cost = 56 States x $1,129.60 familiarization unit cost per State = $63,258.

Table 3-1: Standards Costs to States ($ Thousands)

Year	Number of Applications a	Standards Cost b = a × $125
1	15.0	$1.9
2	10.0	$1.3
3	5.0	$0.6
4	5.0	$0.6
5	5.0	$0.6
6	0	$0
7	0	$0
8	0	$0
9	0	$0
10	0	$0
Total	**40.0**	**$5.0**

Note: Totals may not add due to rounding.

3.1.3 mDL Waiver Application Costs

Under the final rule, States interested in applying for a mDL waiver will incur costs related to applying for the mDL waiver. Application for the mDL waiver is voluntary. As stated in Section 2.2.1, TSA assumes a total of 40 States will apply for a mDL waiver. TSA assumes fifteen States will apply in Year 1 of the analysis followed by ten States in Year 2, and five States in each of Years 3, 4, and 5.

TSA estimates a unit cost per initial mDL waiver application of $35,976 (Table 2-10). This includes the time to complete the application materials, collect supporting evidence, and hire an independent entity to perform an audit of the State's mDL systems. TSA multiplies the number of State applicants per year and the unit cost per initial mDL waiver application to calculate an initial mDL waiver application cost.

A mDL waiver application can receive one of three determinations: approval, insufficient, or denied. If an application is insufficient or denied, States have the opportunity to cure any deficiencies and resubmit an amended application. As discussed in Section 2.2.1, TSA estimates that 100 percent of the initial mDL waiver applications will initially be deemed insufficient and that 90 percent of applicants will resubmit their mDL waiver applications. TSA estimates a mDL waiver resubmission unit cost of $3,887 per State (Table 2-10). TSA

multiplies the number of applications, the percentage of States that will amend and resubmit an application, and the mDL waiver resubmission unit cost to calculate the mDL waiver resubmission cost. Table 3-2 displays the 10-year mDL waiver application cost to States for the initial mDL waiver application and resubmission.

Table 3-2: mDL Waiver Application Cost ($ Thousands)

Year	Number of Applications a	Initial Waiver Application Cost b = a × $35,976	Number of Resubmissions c = a × 100% × 90%	Resubmission Cost d = c × $3,887	Waiver Application Cost e = b + d
1	15.0	$539.6	13.5	$52.5	$592.1
2	10.0	$359.8	9.0	$35.0	$394.7
3	5.0	$179.9	4.5	$17.5	$197.4
4	5.0	$179.9	4.5	$17.5	$197.4
5	5.0	$179.9	4.5	$17.5	$197.4
6	0	$0	0	$0	$0
7	0	$0	0	$0	$0
8	0	$0	0	$0	$0
9	0	$0	0	$0	$0
10	0	$0	0	$0	$0
Total	**40.0**	**$1,439.0**	**36.0**	**$139.9**	**$1,578.9**

Note: Totals may not add due to rounding.

Under the final rule, States will be required to renew their mDL waiver every three years. TSA multiplies the number of State reapplications per year (Table 2-1) and the unit cost per mDL waiver reapplication of $30,657 (Table 2-10) to calculate the mDL waiver reapplication cost. Table 3-3 displays the 10-year cost for mDL waiver reapplications.

Table 3-3: **mDL Waiver Reapplication Cost ($ Thousands)**

Year	Number of mDL Waiver Reapplications a	mDL Waiver Reapplication Cost b = a × $30,657
1	0	$0
2	0	$0
3	0	$0
4	13.5	$413.9
5	9.0	$275.9
6	4.5	$138.0
7	18.0	$551.8
8	13.5	$413.9
9	4.5	$138.0
10	18.0	$551.8
Total	**81.0**	**$2,483.2**

Note: Totals may not add due to rounding.

3.1.4 Compliance with Waiver Application Criteria Costs

As discussed in Section 2.5, TSA assumes in the absence of the rule, States implementing mDLs will comply with the AAMVA Guidelines. The AAMVA Guidelines influence much of the waiver application criteria. Thus, TSA assumes the application criteria that overlap with the AAMVA Guidelines will otherwise be incurred. Requirements within the application criteria that are not in the AAMVA Guidelines are captured as costs of the final rule. States incur costs to comply with requirements related to escalated review and infrastructure security.

TSA estimates the costs to comply with the escalated review requirements by first calculating the cumulative number of States that receive a mDL waiver. TSA multiplies the cumulative number of such States by 117.5, the number of escalated calls in the average State that applies for a mDL waiver (Table 2-12), to obtain the total number of escalated calls. TSA then multiplies the total number escalated calls by the average call duration of 0.15 hours (Section 2.5.1) and the customer service representative wage of $30.89 (Table 2-8) to determine the total cost of escalated review. Table 3-4 displays the 10-year cost for escalated review.

Table 3-4: Escalated Review Cost to States ($ Thousands)

Year	Cumulative Total States with mDL Waivers a	Escalated Review Calls b = a × 117.5	Escalated Review Cost c = b × 0.14667 Hour × $30.89/Hour
1	13.5	1,585.6	$7.2
2	22.5	2,642.7	$12.0
3	27.0	3,171.2	$14.4
4	31.5	3,699.8	$16.8
5	36.0	4,228.3	$19.2
6	36.0	4,228.3	$19.2
7	36.0	4,228.3	$19.2
8	36.0	4,228.3	$19.2
9	36.0	4,228.3	$19.2
10	36.0	4,228.3	$19.2
Total		**36,469.4**	**$165.2**

Note: Totals may not add due to rounding.

TSA assumes 100 percent of those experiencing issues with provisioning the mDL will follow through with the escalated review process (Section 2.5.1), resulting in an escalated review cost of $165,226 over the 10-year period. However, TSA acknowledges the uncertainty surrounding this assumption and provides estimated impacts assuming different proportions. If 50 percent of those experiencing provisioning issues complete the escalated review, a State with a mDL waiver would handle an average of 58.7 calls a year. This would result in total escalated review costs of $82,613 over the 10-year period.[90] If 75 percent of those experiencing provisioning issues complete the escalated review, a State with a mDL waiver would handle an average of 88.1 calls a year. This would result in total escalated review costs of $123,919 over the 10-year period.[91]

[90] A proportion of 50 percent completing escalated review would result in 587.3 total calls over a 10-year period, or an average of 58.7 per year for a State. Accounting for all States TSA assumes will have a mDL waiver, this would result in 18,235 total calls over the 10-year period. Escalated review costs, if 50 percent of those with provisioning issues enter the escalated review process, equals: 18,235 total calls × 0.14667 average escalated review call in hours × $30.89 customer service representative wage = $82,613.

[91] A proportion of 75 percent completing escalated review would result in 880.9 total calls over a 10-year period, or an average of 88.1 per year for a State. Accounting for all States TSA assumes will have a mDL waiver, this would result in 27,352 total calls over a 10-year period. Escalated review costs if 75 percent of those with provisioning

TSA estimates the costs to comply with the infrastructure security costs as the sum of startup costs and recurring costs. States that are granted a mDL waiver incur one-time startup costs in the year it first receives the mDL waiver. TSA multiplies the number of States that receive a mDL in a year by the startup cost of $590,410 (Section 2.5.2). TSA calculates annual recurring costs by multiplying the cumulative total of States with mDL waivers by the recurring cost of $2.54 million (Section 2.5.2). Table 3-5 displays the 10-year cost for compliance with the infrastructure security requirements.

Table 3-5: Infrastructure Security Requirements Cost ($ Thousands)

Year	Number of States Receiving mDL Waivers	Cumulative Total States with mDL Waivers	Startup Cost	Recurring Cost	Infrastructure Security Cost
	a	b	c = a × $590,410	d = b × $2,536,400	e = c + d
1	13.5	13.5	$7,971	$34,241	$42,212
2	9.0	22.5	$5,314	$57,069	$62,383
3	4.5	27.0	$2,657	$68,483	$71,140
4	4.5	31.5	$2,657	$79,897	$82,553
5	4.5	36.0	$2,657	$91,310	$93,967
6	0	36.0	$0	$91,310	$91,310
7	0	36.0	$0	$91,310	$91,310
8	0	36.0	$0	$91,310	$91,310
9	0	36.0	$0	$91,310	$91,310
10	0	36.0	$0	$91,310	$91,310
Total	**36.0**		**$21,255**	**$787,552**	**$808,807**

Note: Totals may not add due to rounding.

3.1.5 Unquantified State Costs

States who are spurred on by the final rule to develop a mDL solution may incur costs to monitor and study mDL technology as it evolves, as it relates to safety, security and practicability of mDLs. This may include reviewing new standards or completing training. TSA anticipates that for many States, this is likely an existing and ongoing effort that will not change as a result of this final rule.

issues enter the escalated review process equals: 27,352 total calls × 0.14667 average escalated review call in hours × $30.89 customer service representative wage = $123,919.

The final rule allows TSA to suspend the validity of a State's mDL waiver if Federal acceptance of a State's mDL presents an imminent or serious threat to security, privacy, or data integrity, or if the State fails to comply with the terms and conditions of the mDL waiver. The final rule also allows TSA to terminate the validity of a State's mDL waiver if the State falls out of compliance with REAL ID requirements, commits an egregious violation that the State is unwilling to cure, or intentionally provided false information in support of its mDL waiver application. TSA will provide States written notice via e-mail regarding the circumstances that might lead to a suspension or termination and allow States the opportunity to cure any deficiencies to resume the validity of the waiver and to present additional information prior to termination of the waiver.[92]

TSA anticipates States will incur costs to fix the underlying issues that could lead to the suspension or termination of a mDL waiver and respond to TSA. States may also incur costs to re-provision the mDL onto the mDL holder's device in the event of a security, privacy, or data integrity issue.[93] However, given the high level of uncertainty, TSA does not possess sufficient information to estimate the frequency of mDL waiver suspensions or terminations and thus quantify such costs.

The final rule requires States to report imminent or serious threats to security, privacy, or data integrity that acceptance of a State's mDL may cause. States must also report any material changes made to a State's mDL issuance processes or infrastructure that differ from what was reported in the mDL waiver application. States may also contact TSA to inquire whether a change warrants reporting. States will incur a time burden to comply with this reporting requirement. However, TSA does not possess sufficient information to estimate the frequency related to reporting and thus quantify costs. TSA assumes there will be no reporting within the three-year Paperwork Reduction Act cycle.

States must notify TSA regarding any conflicts of interest with the entity performing the audit and any steps taken to remedy such conflicts of interest. States may incur a cost if they divest an asset or assets in order to remove the conflict of interest. TSA does not quantify

[92] TSA will notify States of a determination of suspension or termination via e-mail. Federal agencies and the public will receive notice via an update on TSA's REAL ID website.

[93] TSA anticipates that because States will be responsible for fixing any issues and re-provisioning mDL in the event of a breach, there will be a minimal or zero burden to mDL holders for re-provisioning the mDL.

such costs in this analysis as there is a high level of uncertainty regarding the frequency of conflicts of interest between States and the entity performing the audit, whether States will divest assets to remedy the conflict of interest, and the type and market value of any divested assets.

The final rule allows States whose waiver applications are denied to file a request for reconsideration. TSA assumes no States will file such a request because States will have the ability to amend and resubmit waiver applications that are not initially approved. TSA also intends to continue to work with States to meet the waiver application criteria. However, any State that files for reconsideration will incur costs for any time its employees spend participating in the process.

TSA recognizes States may transfer mDL-related costs to the general public. However, TSA lacks sufficient data to quantify these amounts. TSA did not receive public comments or data regarding how States may pass on these costs or implement these measures. Consequently, it is unclear how States would transfer costs associated with implementation of mDL.

3.1.6 Total Cost to States

The total cost to States from the final rule is the sum of the familiarization costs (Section 3.1.1), standards costs (Table 3-1), mDL waiver application costs (Table 3-2), mDL waiver reapplication costs (Table 3-3), escalated review costs (Table 3-4), and infrastructure security costs (Table 3-5). Table 3-6 summarizes the total costs of the final rule to States.

Table 3-6: Total Cost of the Final Rule to States ($ Thousands)

Year	Familiar-ization Cost	Stand-ards Cost	Waiver Applic-ation Cost	Reapplic-ation Cost	Escalated Review Cost	Infras-tructure Security Cost	Total Cost to States		
							g = a + b + c + d + e + f		
	a	b	c	d	e	f	Un-discounted	Discounted at 3%	Discounted at 7%
1	$63.3	$1.9	$592.1	$0	$7.2	$42,212	$42,876	$41,628	$40,071
2	$0	$1.3	$394.7	$0	$12.0	$62,383	$62,791	$59,186	$54,844
3	$0	$0.6	$197.4	$0	$14.4	$71,140	$71,352	$65,297	$58,244
4	$0	$0.6	$197.4	$413.9	$16.8	$82,553	$83,182	$73,906	$63,459
5	$0	$0.6	$197.4	$275.9	$19.2	$93,967	$94,460	$81,482	$67,349
6	$0	$0	$0	$138.0	$19.2	$91,310	$91,467	$76,603	$60,949
7	$0	$0	$0	$551.8	$19.2	$91,310	$91,881	$74,708	$57,219
8	$0	$0	$0	$413.9	$19.2	$91,310	$91,743	$72,423	$53,395
9	$0	$0	$0	$138.0	$19.2	$91,310	$91,467	$70,102	$49,752
10	$0	$0	$0	$551.8	$19.2	$91,310	$91,881	$68,368	$46,708
Total	**$63.3**	**$5.0**	**$1,578.9**	**$2,483.2**	**$165.2**	**$808,807**	**$813,102**	**$683,704**	**$551,991**

Note: Totals may not add due to rounding.

3.2 TSA

TSA will incur costs associated with the mDL waiver process. Specifically, TSA costs include purchasing access to industry standards to develop the waiver application criteria, reviewing State mDL waiver applications, purchasing and operating mDL readers, and training TSOs.

3.2.1 Standards Costs

TSA anticipates TSA will incur a one-time cost to purchase access to industry standards, which will influence the development of the waiver application criteria. TSA assumes TSA incurs this cost of $375 (see Section 2.9) in Year 1 of the analysis.

3.2.2 Waiver Review Costs

TSA incurs costs to review and make determinations on mDL waiver applications. As discussed in Section 2.4.4, TSA estimates an initial mDL waiver application review unit cost of $2,958 per application. TSA calculates the initial mDL waiver application review cost by multiplying the number of mDL waiver applications and the initial mDL waiver application review unit cost.

TSA will incur additional review costs when States, whose applications are insufficient, resubmit an amended application. As discussed in Section 2.4.4, TSA estimates a mDL waiver resubmission review unit cost of $2,219 per resubmission. TSA multiplies the number of applications, the percentage of insufficient waiver applications, and the percentage of applicants that will resubmit insufficient applications to obtain the number of resubmissions. TSA then multiplies the number of resubmissions and the mDL waiver resubmission review unit cost to calculate the TSA mDL waiver resubmission review cost.

Table 3-7 displays the 10-year mDL waiver application review cost to TSA, which includes the review of the initial mDL waiver application and associated resubmissions.

Table 3-7: mDL Waiver Application Review Cost ($ Thousands)

Year	Number of Applications a	Application Review Cost b = a × $2,958	Number of Resubmissions c = a × 100% × 90%	Resubmissions Review Cost d = c × $2,219	Total Application Review Cost e = b + d
1	15.0	$44.4	13.5	$29.9	$74.3
2	10.0	$29.6	9.0	$20.0	$49.5
3	5.0	$14.8	4.5	$10.0	$24.8
4	5.0	$14.8	4.5	$10.0	$24.8
5	5.0	$14.8	4.5	$10.0	$24.8
6	0	$0.0	0	$0	$0
7	0	$0.0	0	$0	$0
8	0	$0.0	0	$0	$0
9	0	$0.0	0	$0	$0
10	0	$0.0	0	$0	$0
Total	**40.0**	**$118.3**	**36.0**	**$79.9**	**$198.2**

Note: Totals may not add due to rounding.

TSA will incur costs during the review of mDL waiver reapplications. TSA multiplies the number of State reapplications per year and mDL waiver reapplication review unit cost of $2,958 (Section 2.4.4) to develop the mDL waiver reapplication review cost. Table 3-8 displays the 10-year cost for the mDL waiver reapplication review.

Table 3-8: mDL Waiver Reapplication Review Cost ($ Thousands)

Year	Number of mDL Waiver Reapplications a	mDL Waiver Reapplication Review Cost b = a × $2,958
1	0	$0
2	0	$0
3	0	$0
4	13.5	$39.9
5	9.0	$26.6
6	4.5	$13.3
7	18.0	$53.2
8	13.5	$39.9
9	4.5	$13.3
10	18.0	$53.2
Total	**81.0**	**$239.6**

Note: Totals may not add due to rounding.

3.2.3 mDL Reader Costs

TSA incurs costs when procuring mDL readers for use at airport checkpoints, as well as costs to operate and maintain the mDL readers. TSA uses mDL reader cost data and deployment data from TSA program offices to develop assumptions on the number of mDL readers over the 10-year period of analysis and the total cost to procure and operate mDL readers. However, TSA provides high level cost estimates and does not include specific details of this information in the analysis due to the sensitive nature of the data. Table 3-9 describes the 10-year cost of mDL readers to TSA.

Table 3-9: mDL Reader Cost for TSA ($ Thousands)

Year	mDL Reader Cost
1	$1,418.8
2	$699.8
3	$547.9
4	$440.6
5	$240.6
6	$199.4
7	$200.9
8	$202.3
9	$203.8
10	$205.2
Total	**$4,359.4**

Note: Totals may not add due to rounding.

3.2.4 mDL Training Costs

TSA will incur costs to train Transportation Security Officers (TSOs) on how to verify mDLs for identification purposes at airport security checkpoints. TSA estimates the population of TSOs receiving training each year, which includes the training population at airports receiving new mDL readers and the training population at airports currently with mDL readers (Table 2-15). TSA multiplies the population by the TSO hourly compensation rate of $33.36 (Section 2.3.2) and an estimated training time of 2 hours (Section 2.7) to determine the TSO training cost.

TSA will also incur costs related to the training instructor time burden to provide mDL training. TSA estimates the number of training classes instructors will provide to the TSO training population (Table 2-17). TSA multiplies the number of training classes by the training instructor hourly compensation rate of $47.99 (Table 2-16) and the training time of 2 hours (Section 2.7) to determine the training instructor cost. TSA sums the TSO training cost and the training instructor cost to calculate the total mDL training costs. Table 3-10 presents the 10-year mDL training costs.

Table 3-10: mDL Training Costs ($ Thousands)

Year	TSOs Receiving Training a	TSO Training Cost b = a × $33.36/ Hour × 2.00 Hours	mDL Training Classes c	Training Instructor Cost d = c × $47.99/ Hour × 2.00 Hours	Total Training Cost e = b + d
1	1,438.2	$96.0	57.5	$5.5	$101.5
2	13,681.4	$912.8	547.3	$52.5	$965.4
3	9,016.9	$601.6	360.7	$34.6	$636.2
4	8,452.9	$564.0	338.1	$32.5	$596.4
5	8,102.2	$540.6	324.1	$31.1	$571.7
6	6,830.6	$455.7	273.2	$26.2	$482.0
7	6,708.4	$447.6	268.3	$25.8	$473.3
8	6,907.5	$460.9	276.3	$26.5	$487.4
9	7,106.6	$474.2	284.3	$27.3	$501.4
10	7,305.7	$487.4	292.2	$28.0	$515.5
Total	**75,550.6**	**$5,040.7**	**3,022.0**	**$290.1**	**$5,330.8**

Note: Totals may not add due to rounding.

3.2.5 Unquantified TSA Costs

TSA will incur costs in the event TSA suspends or terminates a State's mDL waiver (see Section 3.1.5). TSA will incur a time burden to investigate the circumstances surrounding the State's mDL that may lead to a suspension or termination and provide a notice to the State of TSA's intention to suspend or terminate the mDL waiver. TSA will also incur a time burden to provide States, relying parties, and the public notice of the suspension or termination of a State's mDL waiver. TSA will provide States written notice of the intention to suspend or terminate and the written notice of suspension or termination via e-mail. TSA will provide relying parties and the public notice via an update on TSA's REAL ID website.

Furthermore, once States have resolved the issue that gave rise to the suspension or termination of the mDL waiver, TSA will incur a time burden to investigate whether the State resolved the underlying issue. However, given the high level of uncertainty associated with the frequency of such events and level of investigation and review necessary, TSA does not possess sufficient information to quantify such costs at this time.

TSA anticipates that TSA will develop an IT solution that maintains an up-to-date list of States with a valid mDL waiver. TSA mDL readers will be able to access the list to verify

that a mDL presented at the security checkpoint is issued by a State with a valid mDL waiver. TSA will incur costs to develop the IT solution.

TSA may incur other costs related to the process changes to adapt to mDL systems. This may include, but is not limited to, updates to standard operating procedures and developing materials to inform the traveling public of procedures for verifying mDLs.

As part of the final rule, TSA will incur costs to provide mDL training to TSOs (section 2.7). TSA will likely incur travel costs related to mDL training, including costs for training instructors to travel to airports to provide the training and for TSOs to travel for training. These costs are highly uncertain because TSA does not possess complete data on mDL reader deployment, including which airports would receive mDL readers and when.

The final rule allows States whose mDL waiver applications are denied the ability to file a request for reconsideration. TSA assumes no States will file such a request because States have the ability to amend and resubmit waiver applications that are not initially approved. If States elect to file a request for reconsideration, TSA will incur costs related to the time burden for reviewers to analyze materials States submit and to adjudicate requests.

3.2.6 Total Cost to TSA

The total cost to TSA from the final rule is equal to the total costs from purchasing access to industry standards (Section 3.2.1), mDL waiver application reviews (Table 3-7), mDL waiver reapplication reviews (Table 3-8), procuring and operating mDL readers (Table 3-9), and training TSOs (Table 3-10). Table 3-11 summarizes the total costs of the final rule to TSA.

Table 3-11: Total Cost of the Final Rule to TSA ($ Thousands)

Year	Standards Cost	Application Review Cost	Reapplication Review Cost	mDL Reader Cost	mDL Training Cost	Total Cost to TSA		
						f = a + b + c + d + e		
	a	b	c	d	e	Undiscounted	Discounted at 3%	Discounted at 7%
1	$0.4	$74.3	$0	$1,418.8	$101.5	$1,595.0	$1,548.5	$1,490.6
2	$0	$49.5	$0	$699.8	$965.4	$1,714.7	$1,616.3	$1,497.7
3	$0	$24.8	$0	$547.9	$636.2	$1,208.9	$1,106.4	$986.9
4	$0	$24.8	$39.9	$440.6	$596.4	$1,101.8	$978.9	$840.5
5	$0	$24.8	$26.6	$240.6	$571.7	$863.7	$745.0	$615.8
6	$0	$0.0	$13.3	$199.4	$482.0	$694.7	$581.8	$462.9
7	$0	$0.0	$53.2	$200.9	$473.3	$727.5	$591.5	$453.0
8	$0	$0.0	$39.9	$202.3	$487.4	$729.7	$576.0	$424.7
9	$0	$0.0	$13.3	$203.8	$501.4	$718.5	$550.7	$390.8
10	$0	$0.0	$53.2	$205.2	$515.5	$773.9	$575.9	$393.4
Total	**$0.4**	**$198.2**	**$239.6**	**$4,359.4**	**$5,330.8**	**$10,128.4**	**$8,870.9**	**$7,556.4**

Note: Totals may not add due to rounding.

3.3 mDL Users

Individuals who use mDLs (mDL users) may experience cost savings associated with the use of their mDL. They may also incur costs associated with additional application requirements to obtain an mDL. However, many of these impacts will likely be associated with mDL use absent the rule as well (though likely to a lesser degree due to lower adoption rates). TSA does not possess sufficient information at this time to estimate the incremental nature of such impacts. In addition, TSA recognizes there may be some distribution impacts that potentially limit benefits due to external factors related to socioeconomic, generational, or other variables. Specifically, while smart phone usage is widespread,[94] not everyone in the U.S. has a smart phone and the portion without one will not be able to reap the associated benefits.[95]

[94] Roughly 90 percent of American adults possess a smartphone. Pew Research Center. Demographics of Mobile Device Ownership and Adoption in the United States. January 31, 2024. Available at https://www.pewresearch.org/internet/fact-sheet/mobile/?tabId=5b319c90-7363-4881-8e6f-f98925683a2f, accessed on April 19, 2024.

[95] The potential benefits of mDLs can be realized using nearly any smartphone available today. The rule does not dictate which types of phones can use mDL. The only technical requirements for such devices specified in the final rule are smartphones that employ Bluetooth Low Energy and secure hardware capability to protect the device key associated with the mDL. TSA subject matter experts are not aware of any specific devices sold in the U.S. that lack these capabilities. Further, TSA anticipates readers will work across multiple service providers as well (e.g. individuals would not be required to have an Apple-based product for the reader to recognize their REAL ID).

3.4 Relying Parties

Relying parties represent those Federal agencies, excluding TSA, that choose to accept mDLs for official purposes. If they choose to accept mDLs for official Federal purposes, these entities will incur costs to procure mDL readers. TSA assumes relying parties will use a free application on a smartphone to verify mDLs. Relying parties must purchase the smartphone, along with replacement smartphones every four years (Section 2.6.2). TSA estimates the cost of mDL readers by multiplying the number of mDL readers that will be procured each year (Table 2-13) by the average cost of a smartphone, $402 (Section 2.6.2). Table 3-12 displays the 10-year mDL reader cost to relying parties.

Table 3-12: mDL Reader Cost for Relying Parties ($ Thousands)

Year	Number of mDL Readers a	mDL Reader Cost b = a × $402
1	197.2	$79.3
2	2,285.5	$918.8
3	1,336.9	$537.4
4	948.6	$381.3
5	932.9	$375.0
6	2,886.7	$1,160.4
7	1,845.2	$741.8
8	1,388.9	$558.3
9	1,321.3	$531.2
10	3,206.6	$1,289.1
Total	**16,349.8**	**$6,572.6**

Note: Totals may not add due to rounding.

Relying parties may incur costs in the event of an issue with the security or privacy of the mDL reader and related data. The relying party will be responsible for resolving any such issue that may arise with the mDL reader. TSA does not possess sufficient information to estimate the frequency of such events or the costs to resolve such an issue.

The final rule requires relying parties to report imminent or serious threats to security, privacy, or data integrity that acceptance of a State's mDL may cause. Relying parties will incur a time burden to comply with this reporting requirement. However, TSA does not possess sufficient information to estimate the frequency related to reporting and thus quantify costs.

Relying parties may also incur unquantified costs similar to TSA unquantified costs discussed in Section 3.2.5. Relying parties may incur costs related to verifying the list of States with a valid mDL waiver and any updates to that list as part of the identity verification process. TSA assumes relying parties will rely on their own policies and processes to verify the list. TSA assumes there will be a technological solution to push automatic updates to the mDL reader following the effective date of the final rule. Prior to that, TSA assumes a manual process will be utilized. Absent a technological solution, TSA assumes relying parties will use manual processes, such as a cheat sheet of the list of States with valid mDL waivers.

Relying parties will incur costs to train security personnel to verify mDLs for identification purposes.

Relying parties may also incur costs to inform the public on the relying party's identification policies, such as if the relying party chooses to accept or no longer accept mDLs, or if a State's mDL cannot be accepted based on a suspension or termination of a mDL waiver. TSA assumes relying parties will provide notice to the public by updating their identification policies through existing practices.

3.5 Total Cost of the Final Rule

TSA estimates the total cost of the final rule by summing the total costs to States (Table 3-6), TSA (Table 3-11), and relying parties (Table 3-12). Under the final rule, State governments will incur a total cost of $813.1 million undiscounted over 10 years, TSA $10.1 million undiscounted over 10 years, and relying parties $6.57 million undiscounted over 10 years. The total cost to States comprises roughly 98 percent of the total cost of the final rule.

The total cost of the final rule aggregates to $829.8 million undiscounted over 10 years, $698.1 million discounted at 3 percent, and $563.9 million discounted at 7 percent. Table 3-13 summarizes the total cost of the final rule by entity.

Table 3-13: Total Cost of the Final Rule by Entity ($ Thousands)

Year	States Cost	TSA Cost	Relying Party Cost	Total Final Rule Cost		
				d = a + b + c		
	a	b	c	**Undiscounted**	**Discounted at 3%**	**Discounted at 7%**
1	$42,876	$1,595	$79	$44,551	$43,253	$41,636
2	$62,791	$1,715	$919	$65,424	$61,669	$57,144
3	$71,352	$1,209	$537	$73,098	$66,895	$59,670
4	$83,182	$1,102	$381	$84,665	$75,224	$64,591
5	$94,460	$864	$375	$95,699	$82,551	$68,232
6	$91,467	$695	$1,160	$93,323	$78,156	$62,185
7	$91,881	$727	$742	$93,351	$75,903	$58,134
8	$91,743	$730	$558	$93,031	$73,440	$54,145
9	$91,467	$719	$531	$92,717	$71,060	$50,432
10	$91,881	$774	$1,289	$93,944	$69,903	$47,757
Total	**$813,102**	**$10,128**	**$6,573**	**$829,803**	**$698,054**	**$563,925**
Annualized					**$81,833**	**$80,290**

Note: Totals may not add due to rounding.

4 BENEFITS

This final rule will provide an interim mDL standard for those States choosing to issue mDLs that can be accepted for official Federal purposes. The waiver application criteria established by this rule may help guide States in their development of mDL technologies and provide a shared standard that could potentially improve efficiency while also promoting higher security, privacy, and interoperability safeguards. This chapter describes benefits attributable to the final rule.

Before TSA grants States a mDL waiver, States must establish that their mDLs meet security and privacy protections to safeguard an mDL holder's identity data, as well as interoperability requirements to ensure secure transactions with Federal agencies. The TSA waiver application criteria provide a common standard for States to adhere while additional industry standards are being developed. TSA believes this will foster a higher level of security and privacy protections; because absent the final rule, individual States may choose lesser or insufficient security and privacy mechanisms for mDL technologies that may not be suitable for Federal uses. States are developing mDLs to be accessible on smartphones and other mobile devices. The mobility and complexity of smartphones allows for technological advancements, however, these features also expose mDLs to greater security threats.[96] The application criteria facilitate the development of mDL systems that meet an appropriate level of security and privacy protections and interoperability and may reduce malicious efforts against them.

mDLs themselves may also provide additional security benefits. Specifically, mDLs may offer a more secure verification of an individual's identity and authentication of an individual's credential compared to usage of physical cards. In general, mDLs use a cryptographic protocol that ensures the mDL was obtained through a trusted authority, such

[96] Many features of mobile devices make them vulnerable to cyber-attack, including a wide variety of sensors like GPS, cameras, and microphone arrays. Smartphones also contain multiple radio interfaces, network connectivity capabilities, and tend to always be in a powered-on state, leaving them vulnerable to exploitation by malicious actors. Study on Mobile Device Security. April 2017. https://www.dhs.gov/sites/default/files/publications/DHS%20Study%20on%20Mobile%20Device%20Security%20-%20April%202017-FINAL.pdf, pp. 10.

as the Department of Motor Vehicles.[97] This same protocol may prevent the alteration of mDLs and reduce the threat of counterfeit credentials. Furthermore, mDLs offer increased protection of personal identifiers by preventing over-collection of information. mDLs may possess the ability to share only those attributes necessary to validate the user identity with the relying party.[98] When using a physical card, the user has no ability to limit the information that is shared (e.g., address), regardless of the amount of information required for verification. Therefore, fostering increased usage of mDLs, through the final rule, will result in a corresponding increase in security benefits.

The final rule may also foster increased adoption of mDLs. As of April 2024, 10 States have a mDL application available for their residents to obtain a digital version of the physical driver's license on an electronic device.[99] Nearly 3.7 million residents in the six States with publicly available data have a mDL which represent 18.9 percent of licensed drivers.[100] This number of residents obtaining a mDL will rise as more States offer it as an option which DHS estimates to be a total of 40 States (the 10 currently with a mDL available to residents plus 30 additional States) over the next 10 years.

The waiver application criteria can help guide State development and investment in mDLs. The waiver application criteria will foster a level of standardization that could potentially reduce complexity by limiting individual State nuances while also ensuring interoperability across States and with the Federal government. This increased interoperability reduces implementation costs by limiting the need for different protocols or mechanisms to accept mDLs from individual States. AAMVA presents a similar assertion in its Mobile Driver's

[97] "Secure Technology Alliance's Mobile Driver's License Workshop Showcases mDLs Role in the Future of Identification," Secure Technology Alliance (Dec. 14, 2021), available at https://www.securetechalliance.org/secure-technology-alliances-mobile-drivers-license-workshop-showcases-mdls-role-in-the-future-of-identification/

[98] Mobile ID can bring both convenience and citizen privacy. July 15, 2021. https://www.biometricupdate.com/202107/mobile-id-can-bring-both-convenience-and-citizen-privacy

[99] The ten States that have made a mDL application available to their residents are Arizona, Colorado, Delaware, Georgia, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, and Utah.

[100] The six States with mDL user data are Arizona, Colorado, Delaware, Louisiana, Mississippi, and Utah. 3,691,300 mDLs ÷ 19,507,342 licensed drivers = 18.9 percent.

License Functional Needs White Paper from 2019 where it proposes for a common standard that will reduce challenges and mDL implementation costs.[101]

In addition, identification of waiver application criteria that can be used across States will result in efficiency gains through multiple States pursuing similar objectives, goals, and solutions. Establishing waiver application criteria early in the technology development process has the potential to align development activities across disparate efforts. Early guidance might also reduce re-work or modifications required in future regulations thus saving time and resources redesigning systems and functionality to adhere to subsequent Federal guidelines. As States invest more effort in the development of mDL systems, their effective cost to comply with new federal regulations increases due to required modifications.[102] The waiver application criteria set a consistent foundation across States with criteria that are likely to be included in a more prescriptive rule, which will likely reduce the need to alter technologies that otherwise may have been adopted.

Furthermore, providing waiver application criteria for States to follow may potentially encourage investment. The final rule will reduce uncertainty surrounding mDL design because the final rule establishes minimum technical requirements that all State mDL systems must meet for official purposes and potentially wider acceptance outside of official purposes. This could encourage sharing of best practices to develop mDL technology capabilities across States and the ability to focus on and address common concerns or issues. Such collaboration, or unity of effort, can help spread research and development risk and reduce inefficiencies that may arise from early adopted technology and States working independently.[103] Greater clarity over mDL regulations, with the final rule part of an incremental multi-phased rulemaking approach, may spur new entrants, including States and technology providers, into the mDL ecosystem.

---

[101] Mobile Driver's License Functional Needs White Paper, Version 0.9. January 2019. Accessed on 2 February 2022 from: https://www.aamva.org/getmedia/0d4c1159-9b06-4f49-8cc5-532efb986d8d/Mobile-Drivers-License-Functional-Needs-Whitepaper.pdf, pp. 12-13.

[102] Kalkuhl, M., Edenhofer, O., Lessmann, K. (2011). Learning or Lock-in: Optimal technology policies to support mitigation. *Center for economic studies and Ifo Institute (CESifo),* Munich. Working Paper No. 3422, available at https://www.econstor.eu/bitstream/10419/46393/1/660703491.pdf.

[103] When research and development costs are very high and end products are not easily differentiable through branding or value-added features early entrants can gain an incumbent advantage compared to later entrants (lock-in effect) with flawed early technologies lasting in the market and causing economic inefficiencies. Kalkuhl, M., Edenhofer, O., Lessmann, K.

In addition, the final rule will allow Federal agencies to continue to accept mDLs for official purposes when REAL ID enforcement begins. This will avoid the sudden halting of mDL acceptance when REAL ID enforcement begins which will reverse trends in providing for a more customer-friendly screening experience. Furthermore, the experience and insight learned through the waiver process can inform future rulemaking ultimately resulting in a more effective rule.

Finally, advancement of mDL technologies could have other potential indirect benefits. Acceptance of mDLs for official Federal purposes could spur the development of mDLs with consistent security and privacy protections and interoperability with uses beyond the REAL ID official purposes and possibly laying the groundwork for a higher level of security for identity verification. States' uses of mDLs currently vary in scope and capabilities. For example, Florida's Smart ID program, states that it will be used to "present proof of identity or age" via smartphone applications.[104] Iowa is designing its mDL system to enhance physical card use, as well as allow individuals to update information, register to vote, and file tax returns.[105] Colorado has developed a holistic app with the help of a third party which provides COVID-19 information, access to hunting and fishing licenses, park passes, and allows the user to register for social benefits from the state.[106] Private industry is also identifying new methods and applications for which mDL authentication could be used.[107] Such development may also result in new or different productive economic efforts or products beyond the current limited use case of mDL. The Secure Technology Alliance, a technology industry group looking at the benefits of mDL, identified several industries that will benefit from adoption: retail, travel and entertainment, banking, and access control (enterprise) and note that improved speed is a potential upside for adoption.[30]

[104] The Florida Senate. (2021). Bill Analysis and Fiscal Impact Statement: CS/SB 1324. Accessed on 1/24/22 from: https://www.flsenate.gov/Session/Bill/2021/1324/Analyses/2021s01324.rc.PDF
[105] Harrison, L. Mobile Driver's Licenses to Debut in Iowa This Year. Accessed 1/24/22 from: https://www.govtech.com/transportation/mobile-drivers-licenses-to-debut-in-iowa-this-year.html.
[106] Mobile Driver's Licenses Could Pave Way for More Digital IDs. (2021). Accessed 1/24/22 from: https://www.governing.com/next/mobile-drivers-licenses-could-pave-way-for-more-digital-ids.
[107] Secure Technology Alliance. (2021). mDL Connection uses. Accessed 1/24/22 from: https://www.mdlconnection.com/mdl-uses/

5 ANALYSIS OF ALTERNATIVES

Under the Office of Management and Budget (OMB) Circular A-4, the Transportation Security Administration (TSA) has to consider regulatory alternatives to the requirements in the final rule. Throughout the process of developing the final rule, TSA engaged in discussions regarding the elements that became the basis for the final rule's requirements. TSA analyzed alternatives to the final rule ("preferred alternative") in the course of these discussions. In this chapter, TSA describes and analyzes four regulatory alternatives to the final rule.

5.1 Alternative 1: No Change

Alternative 1 represents the status quo or no change relative to the creation of a mDL waiver process. This is akin to the baseline discussion in Section 1.6. Under this regulatory alternative, States would continue to develop mDLs in a less structured manner while waiting for relevant guiding standards to be published which would likely result in dissimilar mDL implementation and technology characteristics.

Currently, States are partnering with multiple entities to develop mDL technologies with varying implementation and security approaches. This pattern of development can lead to implementation issues and economic inefficiencies. States and territories would likely develop mDL programs which may not facilitate high levels of interstate interoperability or meet eventual industry and Federal standards for use in official purposes. Under this alternative entities wishing to accept State or territory-issued mDLs may have to maintain several unique verification technologies, or risk arbitrarily excluding the holders of mDLs for which they lack verification technology. In addition, States that have developed mDL programs not completely in alignment with Federal or the consensus standards would have to expend additional resources to comply with the new requirements of a protracted rulemaking effort. Furthermore, Federal agencies will not be able to accept any existing mDLs for official purposes after the REAL ID Act's enforcement date.

Alternative 1 benefits include less Federal regulation and allowing the market to evolve naturally. This may result in additional products due to the divergent mDL technologies developed for each State.

Although this alternative would incur less of a regulatory burden, it would likely result in larger costs in the long run when formal mDL standards are finalized. It also does not address the coordination challenges associated with a lack of common standards as identified in Section 1.2.

5.2 Alternative 2: Provision of Presumptive Eligibility for Low-Risk States

The second alternative (Alternative 2), includes all of the requirements of the final rule, but would allow Federal agencies to accept mDLs issued by certain States whose mDLs TSA has deemed to be "low-risk," and therefore presumptively eligible to be granted a waiver. TSA would identify mDLs from States who have fulfilled the final rule's minimum requirements prior to applying for the waiver and have sufficiently demonstrated (e.g.., via TSA program or recent evaluation by a trusted party) to TSA that their mDL systems present adequate interoperability and low security and privacy risk. Under this presumptive waiver process, TSA would presume these "low-risk" States would ultimately be eligible for a mDL waiver, and allow Federal agencies to immediately (or conditionally) accept mDLs presumed eligible pending final approval of their mDL waiver applications.

Allowing Federal agencies to accept mDLs immediately, prior to an evaluation by TSA or another trusted party confirming satisfaction of mDL waiver application increases the risk of potential operational issues, security threats, privacy violations, and potential negative consequences associated with revoking a mDL waiver. This increased risk could be exacerbated if granting presumptive eligibility accelerates a State's mDL adoption and acceptance by other entities.

Immediate acceptance of lower risk State mDLs could speed up the application process, allow for earlier usage of mDLs for official Federal purposes, and accelerate broader mDL adoption and all the benefits associated with such usage. The provision under this alternative could reduce or help avoid costs associated with REAL ID enforcement if mDLs were not otherwise accepted.

TSA rejects Alternative 2 because it believes it would be infeasible to implement presumptive eligibility for acceptance of mDLs under the REAL ID Act, it would increase security and privacy risks, it would not reduce the burden on States to comply with any

framework TSA develops, and it would not reduce the burden on TSA to validate mDLs. There is no similar presumptive eligibility process for REAL ID. Under such an alternative, TSA would be initiating the largest scale acceptance of mDLs in the United States to date. Further, the emerging technology underlying mDLs is insufficiently established and accepted to assess the security and privacy of States' mDL systems without an evaluation by TSA or another trusted party. Hence, the provision under this alternative would increase the risk of accepting a fraudulent mDL or one that exploits or falls through security or privacy gaps.

5.3 Alternative 3: More Comprehensive mDL Standards

Under the third alternative (Alternative 3), TSA would establish more comprehensive requirements than those in the final rule to ensure mDLs comply with the REAL ID Act. States would be required to adopt these more comprehensive requirements to issue valid mDLs that can be accepted for official Federal purposes. These technical requirements could include further standards related to mDL issuance, provisioning, verification, readers, privacy, and other security measures.

Under this alternative, Federal agencies would not be able to accept mDLs for official purposes until the more comprehensive requirements are published. Any mDLs in use prior to publication would no longer be approved for REAL ID official purposes and as a result, any benefits that arise from their use discontinued. Further, establishing more comprehensive requirements at this time could stifle innovation in States currently creating their own mDLs. The technology that underpins mDL development and the stakeholder positions in that technology development industry continue to evolve. If TSA dictates more comprehensive requirements too soon, the most effective technology may not be realized as States would be forced to shift their focus to ensuring their technology is compliant. There would be less room to try out different technologies, and TSA would lose the potential experience and data gained from this period. Additionally, there is the potential for investment losses for States, as well as technology companies involved in mDL creation, on developments that are no longer compliant after regulations are developed. Many industry standards and guidance concerning mDLs are currently in development and are several years away from publication. If TSA prematurely establishes more comprehensive requirements, States and companies that invested time and capital into projects that would not meet future published standards incur

additional costs reworking or modifying to meet those future standards. More comprehensive requirements would constrain States and companies, regardless of past investments, from tailoring mDLs to better fit State-specific circumstances. Finally, TSA would also incur costs to ensure mDLs comply with the more comprehensive requirements.

Establishing more comprehensive requirements would ensure all mDLs are compliant with the REAL ID Act. More comprehensive requirements could make mDLs more uniform and enforcement more straightforward. Increased regulatory certainty could encourage some States to develop mDLs more quickly, potentially speeding adoption of mDLs and realization of their security, privacy, and efficiency benefits.

TSA rejected Alternative 3 because promulgating more comprehensive requirements for mDLs is premature, as both the industry standard and technology used by States are still evolving. Restrictive requirements could stifle innovation by forcing all stakeholders to pivot toward compliance. This could impede TSA from identifying and implementing a more efficient regulatory approach in the future.

5.4 Alternative 4: Establishing Minimum Requirements for Issuing REAL ID Compliant mDLs

The final rule would establish a process enabling TSA to grant a waiver to States who demonstrate that they meet specified requirements drawn from 19 industry and government standards and guidelines. Under Alternative 4, instead of a waiver process, TSA would establish these same requirements as the minimum levels of security, privacy, and interoperability necessary for States to issue REAL ID compliant mDLs.

Costs under this alternative would be roughly similar to the costs under the final rule. States that wish to issue REAL ID compliant mDLs would incur similar costs to comply with the standards and related requirements. This includes the escalated review and infrastructure security costs, which account for the vast majority of costs in the final rule. While this alternative would eliminate the waiver process, TSA would still require a mechanism to identify which States want their mDL considered REAL ID compliant and validate that their mDLs comply with the established minimum standards. Thus, States would likely need to provide information consistent with the waiver process, including the independent audit to ensure compliance. States would also be required to demonstrate through the audit process

how they are complying with the requirements of Sec. 37.10(a). TSA would likely incur a similar time burden to review States' compliance.

While this alternative would set minimum levels of security, privacy, and interoperability now, the mDL ecosystem is dynamic and evolving rapidly. The alternative effectively would codify standards that may become obsolete in the near future, as existing standards are revised, emerging standards publish, and new cyber threats proliferate. TSA estimates that as many as half of the existing standards may be updated by 2026. This approach may limit the ability for TSA to revise standards quickly, in turn, increasing the security and privacy risks of accepting mDLs. The Phase 2 rulemaking would likely have significant updates, informed by States' experience with the waiver process, revised and new industry standards, and new cyber threats.

Alternative 4 may provide benefits by reducing uncertainty for States and other affected entities, guiding State and industry investment. In addition, Alternative 4 avoids a waiver process that, while intended to be temporary and repealed when the relevant industry standards are published, could, in theory, be in place for longer than anticipated. Under Alternative 4, States and TSA may experience slight cost savings compared to the final rule with the elimination of waiver reapplications.

TSA rejected Alternative 4. Establishing minimum requirements that may become obsolete in the near future may limit the ability for TSA to revise standards quickly and would increase the security and privacy risks of accepting mDLs. In addition, this alternative implies a degree of certainty that TSA believes is premature given emerging standards that are still in development. Also, costs under Alternative 4 would roughly be similar to costs under the final rule.

5.5 Summary of Alternatives

Table 5-1 presents a summary of the qualitative costs and benefits and an evaluation for all four alternatives as well as the preferred alternative which is captured as the final rule in Chapters 3 and 4.

Table 5-1: Summary of Alternatives

Dimension	Final rule	Alternative			
	Preferred Alternative: Waiver process	Alternative 1: No change	Alternative 2: Provision of presumptive eligibility	Alternative 3: More comprehensive mDL requirements	Alternative 4: Minimum requirements for issuing REAL ID compliant mDLs
Costs	• Waiver process costs for States including familiarization, access to standards, waiver applications, reapplications, escalated review, and infrastructure security • Waiver process and mDL costs for TSA including access to standards, application review, reapplications review, procuring mDL readers, and training TSOs	• Wide variance in technology development standards • Verifiers may need 56 State and territory-specific technologies to accept mDLs • Additional expenses for those mDLs not aligned with industry standards	• Same costs as preferred alternative • Risk to validating insecure mDLs • Cost to TSA to determine which mDLs are low risk • Cost to States to familiarize themselves with 'low-risk' criteria and to complete waiver process	• Delays in development and implementation of mDLs • Prematurely establishing a standard will hamper innovation • States and territories lose investments in mDLs developed that are later found to be non-compliant • TSA burden to ensure full compliance	• Setting minimum requirements that may become obsolete increases the security and privacy risks of accepting mDLs • May limit ability for TSA to revise standards quickly • Roughly similar costs as preferred alternative
Benefits	• Assure that mDLs comply with REAL ID • TSA and verifiers gain experience with usage and validation of mDLs • Practical experience translates to more informed future investment	• mDL market expansion and natural development of mDL marketplace	• Speeds up application process and continues to widen adoption of mDL • Avoids additional costs due to REAL ID enforcement if mDLs not otherwise accepted	• Full assurance that mDLs are compliant with REAL ID	• Reducing uncertainty for States and other affected entities, guiding mDL investment • Avoids a waiver process that, while intended to be temporary, could be in place for longer than anticipated
Evaluation (Reason for Rejection of Alternative)		• Potential future costs and market failure implications	• Current technology insufficiently established to justify privacy and security risks	• Industry standards still under development • Cost of restrictive standards stifling innovation and resulting in inefficiencies	• Setting standards that may become obsolete in the near future increases the security and privacy risks of accepting mDLs

6 REGULATORY FLEXIBILITY ANALYSIS

The Regulatory Flexibility Act (RFA) of 1980, as amended,[108] was enacted by Congress to ensure that small entities (small businesses, small not-for-profit organizations, and small governmental jurisdictions) will not be unnecessarily or disproportionately burdened by federal regulations. The RFA requires agencies to consider the impacts of their rules on small entities. Section 603(a) of the RFA requires that an agency prepares and makes available for public comment a regulatory flexibility analysis whenever the agency is required by law to publish a final rulemaking. Further, section 605 of the RFA allows an agency to certify a rule in lieu of preparing an analysis if the regulation is not expected to have a significant economic impact on a substantial number of small entities.

In accordance with the RFA, and pursuant to 5 U.S.C. 605(b), TSA certifies that the final rule will not have a significant economic impact on a substantial number of small entities, including small governmental jurisdictions.[109] The final rule will directly impact any of the States that choose to apply for a waiver that will permit mDLs issued by those States to be accepted for official Federal purposes. For the purposes of the RFA, States and tribal governments are not considered small governments. mDLs are issued by the States and thus not considered small entities. As described in Section 2.2, the final rule will indirectly impact: mDL users who are individuals carrying mobile devices and also not considered small entities under the RFA.[110] mDL technology providers (e.g. companies or vendors developing mDL technology) and entities that accept mDLs (relying parties), including those for official Federal purposes as identified in the REAL ID Act, may be indirectly impacted by the final rule and an analysis on the potential impact of small entities is not required[111] and, at this time, has not been performed.

[108] Regulatory Flexibility Act, Pub. L. No 96-354, 94 Stat. 1164 (codified at 5 U.S.C. 601).
[109] *See* 5 U.S.C. section 601(5). The RFA defines "small governmental jurisdiction" as the government of a city, county, town, township, village, school district, or special district with a population of less than 50,000.
[110] Minimum Standards for Driver's Licenses and Identification Cards Acceptable by Federal Agencies for Official Purposes; Final Rule, 73 FR 5272 (Jan. 29, 2008); codified at 6 CFR part 37 (2008 Final Rule).
[111] SBA's 2017 "A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act" pages 64-65. https://cdn.advocacy.sba.gov/wp-content/uploads/2019/06/21110349/How-to-Comply-with-the-RFA.pdf.

7 PAPERWORK REDUCTION ACT

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501. et seq.) requires that TSA consider the impact of paperwork and other information collection burdens imposed on the public. Under the provisions of PRA section 3507(d), TSA must obtain approval from OMB for each collection of information it conducts, sponsors, or requires through regulations. This final rule will call for a collection of information under the PRA. Accordingly, TSA has submitted to OMB the final rule and this analysis, including the sections relating to collections of information, and is pending approval. *See* 5 CFR 1320.11(a). TSA has published a separate notice in the *Federal Register* soliciting comment on the PRA collection included in this final rule. As defined in 5 CFR 1320.3(c), "collection of information" includes reporting, recordkeeping, monitoring, posting, labeling, and other similar actions. As protection provided by the PRA, as amended, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. This section provides the description of the information collection and of those who must collect the information as well as an estimate of the total annual time burden. TSA cannot request submission of waiver applications under this rule until OMB has approved the information collection.

The final rule establishes a process for States to apply to TSA for a waiver. Such a request is voluntary but will require the submission of a mDL waiver application, resubmission of a mDL waiver application deemed insufficient or denied, and reapplication for a mDL waiver when the term of the mDL waiver expires. States must report to TSA any significant modifications that a State makes to its mDL issuance processes that materially differ from information that the State provided in its application. States must also report imminent or serious threats to security, privacy, or data integrity that acceptance of a State's mDL may cause. All of these items will be considered new information collections.

TSA uses the current state of mDL implementation to inform its estimate on how many State entities will request a mDL waiver during the period of analysis. All fifty states, the District of Columbia, and five territories (collectively referred to as States) are eligible to apply for a mDL waiver as prescribed in the final rule. However, TSA assumes that not all States will apply for the mDL waiver. As discussed in Section 2.2.1, TSA assumes fifteen states will

apply for a mDL waiver in Year 1 of the analysis, ten states in Year 2, and five states in Year 3.[112]

Following the State submission of its mDL waiver application, TSA will determine if the application is approved, insufficient, or denied. States are allowed to amend an insufficient or denied mDL waiver application and resubmit to TSA review. TSA assumes all initial mDL waiver applications will be deemed insufficient and that 90 percent of States will resubmit their mDL waiver applications.[113]

A State's mDL waivers will be valid for three years. Therefore, States granted a mDL waiver in Year 1 will need to reapply in Year 4 which is beyond the scope of this particular information collection.

TSA technology SMEs estimate that completing the mDL waiver application materials will take, on average, 20 hours to complete. TSA also estimates that completing materials for mDL waiver resubmissions will take 25 percent of the initial mDL waiver application time which equates to 5 hours.[114] Finally, TSA estimates that completing the materials for mDL waiver reapplications will take 75 percent of the initial mDL waiver application time which equates to 15 hours.[115]

TSA does not possess sufficient information to estimate the frequency of States reporting material changes to mDL issuance processes or threats to security, privacy, or data integrity. TSA assumes there will be no reporting within the three-year Paperwork Reduction Act cycle.

These hour burden estimates are combined with the number of collection activities to calculate the total and average time burden associated with the final rule. TSA estimates the final rule's total three-year burden for mDL waiver applications, mDL waiver resubmissions, and mDL waiver reapplications is 57 responses and 735 hours. TSA estimates an average

[112] Each State will submit one mDL waiver application.
[113] TSA assumes the remaining 10 percent of applications deemed insufficient will no longer pursue a mDL waiver and wait until the mDL environment is more fully developed. TSA intends to work with interested States to meet the mDL criteria thereby not resulting in any denials.
[114] mDL Waiver Resubmission burden = 20 hours [initial mDL waiver application burden] x 0.25 = 5 hours.
[115] mDL Waiver Reapplication burden = 20 hours [initial mDL waiver application burden] x 0.75 = 15 hours.

yearly burden of 19 responses and 245 hours. Details of the calculation can be found in Table 7-1.

Table 7-1: PRA Information Collection Responses and Burden Hours

Collection Activity	Number of Responses						3-Year Time Burden (hours)	Average Annual Time Burden (hours)
	Year 1	Year 2	Year 3	3-Year Total Responses	Average Annual Responses	Time Per Response (hours)		
	a	b	c	d = a + b + c	e = d / 3	f	g = d * f	h = g / 3
mDL Waiver Application	15.0	10.0	5.0	30.0	10.0	20	600	200
mDL Waiver Resubmission	13.5	9.0	4.5	27.0	9.0	5	135	45
mDL Waiver Reapplication	0	0	0	0	0	15	0	0
Total	**28.5**	**19.0**	**9.5**	**57.0**	**19.0**		**735**	**245**

In addition, States will incur costs associated with audits of their mDL infrastructure. As discussed in Section 2.4.1, TSA estimates this cost at $26,974 per submission. States will incur this cost for the initial mDL waiver application and mDL waiver reapplication. As there are no reapplications anticipated for this information collection request, TSA multiplies the annual average number of mDL waiver applications from Table 7-1 above (10) and the audit cost of $26,974 for an average annual independent entity audit cost of $269,742.

8 INTERNATIONAL TRADE IMPACT ASSESSMENT

The Trade Agreements Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. The Trade Agreements Act does not consider legitimate domestic objectives, such as essential security, as unnecessary obstacles. The statute also requires that international standards be considered and, where appropriate, that they be the basis for U.S. standards. TSA has assessed the potential effect of this final rule and has determined this rule will not have an adverse impact on international trade.

9 UNFUNDED MANDATES REFORM ACT ANALYSIS

Title II of UMRA, Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments as well as the private sector. Under Section 202 of the UMRA, TSA generally must prepare a written statement, including a cost–benefit analysis, for final rules with "Federal mandates" that may result in expenditures by State, local, and Tribal governments in the aggregate or by the private sector of $100 million or more (adjusted for inflation) in any one year. Before TSA promulgates a rule for which a written statement is required, Section 205 of UMRA generally requires TSA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of Section 205 do not apply when they are inconsistent with applicable law. Moreover, Section 205 allows TSA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Secretary publishes an explanation with the final rule about why that alternative was not adopted.

Before TSA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must develop under Section 203 of UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments; enabling officials of affected small governments to have meaningful and timely input in the development of TSA regulatory proposals with significant Federal intergovernmental mandates; and informing, educating, and advising small governments on compliance with the regulatory requirements.

When adjusted for inflation, the threshold for expenditures becomes $177.1 million in 2022 dollars. TSA has determined that this rule does not contain a Federal mandate as it is voluntary. Furthermore, estimated expenditures for State, local, and tribal governments is below $177.1 million in the aggregate in any one year. This regulatory evaluation documents the costs and alternatives associated with this regulatory action.