Office of Regulatory Management

End of Administration Report

Office of Governor Glenn Youngkin

January 16, 2026

Introduction

When Governor Glenn Youngkin took office in early 2022, he laid out a vision for making Virginia the best place to live, work, and raise a family. A major part of this mission was combatting overregulation. Red tape imposes transaction costs that drive up the cost of living. Regulatory restrictions act as barriers to entry and make it hard to find work. And unnecessary regulations make it difficult for families to earn a decent income and provide opportunities for the next generation.

Overburdensome regulations have built up over decades, and right-sizing the regulatory burden would be no easy task. Recognizing this, Governor Youngkin created a whole new office, the Office of Regulatory Management (ORM), to focus on cutting red tape and modernizing the regulatory process. He tasked ORM with improving regulatory transparency, cutting regulatory burdens, expediting the permitting process, and using innovative technology to supercharge each of these efforts.

Now, almost four years later, Governor Youngkin's regulatory modernization effort has been a resounding success. Working with Virginia agencies, ORM has streamlined 35% of the regulations in the Virginia Administrative Code. It has also cut over 12 million words from guidance documents (which represents about 15 times the length of the King James Bible). ORM has worked with agencies to cut permit and license processing times by up to 80+%. It has accelerated these efforts by launching the first-ever initiative using agentic artificial intelligence to identify unnecessary regulatory burdens.

And best of all, ORM's regulatory streamlining efforts are saving Virginia citizens over $1.4 billion per year.

As Governor Youngkin's term concludes, ORM is publishing this report both to highlight the results that Virginia agencies have achieved and to offer insights to future administrations in Virginia and elsewhere for continuing this success. ORM's experience proves that regulatory reformers can achieve amazing outcomes at virtually no cost to the taxpayer. But modernizing outdated regulatory processes requires strong leadership and clear vision. It is our hope that our experience over the last four years will provide a blueprint that any reform-minded governor, legislator, or agency official can follow to deliver equally impressive results. And it is also our hope that the next administration will continue and build on these reforms, ensuring that Virginia remains the best place in America to live, work, and raise a family.

Regulatory Modernization

The Challenge

Most Americans are familiar with the model of government depicted in the famous *Schoolhouse Rock* series: the legislature passes laws, the executive branch enforces those laws, and the courts interpret the law. That may be the way constitutional government is *supposed to work*, but the reality is that the executive branch, acting through dozens of administrative agencies, actually does a lot of the lawmaking.

When a Virginia agency writes a law, which is known as a *regulation*, it is required to follow a process laid out in a statute known as the Administrative Process Act (APA). The APA requires that agencies issue a public notice explaining what they intend to do (Va. Code § 2.2-4007.01). It also gives members of the public an opportunity to comment on agencies' proposed regulations (Va. Code § 2.2-4007.01). It authorizes the Governor to create a process for executive branch review of regulations (Va. Code § 2.2-4013). And it requires agencies to go back every four years and review every regulation on the books to decide if it should be modified or eliminated (Va. Code §§ 2.2-4007.1, 4017).

When Governor Youngkin took office, there were significant gaps in the APA process. Many so-called "exempt" regulatory actions were not posted on the publicly available Virginia Regulatory Town Hall website and received no public comment. Agencies were not required to prepare a full cost-benefit analysis to ensure that regulations did more good than harm. In some cases, agencies did not even bother to go through the APA process, instead imposing requirements through so-called guidance documents, which are supposed to merely explain regulations without creating new requirements. And agencies largely ignored the periodic review process, either skipping it completely or just rubber-stamping regulations every four years, asserting that they remained necessary without doing any real analysis.

The Solution

Authorization: Executive Orders 19 and 51

As authorized by the APA, Governor Youngkin issued Executive Order 19 to improve the regulatory process. It implemented several innovations:

- Requiring all regulations (including "exempt" actions) and guidance document changes to appear on the Town Hall website
- Mandating that agencies list all regulations and guidance document actions anticipated in the coming year in a Unified Regulatory Plan

- Requiring every new regulation and guidance document to undergo a full cost-benefit analysis
- Directing agencies to cut at least 25% of the requirements in their regulations
- Creating the Office of Regulatory Management (ORM) to oversee this work

Early in Governor Youngkin's term, ORM considered using artificial intelligence (AI) to accelerate each of these initiatives. By early 2025, advances in AI technology, including especially the rise of so-called agentic AI, enabled ORM to deploy AI tools to provide critical support for agency officials in several aspects of regulatory review, and Governor Youngkin issued Executive Order 51 to do the following:

- Launch a pilot program using agentic AI to identify additional opportunities for streamlining regulatory requirements and cutting words from guidance documents
- Require agencies to use AI solutions as part of the four-year periodic review process, conducting a more robust analysis of existing regulations

Implementation

ORM has launched a variety of initiatives to implement the twin goals of transparency and efficiency in EOs 19 and 51. Key components of this work include the following:

1. Universal Listing on Virginia Regulatory Town Hall

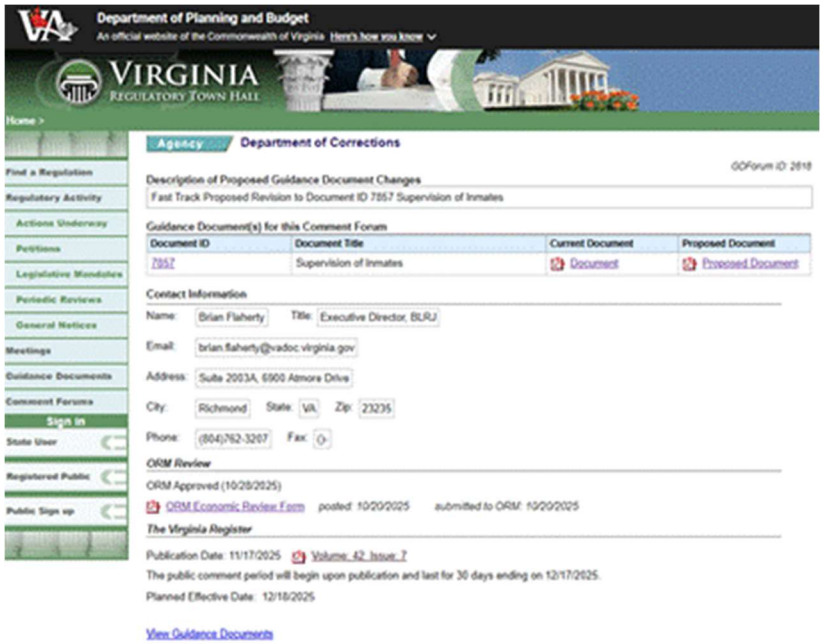
Transparency is critical to a first-in-class regulatory system: if the public does not know what regulatory changes are happening, it cannot participate meaningfully in the process.

In 2022, ORM worked with the Department of Planning and Budget (DPB) to overhaul the Town Hall website to ensure that every regulation from every executive branch agency appears online. This included so-called "exempt" regulatory actions that, prior to this initiative, were not featured on Town Hall. Virginia citizens now have access to, and can provide comments on, every single regulatory change executive branch agencies issue.

Exempt Regulatory Action on Town Hall

Early in 2023, ORM worked with DPB to create an online forum for reviewing guidance documents as well. As with regulations, all guidance document changes now appear on the Town Hall website:

Town Hall Guidance Document Forum



2. Unified Regulatory Plan

Citizens often file comments on regulations, and it is important to know the contents of the pipeline to be able to plan for that process. Beginning at the end of 2022, ORM launched the first Unified Regulatory Plan (URP), which required agencies to list every regulation and guidance document amendment they anticipated issuing over the coming state fiscal year (which begins on July 1 and ends June 30 of the following year). Agencies have repeated this process in every subsequent year (2023, 2024, and 2025). The public and Virginia agencies now use the URP as a critical planning tool.

Unified Regulatory Plan on Town Hall

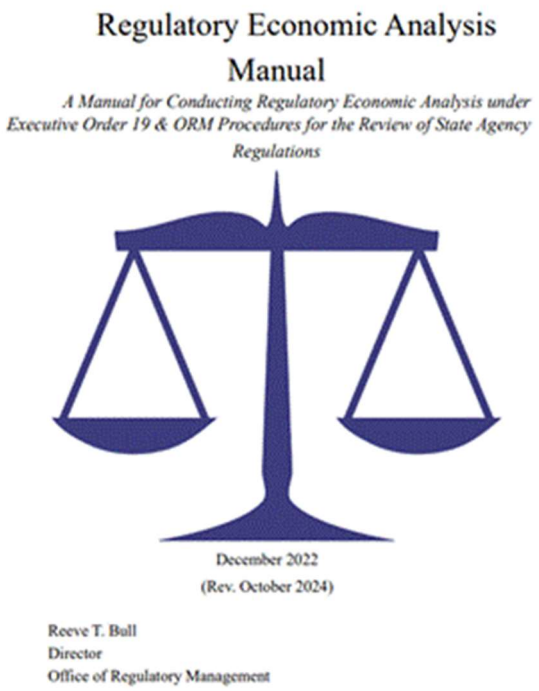
3. Regulatory Economic Analysis

Before an agency issues a regulation, it is critical to perform a cost-benefit analysis: How will the regulation improve people's lives? What costs will it create for businesses and the general public? Are there alternative, less costly ways of achieving the same result? Without answering these critical questions, the agency is just guessing as to whether the regulation is actually going to do more good than harm.

EO 19 therefore requires that every single regulatory and guidance document change undergo cost-benefit analysis. This compares favorably with federal practice, which subjects only about 2% of regulations to cost-benefit analysis, or practices in other states, many of which require no cost-benefit analysis whatsoever.

Virginia was able to adopt this nation-leading approach to regulatory economic analysis by ensuring that agencies have the resources they need to conduct sophisticated analyses. It released the Regulatory Economic Analysis Manual, which has been extensively praised in the regulatory economics literature and used by other states as a resource.

Regulatory Economic Analysis Manual



ORM also conducted training for regulatory agencies and has fielded dozens of inquiries related to specific challenges agencies have encountered. As a result, agencies have issued over one thousand regulatory economic analyses of proposed regulations and guidance documents. Unlike federal regulatory impact analyses that can run hundreds of pages, Virginia agencies' cost-benefit analyses are short (usually no more than 10 pages) and easy for a member of the public to pick up and digest.

4. Regulatory Streamlining

EO 19 set the ambitious goal of streamlining regulatory requirements by 25%. To achieve this goal, ORM first needed to answer a handful of important questions: What counts as a regulatory requirement? Can an agency get credit for cutting requirements if it reduces their stringency without eliminating them completely? How can agencies streamline guidance documents, which technically are not supposed to contain regulatory requirements? In early 2023, ORM issued the Regulatory Reduction Guide, which answers each of these questions.

Regulatory Reduction Guide

The Regulatory Reduction Guide's innovative approach to regulatory modernization has been critical to Virginia's extraordinary success. Past reduction efforts have relied on fairly crude metrics such as total number of regulations or pages in the regulatory code. Neither is an especially good measure of regulatory stringency, since regulations and code pages can vary massively in terms of the number of burdens they impose and the stringency of those burdens.

EO 19 therefore tasked agencies with streamlining regulatory requirements. A requirement consists of anything that dictates that a regulated party either "shall" or "must" do something. Requirements can also dictate that regulated parties *not* do something. All told, there are 335,511 requirements across the entire Virginia Administrative Code.

The Regulatory Reduction Guide further fleshed out what counts as reducing a requirement. The most obvious way of eliminating a requirement is cutting it completely. But there are ways to reduce the stringency of requirements without eliminating them. For example, Virginia's Board for Barbers and Cosmetology cut required training hours for cosmetologists from 1,500 to 1,000. Technically, the Board has not eliminated a requirement because training is still required. But it has reduced the burden of that particular requirement by one-third. ORM therefore gave the Board partial credit for that reduction, multiplying 0.33 by the number of requirements associated with it.

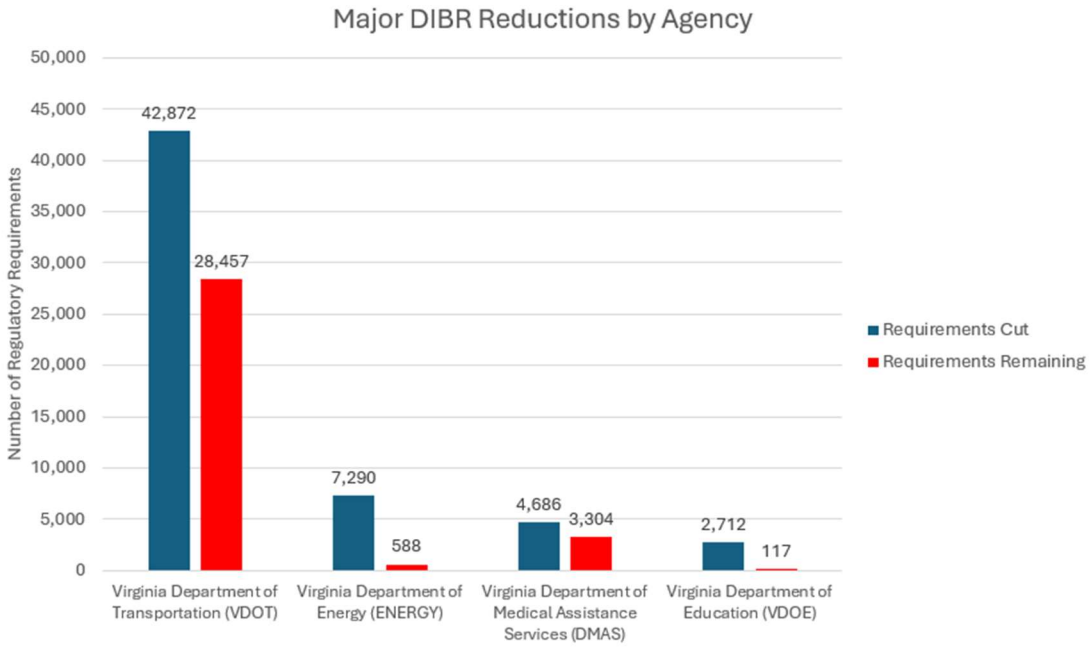
One of the most significant regulatory streamlining successes involved reducing the stringency of requirements in the Building Code. The Building Code runs over thousands of pages and includes a lot of requirements that are critical to the structural integrity of a home. But over the years, it has also expanded to include a lot of "gold plating," requiring features that are nice to have but that are not strictly necessary and that drive up the building cost of a house.

While implementing the most recent set of Building Code revisions, Virginia's Department of Housing and Community Development (DHCD) was able to identify requirements such as excessive insulation standards or overly strict limits on stair riser heights that drove up costs without providing meaningful increases in safety. By eliminating or reducing these requirements, DHCD was able to shave $24,102 off the construction cost of a new house (see Appendix I for detailed analysis). When divided by the $93,870 that experts estimate that regulatory restrictions add to the construction cost of a new home, DHCD's amendments resulted in a 25.7% reduction in regulatory stringency. Like the Barbers and Cosmetology Board, DHCD was able to capture partial credit for this change.

Virginia agencies were also able to achieve significant regulatory reductions by reviewing so-called "documents incorporated by reference" (DIBRs). Oftentimes, an agency will simply require regulated parties to comply with a privately developed standard rather than laying out the requirements in regulatory text (the Building Code mentioned earlier is one example). This approach can save a lot of time and ensure that the regulation matches prevailing industry practice, but it can be problematic if the DIBRs become out-of-date or are difficult to access.

When reviewing their DIBRs, Virginia agencies were able to identify documents running thousands of pages and containing tens-of-thousands of requirements. In many cases, those DIBRs were no longer being enforced. In others, the agency never intended the public to comply with every provision in the lengthy document, but it failed to specify precisely which part was mandatory. In still others, it mistakenly treated a guidance document as a DIBR, mandating compliance with a document that was merely intended to provide information on possible ways to achieve compliance.

In numerous instances, agencies were able to completely eliminate DIBRs and achieved enormous reductions by doing so. Here are a few of the most significant examples:



Finally, the Regulatory Reduction Guide provided critical insight on how agencies should review their guidance documents. First, it directed agencies to remove any binding regulatory requirements from guidance documents. In some instances, agencies were able to eliminate those requirements completely. In others, agencies adopted new regulations that incorporated requirements previously integrated in guidance. In either case, agencies alleviated confusion by ensuring that binding requirements appear only in regulations.

Second, the Regulatory Reduction Guide directed agencies to reduce the length of their guidance documents by 25%. To ensure as precise a tabulation as possible, the Guide used the total number of words (as opposed to pages) to measure the length of a guidance document.

Results

After almost four years of work, Virginia agencies have achieved some astounding results.

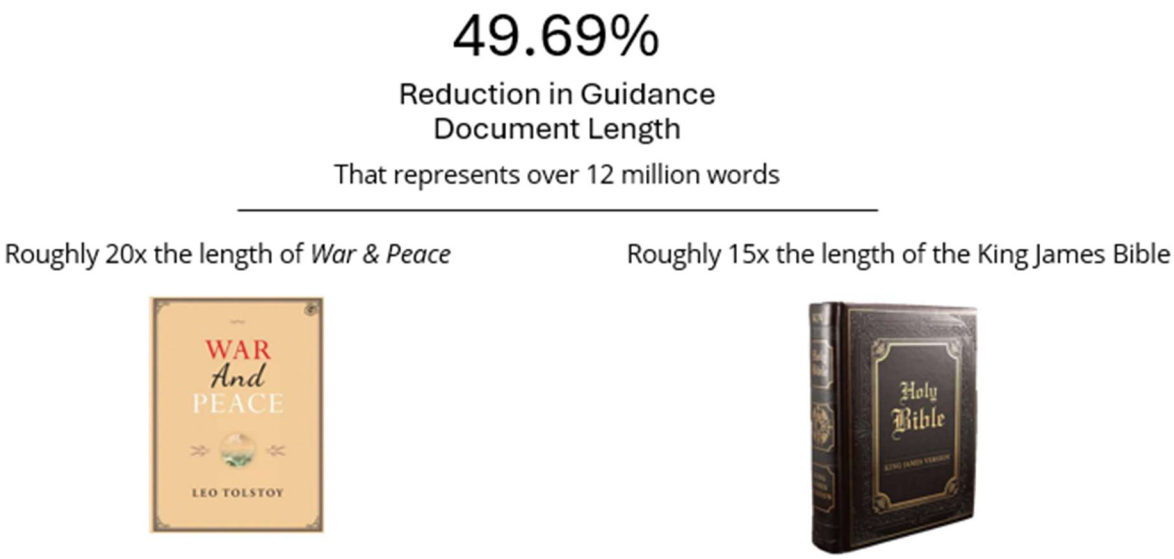
On the transparency front, every single executive branch agency's regulatory actions and guidance document amendments now appear on the Town Hall website. In the late summer or early fall of every year, ORM releases the Unified Regulatory Plan, which lays out every regulatory action and guidance document change anticipated in the coming state fiscal year. A process that was once largely opaque is now almost perfectly transparent.

Equally importantly, every regulatory action and guidance document amendment is now accompanied by a complete cost-benefit analysis. Performing this analysis has allowed agencies to identify some highly beneficial regulatory changes. Here are a few examples:

Agency	Regulatory Action
Board of Social Services	Agency eliminated the requirement for notarization of childcare forms which will save Virginians approximately $900,000 per year.
Board for Barbers and Cosmetology	Agency reduced mandatory training hours for cosmetologists from 1,500 to 1,000, saving approximately $2,700,000 per year.
Board for Barbers and Cosmetology	Agency eliminated the requirement that beauty shops have a dedicated bathroom on-site, saving about $2,335,000 per year.

On the efficiency front, Virginia agencies have achieved some jaw-dropping results. As of the release of this report, they had streamlined 35.70% of regulatory requirements, smashing the original 25% target.

They cut over 12 million words from their guidance documents, representing a 49.69% reduction. For context, that represents over 20 times the length of Leo Tolstoy's famously thick *War and Peace*, or 15 times the length of the King James Bible.



And most important of all, these changes save Virginia citizens over $1.4 billion per year in the aggregate. That represents $420 in the bank account of every single Virginia household.

To provide additional context, here are some key statistics on the regulatory reduction effort of the past four years.

Of the 66 Virginia agencies, 46 (70%) reached at least a 25% regulatory streamlining threshold (or did not have sufficient regulations to qualify). For guidance documents, 55 of 66 agencies (83%) reached the target (or did not have sufficient guidance documents to qualify). The following chart shows where each agency finished.

Secretariat	Agency	Baseline Discretionary Regulant Requirements	Current Discretionary Regulant Requirements	% Change in Requirements	Baseline Overall Guidance Document Appx. Length in Words	Current Overall Guidance Document Appx. Length in Words	% Change in Guidance Document Length
SOA	ELECT	924	588	-36.4%	566,848	419,204	-26.0%
SOA	DHRM	76	76	0.0%	1,529,823	0	-100.0%
SOA	DGS	416	311	-25.2%	233,700	227,802	-2.5%
SOA	VITA	3,694	2,249	-39.1%	280,935	191,605	-31.8%
SAF	DOF	51	38	-25.5%	3,189	0	-100.0%
SAF	VDACS	6,831	6,710	-1.8%	81,750	56,753	-30.6%
SAF	VRC	2,217	2,217	0.0%	16,000	0	-100.0%
SCT	DHCD	161,262	113,025	-29.9%	129,888	96,593	-25.6%
SCT	DNRG	10,220	2,820	-72.4%	488,279	435,646	-10.8%
SCT	SBSD	*N/A	*N/A	*N/A	0	0	+N/A
SOE	CNU	*N/A	*N/A	*N/A	206,000	0	-100.0%
SOE	DOE	5,626	2,172	-61.4%	1,525,443	1,086,947	-28.7%
SOE	GMU	8	3	-62.5%	511,318	135,461	-73.5%
SOE	SCHEV	497	347	-30.2%	63,433	63,433	0.0%
SOE	JMU	*N/A	*N/A	*N/A	3,250	0	-100.0%
SOE	LVA	*N/A	*N/A	*N/A	55,393	21,392	-61.4%
SOE	LU	*N/A	*N/A	*N/A	0	0	+N/A
SOE	NSU	*N/A	*N/A	*N/A	582,121	0	-100.0%
SOE	ODU	*N/A	*N/A	*N/A	0	0	+N/A
SOE	RU	*N/A	*N/A	*N/A	48,750	0	-100.0%
SOE	UMW	*N/A	*N/A	*N/A	0	0	+N/A
SOE	UVA	9	9	0.0%	676,500	451,250	-33.3%

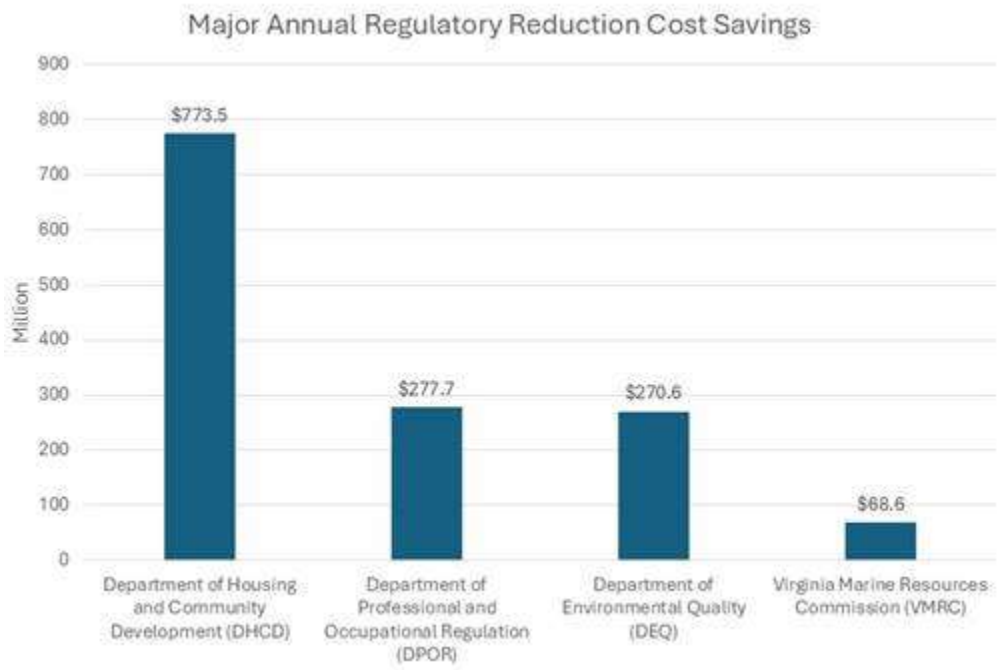
SOE	VCCS	*N/A	*N/A	*N/A	0	0	+N/A
SOE	VCU	*N/A	*N/A	*N/A	33,750	0	-100.0%
SOE	VMI	*N/A	*N/A	*N/A	204,250	0	-100.0%
SOE	VMFA	76	54	-28.9%	0	0	+N/A
SOE	VT	243	8	-96.7%	0	0	+N/A
SOE	VSU	*N/A	*N/A	*N/A	0	0	+N/A
SOE	W&M	128	21	-83.6%	0	0	+N/A
SOF	BOA	32	26	-18.8%	22,549	14,379	-36.2%
SOF	TAX	633	486	-23.2%	838,460	590,605	-29.6%
SOF	TRS	61	57	-6.6%	126,534	1,250	-99.0%
HHR	DARS	527	527	0.0%	861,095	583,122	-32.3%
HHR	DBHDS	2,494	1,963	-21.3%	475,553	285,377	-40.0%
HHR	DBVI	18	18	0.0%	278,191	108,201	-61.1%
HHR	DHP	7,412	7,083.17	-4.4%	230,500	153,909	-33.2%
HHR	DMAS	9,864	5,153	-47.8%	1,572,252	1,167,240	-25.8%
HHR	VDDHH	76	76	0.0%	4,930	505	-89.8%
HHR	VDH	14,475	14,362	-0.8%	2,452,500	2,571,546	4.9%
HHR	VDSS	5,335	4,606	-13.7%	1,511,000	180,660	-88.0%
SOL	DOLI	369	209	-43.4%	1,939,000	137,783	-92.9%
SOL	DPOR	10,027	7,489.3	-25.3%	80,648	54,145	-32.9%
SOL	DWDA	*N/A	*N/A	*N/A	0	0	+N/A
SOL	VEC	25	20	-20.0%	78,000	0	-100.0%
SNHR	DCR	2,415	1,045	-56.7%	444,697	99,099	-77.7%
SNHR	DEQ	1,246	927	-25.6%	3,732,750	1,571,750	-57.9%
SNHR	DHR	949	240	-74.7%	184,492	54,715	-70.3%
SNHR	DWR	1193	883	-26.0%	489,250	489,250	+N/A
SNHR	VMRC	924	672.1	-27.3%	73,593	52,339	-28.9%
PSHS	BLRJ	863	792	-8.2%	14,868	12,897	-13.3%
PSHS	DCJS	2,637	2,579	-2.2%	45,386	34,598	-23.8%
PSHS	DOC	423	71	-83.2%	0	0	+N/A
PSHS	DFS	126	84	-33.3%	8,984	8,984	0.0%

PSHS	DJJ	4,827	3,840	-20.4%	282,727	189,530	-33.0%
PSHS	VDEM	0	0	*N/A	142	142	+N/A
PSHS	VDFP	103	73	-29.1%	90,396	2,380	-97.4%
PSHS	VSP	35	22	-37.1%	22,503	0	-100.0%
SOT	DOAV	418	301	-28.0%	56,925	51,319	-9.8%
SOT	DMV	2,054	1,575	-23.3%	128,231	100,688	-21.5%
SOT	DRPT	*N/A	*N/A	*N/A	190,000	91,250	-52.0%
SOT	MVDB	54	54	0.0%	10,250	10,250	0.0%
SOT	VDOT	73,618	29,845	-59.5%	602,915	302,476	-49.9%
SOT	VPA	*N/A	*N/A	*N/A	42,708	23,489	-45.0%
SOT	VPRA	*N/A	*N/A	*N/A	0	0	+N/A
SVDA	DMA	*N/A	*N/A	*N/A	10,250	3,500	-65.9%
SVDA	DVS	*N/A	*N/A	*N/A	24,500	24,500	0.0%
Total		335,511	215,727	119,784	24,167,399	12,157,964	12,009,435
Percentage				-35.70%			-49.69%

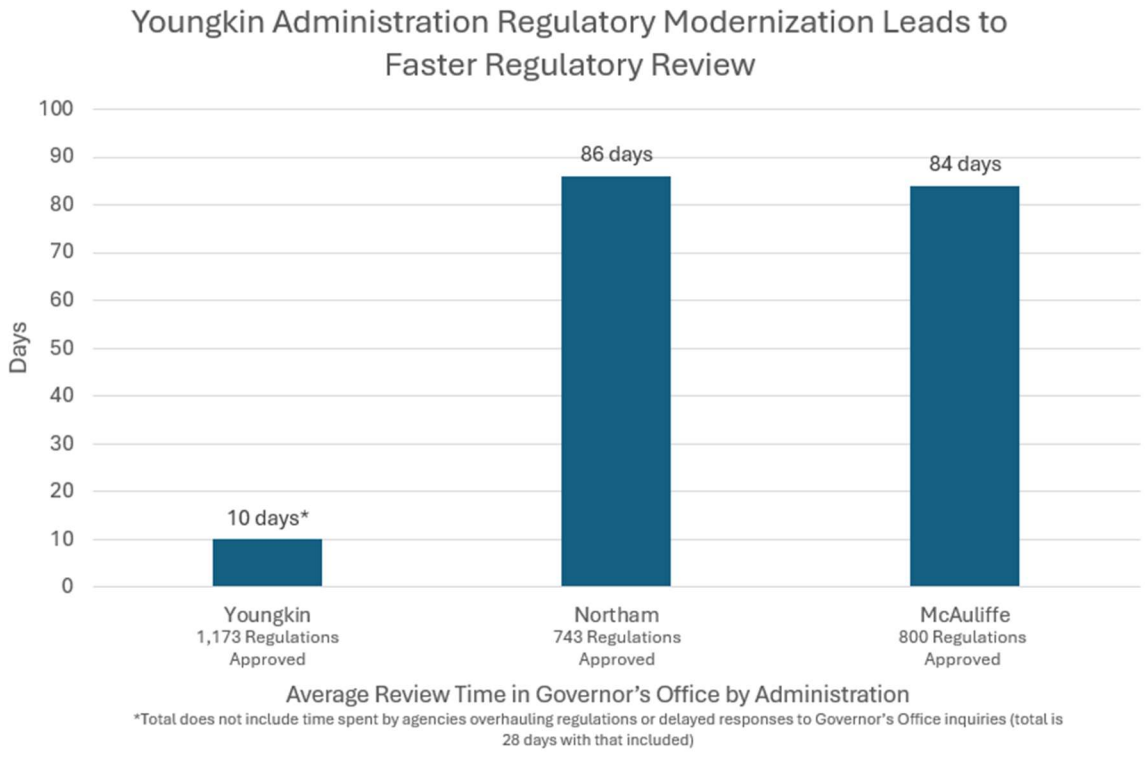
*For agencies that are reflected as "N/A" in the chart, one of the following is true: (1) the agency does not issue any discretionary regulatory requirements or (2) the agency does not have sufficient regulatory requirements for a 25% reduction to be feasible.
+For agencies that are reflected as "N/A" in the chart, one of the following is true: (1) the agency does not have guidance documents or (2) a separate statute mandates the posting of all agency guidance documents.

Importantly, though not every agency achieved the 25% target, no agency increased regulatory requirements on net in the last four years. And only one agency increased the overall length of its guidance documents.

Some regulations impose greater costs than others. In that light, though the requirement streamlining efforts were distributed proportionately among the 66 agencies, the large cost savings tended to be concentrated. The following chart shows the largest cost savings by agency.

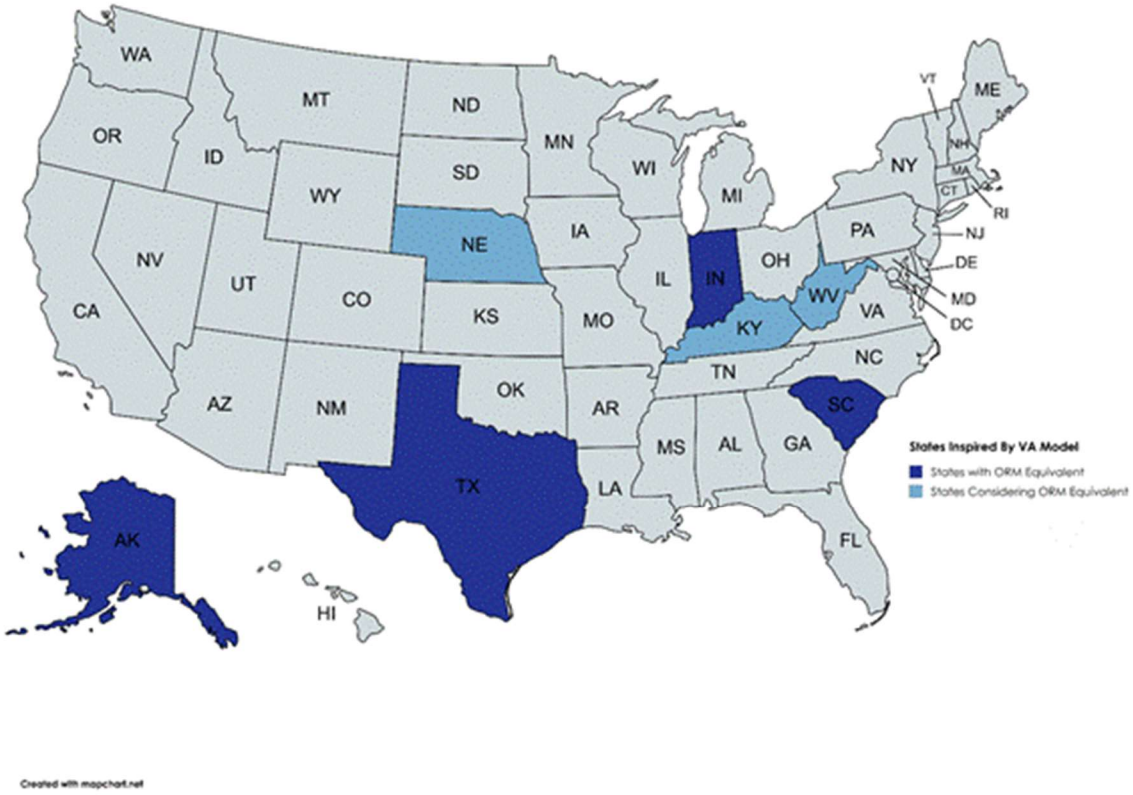


In addition to achieving these significant regulatory streamlining results, ORM was also able to significantly expedite the regulatory review process. The chart below shows how executive-branch review times in the Youngkin Administration compared to those in other recent administrations.



When one state achieves these sorts of extraordinary results, other states will necessarily sit up and take notice. The ORM Team has had the privilege of working with regulatory reformers in many other states, and several (Texas, Indiana, Alaska, and South Carolina) have implemented some version of the Virginia model. Several other states are currently considering legislative or executive reforms based on Virginia's success.

States Inspired by Virginia Regulatory Reform



As legislators in other states consider similar reforms, they now have access to a model bill adopted by the American Legislative Exchange Council that would create an ORM in the adopting state. It is our hope that the resources in this report will prove useful to states that adopt this sort of legislation.

The Future

As future Virginia governors and legislators consider ways to build upon the success of the last four years, there are several additional reforms they might adopt. The most important is maintaining ORM as an office dedicated to promoting regulatory modernization. State agencies can achieve extraordinary things when led by a dedicated team in the Governor's office steering

them towards a common goal. The cost to state government of maintaining a dedicated regulatory reform office is minimal (ORM staff consists only of four individuals), and the payoff to citizens of the Commonwealth is enormous ($1.4 billion per year and growing).

Though future ORM leadership will undoubtedly identify an array of worthwhile goals, here are a handful of initiatives that are still underway and that are worthy of continued effort in the next administration.

1. Enhancing Periodic Review (Especially through AI Use)

As noted above, prior to ORM's reform initiatives, agencies often ignored their periodic review obligations or merely rubber-stamped regulations every four years, summarily claiming a continued need without undertaking any real analysis. And guidance documents were not subject to any sort of periodic review requirement.

Agencies have engaged in more rigorous review of regulations and guidance documents in the last four years. In the latter half of 2025, they have also used AI tools to help them conduct that analysis. These AI tools can offer recommendations for cutting excessive words, identify contradictions within regulations or between regulations and statutes, assess regulatory benefits and costs, and compare Virginia regulations to those of sister states. The tools can provide agencies with nearly instantaneous insights, performing research that would have taken human beings countless hours to compile.

Executive Order 51 directs agencies to continue these initiatives, using AI to conduct comprehensive assessments of regulations every four years. It also directs agencies to create periodic review schedules for guidance documents, ensuring that each such document is reassessed at least every four years.

By continuing this initiative, the next administration can avoid the "regulatory creep" that inevitably arises in the wake of a regulatory modernization initiative. It will ensure that agencies identify any regulatory requirements that have become outmoded and avoid cluttering the code with additional red tape.

2. Eliminating Unnecessary Documents Incorporated by Reference

ORM conducted a detailed review of the entire Virginia Administrative Code and found a total of 476 unique documents incorporated by reference, or "DIBRs." Of these, fully 42% did not include hyperlinks.

In some cases, the documents are unavailable because they are copyrighted. In other cases, the documents may no longer be available since they were first published over a decade ago. In both cases, public access to the law is severely limited.

As noted above, Virginia agencies were able to eliminate over 57,000 requirements from incorporated documents over the last four years. But tens of thousands of requirements remain.

Future administrations should direct agencies to carefully assess each of these incorporated documents to ensure that they are truly necessary. For those documents that are deemed necessary, agencies should determine whether the key requirements can be moved from behind paywalls and housed in regulatory text. ORM has worked with an AI vendor that has developed a tool to scan each such document, identify the relevant requirements, and then identify which portions are regulatory text that should be retained.

Since this pilot project occurred very late in the Administration, there was insufficient time to process all of these documents. Future administrations should review every single document and either eliminate it or convert it to regulatory text, using AI analysis as appropriate.

3. Further Streamlining Guidance Documents

As part of the AI-empowered regulatory reduction pilot of Executive Order 51, ORM's vendor scanned every single guidance document listed on the Town Hall website. In most instances, the AI tool suggested that these documents could be shortened by anywhere from 10% to 50%.

At the end of the Administration, agencies had begun the process of streamlining numerous guidance documents in response to these changes. Many agencies expressed an interest in streamlining additional documents but indicated that they had insufficient time to do so.

The next administration should pick up these efforts and work with agencies to adopt appropriate revisions to remaining guidance documents. The 49.69% reduction the current Administration achieved consisted almost exclusively of eliminating outdated or unnecessary guidance documents completely. Based upon the average reduction figures observed during the pilot program, it appears feasible that agencies could cut an additional 20% of words from remaining guidance documents by making some or all of the changes recommended as part of the pilot program.

4. Optimizing Regulations for AI-Empowered Analysis

The Virgina Administrative Code (VAC) is especially well-adapted to AI-empowered analysis: it is readily available online, very well-organized, and presented in a machine-readable format.

But it has one major limitation that complicates AI analysis: though each section of the VAC cites at least one authorizing statute, these citations are often incomplete. There are often additional statutory provisions that are not cited, including especially those that may appear in the Budget Act, and Virginia regulations almost never cite federal statutory or regulatory requirements.

This lack of comprehensive citation complicates AI-empowered analysis because an AI tool can much more easily compare a regulation to the underlying statute if the regulation provides a comprehensive citation of statutory authority. Otherwise, the AI tool must scan the entirety of Virginia and federal law, which is both extraordinarily time-consuming and prone to producing false positives.

The time required for agencies to provide full statutory citations should be relatively small. The time required to then maintain those citations going forward is even smaller still. Given the enormous benefits associated with AI-empowered regulatory analysis, this small upfront investment should pay significant dividends.

Permitting Improvement

The Challenge

For many hard-working Virginians, a professional license is one of the most valuable assets they possess. For businesses, obtaining a state permit can mean the difference between success and failure. Given the importance of these government-issued forms of permission, it is critical that they be processed quickly and that citizens know how long the process will take and can plan accordingly.

Unfortunately, the permitting and licensing process has long been a black box. Applications can take months or, in some cases, even years to process, and applicants have traditionally had no idea where their applications stand.

In addition, the permitting and licensing processes were terribly outdated. Many permits and licenses are still processed in paper form. Applicants must send a check to the agency to pay the processing fee. Agencies fail to reassess permitting and licensing requirements to determine if they're still necessary or if the application can be simplified. And every agency operates its own system, rather than working with other agencies to pool resources.

The Solution

Authorization: Executive Orders 19 and 39

When Governor Youngkin created ORM, he tasked it with achieving "a substantial shortening of the time required for an approval" of permit/license applications in Executive Order 19.

Two years later, after agencies had already achieved significant success posting their permit applications online through the Virginia Permit Transparency (VPT) dashboard described below, Governor Youngkin redoubled these efforts by issuing a second order, Executive Order 39. It required agencies to do the following:

- Post all multi-step permit and license applications on the VPT dashboard
- Eliminate any permits or licenses that had become unnecessary
- Where possible, simplify any permits and licenses that are retained
- Digitize all permit and license applications, allowing for online application and payment

Implementation

In the last several years, Virginia agencies have undertaken a wide variety of initiatives to improve and modernize their permit and license applications.

1. Virginia Permit Transparency (VPT)

In our highly connected world in which essentially everyone now has a smartphone, it is now possible to track virtually every service that requires a waiting period. Whether it's ordering a pizza, tracking a delivery, or waiting for a shared ride service, smartphone apps now allow you to monitor progress down to the minute.

Governmental services have historically been an exception to that trend. But there's no reason why the same model can't apply. Early in the Youngkin Administration, Virginia's Department of Environmental Quality (DEQ) decided to implement a tracking system for its agency permits. Over the course of several months, it built a new platform called Permitting Enhancement and Evaluation Platform, or "PEEP" for short.

PEEP proved to be a resounding success, providing an unprecedented level of transparency into the environmental permit process. The Youngkin Administration therefore decided to expand the DEQ pilot to include every multi-step permit or license application issued across state government.

The result is the award-winning Virginia Permit Transparency (VPT) website. It includes permit and license applications across 10 different agencies,[1] which number in the tens of thousands per year. Using VPT, a permit applicant can now hop online and see exactly where a permit is in the process and whether it is delayed. If there is a delay, an applicant now knows exactly whom to call. This is improving operations not only for applicants, who are enjoying a never-before-seen level of transparency, but also for agencies, who are fielding far fewer calls from frustrated applicants. Agencies have also been able to use VPT as a management tool and, as explained more fully below, significantly speed up processing times.

2. Processing Time Reduction

VPT now provides a wealth of data regarding current and historical processing times. Agencies can access over a dozen reports that parse the data in various ways, showing overall processing time averages, processing time averages by permit/license, and numerous other data points.

Agencies that are not on VPT have had to compile that information by hand. They have worked with ORM to submit detailed spreadsheets every quarter that show current processing times and track whether those have improved or gotten worse.

ORM asked each agency to set a goal for processing time reductions. This involved many case-by-case determinations, given the wide variety of permit and license types. If a permit was already being processed very quickly (e.g., 1 day or less), or if most of the steps were beyond the agency's control (e.g., federal partners controlled most relevant steps), further processing time reductions would not have been feasible. Agencies therefore set processing time reduction goals by individual permit type (e.g., reduce the Virginia Board of Accountancy (VBOA) License Reinstatement processing time by 20%[2]).

3. Permit/License Simplification and Elimination

Like regulations, permits and licenses should be periodically reassessed to determine if they are still needed or if they can be simplified in some way. EO 39 therefore directed agencies to review every single type of permit and license to determine (a) if it was still needed; (b) if it

[1] These agencies include the Department of Conservation and Recreation (DCR), Department of Environmental Quality (DEQ), Department of Motor Vehicles (DMV), Department of Energy, Department of Agriculture and Consumer Services (VDACS), Department of Health (VDH), Department of Transportation (VDOT), Department of Social Services (DSS), Marine Resources Commission (VMRC), and the State Police (VSP).

[2] As of November 2025, the Virginia Board of Accountancy (VBOA) achieved a 70% reduction in average processing time for the VBOA License Reinstatement, going from 10 days to now 3 days to complete the entire application process.

included unnecessary steps that could be eliminated; and (c) whether it could be converted to a different, more streamlined permit type.

4. Permit Digitization

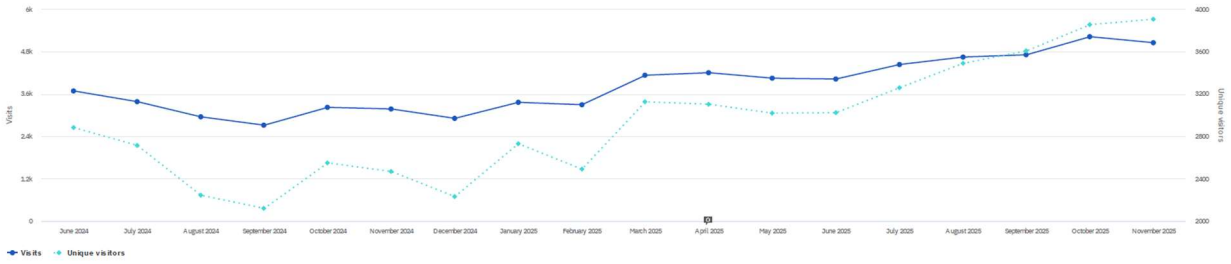
In 2025, everyone expects essentially everything to be available online. Most Virginia permits and licenses are now digitized, but a significant number still involve a paper-based application. Moving to a 100% digital application, which would allow the user to fill out all necessary forms and then submit a payment online, saves both applicants and agency officials time and money. EO 39 therefore set the goal of moving to online processing for every permit/license application other than a small handful that must continue to be processed in person or in paper form (e.g., mail in component requirement for field testing instruments).

Results

The VPT dashboard has now been live for over a year. In that time, it has drawn widespread praise. The American Legislative Exchange Council introduced a model bill that is directly based on EO 39. The Foundation for American Innovation and Recoding America Fund jointly issued an extensive report highlighting the success of VPT and urging other states to launch similar platforms. The Environmental Policy Innovation Center also launched a report around the same time, similarly encouraging other states to look to the Virginia model and highlighting some of the factors that made VPT so successful. VPT recently won the 2025 Commonwealth Technology Award, building on PEEP's prior success in winning multiple awards.[3]

As shown below, VPT has steadily built its user base over the year-and-a-half since it launched.

Growth in VPT User Base from June 2024 to Present



[3] These awards include: (1) Environmental Council of the States (ECOS): 2023 State Program Innovation Award, Agency Management & Emergency Response Categories; (2) 2023 Commonwealth Technology Awards: Best Customer Experience Initiative – State; and (3) American Public Works Association (APWA) Mid-Atlantic Chapter: 2024 Project of the Year, Community Engagement

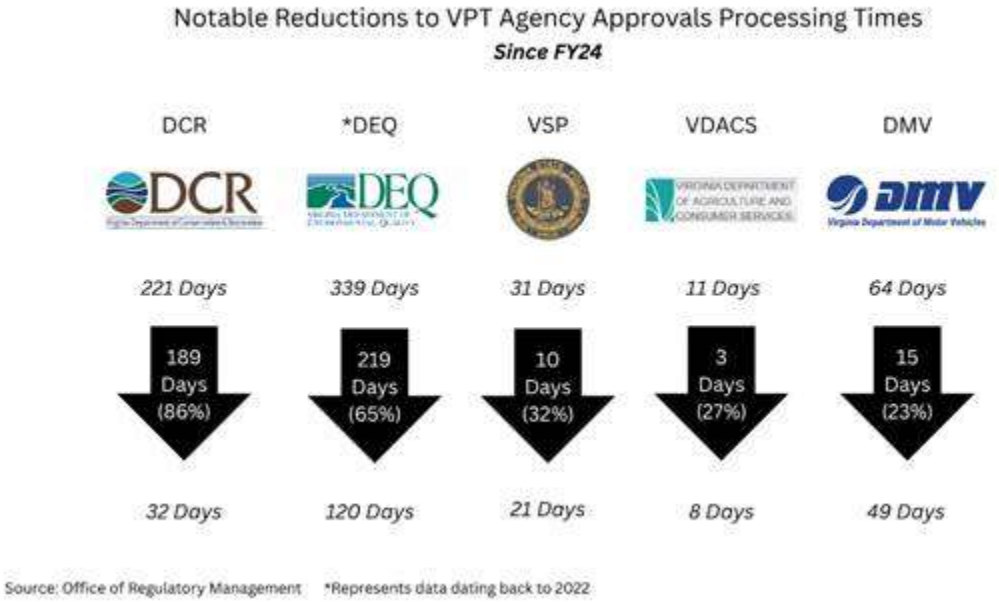
This unprecedented transparency into the permitting process has made Virginia a model for both other states and federal agencies, many of which have reached out to ORM about launching similar dashboards.

The enhanced transparency has also directly contributed to a far more efficient permitting process: once permit and license applications are publicly accessible, the review times trend downward. This is true for a handful of reasons.

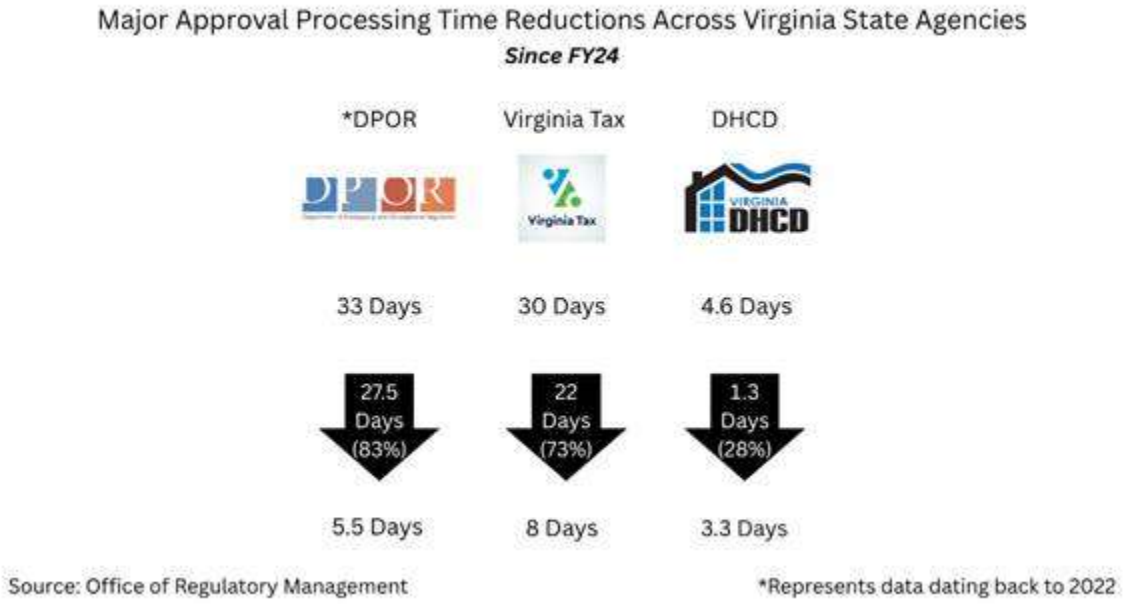
First, transparency means accountability: if a single office is taking longer to review a permit than expected, that information is now public knowledge. This naturally leads to improved performance over time.

Second, transparency also empowers management to identify and remedy issues. In addition to the public-facing dashboard, VPT includes a back-end program that provides additional information to agency officials, including a more granular window into individual permit/license steps. Using this system, agencies can pinpoint precisely which office or which permit writer is taking especially long to process applications. This provides an opportunity for coaching staff or teams that are underperforming. It also allows agencies to reallocate work when one individual or office has an unusually heavy workload.

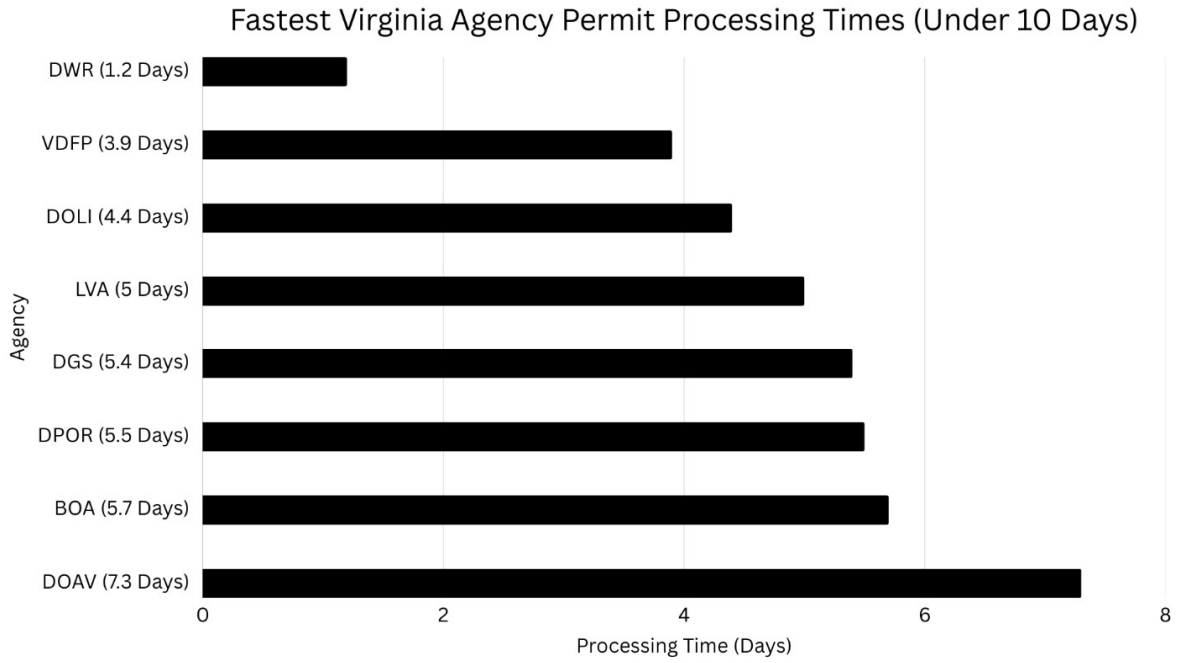
As the chart below demonstrates, the results are striking. Five VPT-participating agencies have now reduced their processing times by 20% or more.



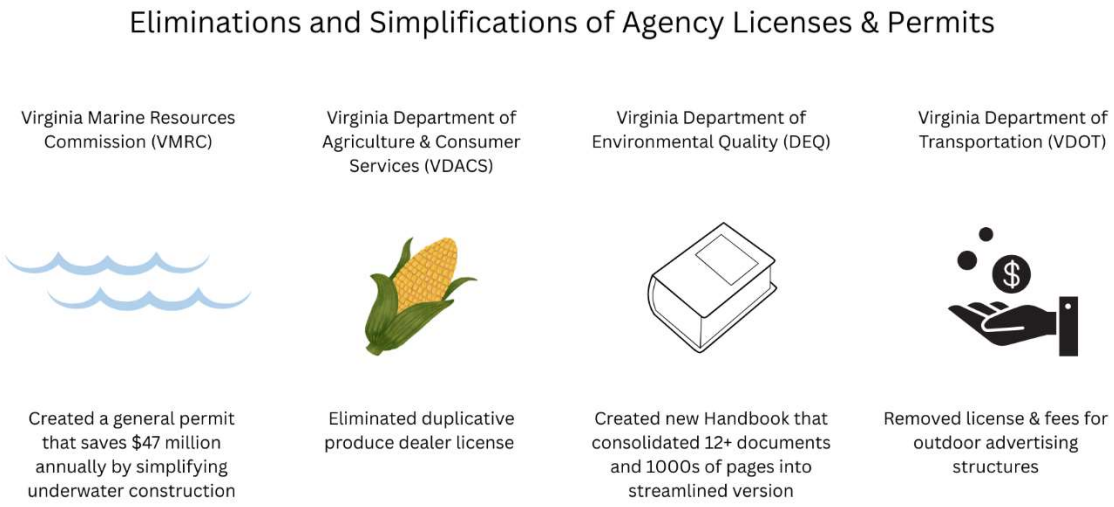
Agencies that do not participate in VPT (because their permits consist only of one step and therefore do not lend themselves to display on a dashboard using Gantt charts) have also seen significant processing time reductions. The chart below shows the top performers.



In many cases, either as a result of improved processing times or of ongoing commitment to excellent performance, agencies are processing permits and licenses very quickly. The next chart shows some of the Virginia agencies with the shortest processing times.



In addition to speeding up processing of existing permits and licenses, agencies have reassessed each of their permitting/licensing programs to determine what might be eliminated or simplified. The chart below shows some of Virginia's successes on that front.



Source: Office of Regulatory Management

Digitization of permit and license applications is a work in progress. Approximately 68% of permit/license applications are fully digitized (meaning one can both submit an application and provide payment entirely online), whereas 32% have yet to be digitized. The chart below shows progress by agency.

Agency	Approvals Total Volume	Fully Digitized	Not Fully Digitized	Completion (%)
VDH	69,259	780	68,479	<1%
DPOR	44,308	0	44,308	0%
VDACS	57,592	17,853	39,738	31%
VRC	6,185	0	6,185	0%
VSP	4,828	0	4,828	0%
DEQ	5,340	2,273	3,067	43%
DHP	78,202	76,002	2,200	97%
VDFP	2,164	0	2,164	0%
DOA	1,238	0	1,238	0%
DMV	1,215	0	1,215	0%
TAX	234	0	234	0%
SCHEV	32	0	32	0%
DBHDS	2,598	2,598	0	100%
DWR	544	544	0	100%
DOLI	84,409	84,409	0	100%
VDOT	36,789	36,789	0	100%

DOAV	3,463	3,463	0	100%
VMRC	3,165	3,165	0	100%
DHCD	2,422	2,422	0	100%
DFS	4,735	4,735	0	100%
DGS	335	335	0	100%
ENERGY	2,682	2,682	0	100%
LVA	123	123	0	100%
VDOE	52,093	52,093	0	100%
BOA	33,087	33,087	0	100%
VDSS	8	8	0	100%
DCR	1,154	1,154	0	100%
DHR	60	60	0	100%
DCJS	51,865	51,865	0	100%
TOTAL:	550,129	376,440	173,688	

Green = 100% fully digitized agency approvals
Light green = Nearly 100% fully digitized agency approvals
Yellow = Agency has defined plan for achieving full digitization in 2026 or later

Of the agencies with significant numbers of paper applications (VDH, DPOR, VDACS), each has a plan to achieve 100% digitization. As explained more fully below, there may be an opportunity to work with these and other agencies to build a statewide permit application dashboard (analogous to VPT), which would both simplify the application process for the public and achieve economies of scale among state agencies.

The Future

VPT opens the door to a wide array of additional reforms. Once the most important permit and license applications have been assembled in a single place, the opportunities for further improvements are virtually limitless. Here are a handful of reforms that the next administration should prioritize.

1. Building a "One-Stop Shop" for All Permits/Licenses

VPT provides never-before-seen levels of transparency with respect to the final steps of the application process: once someone has already applied for a permit, he or she can then track its progress. But the process of actually finding and completing the application is far less seamless: application materials tend to be scattered across agency websites, and some agencies still use paper-based forms or require payment via check.

At present, individual agencies are looking for ways to digitize all of their permits. But there would be considerable benefits associated with a statewide application portal (a "VPT for

Applications," if you will). The public would find it far easier to navigate the permitting/licensing process if there were a single repository for every possible application and a unified payment portal. And agencies would undoubtedly reap considerable economies of scale: the per-agency cost should be far lower if agencies pool their resources and launch a statewide portal rather than each agency's pursuing its own solution.

2. Integrating Federal and Local Permits into the Virginia Dashboard

VPT has provided extraordinary transparency with respect to the *state* permitting process. But many activities require permits at the federal and local levels, in addition to whatever state permits may be needed. Centralizing all of the relevant applications (federal, state, and local) in a single location would make life much easier for Virginia businesses and citizens.

Of course, creating such an integrated system would require the cooperation of federal and local partners. The Trump Administration recently issued a Presidential Memorandum directing federal agencies to "improve the transparency and predictability of project permitting schedules" (in addition to undertaking a variety other reforms that closely resemble those set forth in EO 39). As federal agencies pursue this goal, they may be open to working with Virginia partners to create an integrated dashboard.

Virginia ORM held a handful of meetings with local governments to discuss the possibility of integrating various local permits into VPT. There was insufficient time to carry out this initiative, but it is worth revisiting.

3. Creating an AI-Empowered Permitting/Licensing Chatbot

Using VPT, an applicant for a state permit can now track what happens once the application is submitted. But the biggest challenge is often figuring out what permits are needed to undertake a particular activity.

ORM held a variety of meetings with various AI vendors and state agencies to discuss the possibility of using an AI-empowered chatbot to direct users to relevant permit applications. AI technology holds enormous promise for creating such a chatbot but building it would be somewhat resource intensive because it is critical that the chatbot not steer users astray (e.g., tell a user he must obtain permits X and Y, when he actually needs to get permits X, Y, and Z).

ORM therefore explored the possibility of a pilot program focusing on a narrow class of permits (e.g., those required to sell food products). It was unable to launch a pilot in the time remaining. The next administration will have the opportunity to revisit such a program.

4. Launching a Statewide Permit/License Processing System (with AI-Empowered Processing Features)

Essentially every agency that issues permits or licenses maintains its own backend system for processing those applications. In many instances, agencies are spending tens of millions of dollars per year to maintain and operate these systems. As with VPT and the possible "one-stop shop" for permit applications, there are likely economies of scale associated with producing a statewide solution.

As the next administration explores the possibility of an integrated permit/license processing system, it should also consider the possibility of integrating AI tools to help process applications. At the end of the Youngkin Administration, at least two agencies (Department of Environmental Quality and Department of Education) had launched pilot programs that used AI to assess applications for completeness and identify deficiencies. AI can potentially save thousands of person-hours by conducting preliminary scans of all permit applications and directing agency staff towards those requiring additional review. Here too, Virginia could achieve economies of scale by making these tools available to all state agencies.

Leveraging Artificial Intelligence

The Challenge

Much like the internet 30 years ago, artificial intelligence (AI) technology is reshaping our society. States that find innovative ways to use this revolutionary new technology will prosper, whereas those that don't will be left behind.

Like other so-called general purpose technologies, AI affects essentially every segment of the economy. An effective approach to AI policy therefore must be implemented statewide, rather than focusing on specific problems that may emerge in certain areas.

The Solution

Authorization: Executive Orders 30 and 51

Recognizing the far-reaching implications of AI technology, Virginia was one of the very first states to issue an executive order on AI policy. Executive Order 30 does the following:

- Calls for the creation of statewide AI standards in four specific areas: Policy/Ethics, Information Technology, Education, and Law Enforcement
- Calls for the creation of an AI Task Force

- Encourages executive branch agencies to explore possible AI pilots in coordination with the Task Force

One of the pilot programs launched under EO 30 was the AI-empowered regulatory review mentioned above. When that pilot proved highly successful, Governor Youngkin issued another directive, Executive Order 51, which tasked agencies with undertaking appropriate regulatory changes in response to the pilot program and directed them to integrate AI-empowered analysis into the periodic review process moving forward.

Implementation

1. AI Standards/Guidelines

At the launch of EO 30, Virginia issued the Policy Standards, IT Standards, and Education Guidelines. It issued the Law Enforcement Model Guidelines several months later, following additional consultation with relevant stakeholders. As a result of these policies, Virginia has a far more developed set of AI policies than virtually any other state. Importantly, these policies implement appropriate guardrails to protect against misuses while ensuring that the underlying technology can develop free from burdensome government intervention.

Virginia has also launched an internal approval process by which the State Chief Information Officer, the relevant agency head, and the relevant Secretariat must approve any new use of AI. This process is designed to move quickly, avoiding unnecessary delays while ensuring that agencies are observing the guardrails and fully considering the business case for AI uses. It also provides a mechanism for spreading innovations among agencies: if one agency has identified an especially attractive use of AI, ORM, the Virginia IT Agency, or the relevant Secretariat can work with other agencies to promote more widespread adoption.

2. AI Task Force

The AI Task Force launched on October 16, 2024. Its membership includes twelve prominent individuals who either are nationally recognized AI experts or hold leadership roles in fields that are profoundly affected by AI. The Task Force held three public meetings and discussed how best to position the Commonwealth to compete in the AI space.

3. Pilot Projects

As noted above, Virginia launched the first-in-the-nation agentic AI-empowered regulatory reduction pilot. And both the Department of Environmental Quality and Department of Education have launched pilot programs to expedite the review of permit applications.

Results

Virginia's efforts to date put it out ahead of essentially every other state in the AI space. Our understanding is that Virginia is one of a handful of states to have launched comprehensive standards or guidelines in the IT, Education, and Law Enforcement spaces. Virginia was also the first state to have launched an agentic AI-empowered regulatory reduction pilot, with other states now following suit.

The AI Task Force issued a Statement detailing how Virginia can compete to win in the AI space. The full Statement appears as Appendix II. Its highlights include the following:

- Virginia should continue its nation-leading efforts to ensure that all K-12 and higher education students graduate with core competencies in the AI space.
- Virginia also should continue its efforts to ensure that members of the workforce can upskill over the course of their careers, acquiring the training necessary for advancement in a workforce in which AI will play a central role.
- Virginia should continue its "all of the above" approach to energy generation, recognizing that the growth of data centers may require expanded capacity. Virginia should also use AI to help design a smarter grid, allowing it to use existing capacity as efficiently as possible.
- Virginia's "light touch" approach to AI regulation strikes the right balance: guardrails protect against clear misuses, but the state must avoid imposing burdensome, top-down regulatory regimes that will stifle the industry in its infancy. Virginia also should continue to use AI to promote streamlined regulation, as provided in EO 51.
- Virginia agencies should continue to seek AI solutions to enhance the efficiency of their operations. AI can play an especially valuable role in helping automate routine tasks such as processing permit applications, which otherwise eat up an enormous amount of person hours and prevent employees from dedicating time to higher order tasks.

The Future

As it evolves, AI technology will continue to upend virtually every aspect of the modern economy. To compete in this space, Virginia's government must ensure that it is constantly searching for new opportunities while maintaining proper guardrails to protect against misuses. The following recommendations should help Virginia maintain its lead in the AI space.

1. <u>Continuing the Work of the AI Task Force</u>

Over the course of the last year, the AI Task Force has both provided extraordinary insight for Virginia policymakers and gained a detailed understanding of Virginia state government. The next administration should retain the Task Force, periodically appointing new members as

appropriate, and continue to convene meetings on at least a biannual basis. Doing so will help promote the goals articulated in the Task Force Statement and identify future opportunities to position Virginia as the leading state for AI development and use.

2. Using AI to Streamline Government Operations

As previously recommended, the next administration should continue Virginia's pioneering work in AI-empowered regulatory reduction under EO 51. It should build on the existing Department of Environmental Quality and Department of Education pilot programs and seek out ways to use AI to expedite permit processing and other routine tasks. It should explore ways to deploy AI-empowered chatbots to improve the permitting process as well as other citizen interactions with the government.

More generally, the administration should explore any and all ways to use AI to automate routine tasks. Our experience over the last four years has shown that agencies are often relying on very outdated approaches to any number of problems. In some cases, this has resulted in a poor allocation of resources, forcing human employees to spend their time on tasks that can be more efficiently performed by a computer. In other cases, there isn't sufficient human capacity to perform various tasks, resulting in permitting delays and other bottlenecks. AI can help alleviate or completely remedy each of these problems.

The next administration should therefore constantly ask itself "does a human need to perform this task, or is it better automated?". Appropriate use of automation should promote a far more efficient government. It should also ensure that Virginia state employees are not overburdened and are devoting their time to the most valuable tasks.

Conclusion

Virginia has established itself as the leading state for regulatory modernization. Numerous states have now adopted some aspect of Virginia's reforms or are actively exploring doing so. The Virginia model has become the gold standard that nationally recognized think tanks, state officials, and many federal officials are now striving to emulate.

Since America's founding nearly 250 years ago, the Commonwealth has always played an outsized role in promoting a well-designed government that promotes a free and prosperous society. The next administration has an extraordinary opportunity to continue this storied tradition by building on the reforms of the previous four years.

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Appendix I
Department of Housing and Community Development Regulatory Reduction Report

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REGULATORY REDUCTION REPORT: BOARD OF HOUSING AND COMMUNITY DEVELOPMENT REGULATIONS

September 25, 2024

DIVISION OF BUILDING AND FIRE REGULATION

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Executive Summary

Executive Order 19 (EO 19) requires that all executive branch agencies achieve a 25% reduction in regulatory requirements. This report is intended to outline steps taken by the Department of Housing and Community Development (DHCD) to achieve the 25% reduction required by EO 19, as it relates to regulations promulgated by the Board of Housing and Community Development (BHCD).

A count of the regulations promulgated by the BHCD, including the Virginia building and fire regulations, revealed a total number of discretionary requirements of 161,262 out of which 98.5% were determined to be critical to public health, safety and welfare.

Given the unique nature of the Virginia building and fire regulations and the overwhelming number of requirements critical to public health, safety and welfare, which are not to be eliminated per the Regulatory Reduction Guide, an alternative approach was taken.

With this approach, the focus was on quantifying the construction cost savings of a reference house derived from the Virginia amendments to the International Residential Code – the nationally recognized model code incorporated by reference in the Virginia Regulations.

An analysis of the Virginia amendments to the International Residential Code (IRC) indicates an estimated total cost savings of $24,102.09 for the reference house. The reduction in cost realized through the 2021 Virginia Building Code reduces the cost of all regulation in the price of a home by 25.7%.

The report that follows gives an overview of the regulatory requirement counting in the Virginia building and fire regulations, detailed analysis for the Virginia amendments considered to have a significant impact on reducing construction costs, as well as detailed analysis of all Virginia amendments considered to increase the cost of construction.

Background

Executive Order 19 became effective July 1, 2022, and requires a 25% reduction in regulatory requirements for executive branch agencies. EO 19 announced the creation of the Office of Regulatory Management (ORM) to oversee and ensure compliance by working with regulatory agencies to review all existing regulations.

Subsequently, ORM issued the Regulatory Reduction Guide for achieving the 25% regulatory requirement reduction under EO 19. The guide aims to answer the following questions:

- Which entities are required to reduce regulatory requirements by 25%?
- Which requirements are subject to the 25% reduction goal?
- What counts as a regulatory requirement?
- What types of actions count towards the 25% reduction goal?
- When does a reduction count towards the 25% goal?
- How does the 25% reduction goal apply to guidance documents?
- What information should be provided to show a 25% reduction?

The Virginia building and fire regulations adopted and promulgated by the Board of Housing and Community Development (BHCD) are included in the scope of EO 19.

The current edition of the Virginia building and fire regulations is the 2021 edition which became effective on January 18, 2024, following a code development process spanning roughly two years and involving over 40 public workgroup, sub-workgroup and study group meetings with participation from a vast array of interested parties from across the Commonwealth.

Model Codes

The Virginia building and fire regulations incorporate by reference nationally recognized model codes and standards such as the International Code Council's (ICC) family of codes and National Fire Protection Association (NFPA) standards, both of which are widely adopted across the United States, as well as internationally.[1] [2]

The processes for updating the national codes and standards are extensive, the timeline for which spans several years and includes multiple hearings for each code and standard.

Subject matter experts representing key industry stakeholders, such as code enforcement professionals, building owners, home builders, trade professionals, design professionals, and product manufacturers, among others, from across the United States serve on committees and participate during public hearings to provide input on and debate the merits of code change proposals.

As a matter of code development policy, code change proposals must be accompanied by a cost impact statement by the proponent indicating whether the proposal will increase the cost of construction, decrease the cost of construction, or have no impact on the cost of construction. These statements and substantiating information are scrutinized over the course of the process by peers and the public. Proposals are ultimately voted on by governmental members from across the United States with approved proposals being incorporated into the future edition of their respective codes and standards.

[1] See ICC adoption maps for an example: https://www.iccsafe.org/adoptions
[2] See NFPA 70 adoption map for an example: https://www.nfpa.org/education-and-research/electrical/nec-enforcement-maps

Virginia code professionals are heavily involved in the development processes for the national codes and standards, through service on code and standard development committees, submitting code change proposals, testifying in support and opposition to code change proposals, and networking with code professionals from across the United States, to ensure Virginia's voice continues to be heard at the national level to help mitigate any potential downstream negative impacts for the Commonwealth.

Virginia Codes

The development of Virginia building and fire regulations follows a process similar to development of the national codes and standards, whereas all the meetings are open to the public, anyone has the opportunity to submit code change proposals to amend the national model codes and standards, provide testimony, network with peers, and influence the outcome. Similar to national codes and standards, the proposals are extensively vetted during public meetings and forums by subject matter experts and representatives of interested parties, such as code officials, fire officials, home builders, affordable housing advocates, energy advocates, building owners, design professionals, manufacturers, utility companies, and more. Construction cost considerations are a key part of these discussions as each proposal is required to include a construction cost impact statement much like the national code development process.

Each individual proposal receives a recommendation from the stakeholders' workgroup and is ultimately approved or disapproved by the BHCD. Approved proposals are incorporated into the next edition of the respective Virginia Regulation.

The Virginia building and fire regulations development process strives for consensus wherever possible and is a process that is revered across the United States for its thoroughness, effectiveness, incorporating extensive stakeholder engagement and a trailblazing approach. In many instances, Virginia has looked ahead and brought forth provisions from future editions of the model codes when beneficial to Virginia. This includes the allowance of new products, which increase market competition and reduces regulatory burden or cost, such as the amendments to Section P2906.9.1.2 of the 2021 IRC and Table 1103.1 of the 2021 International Mechanical Code, both of which are based on the 2024 edition of the respective codes; or, making the provisions of certain Appendices a compliance option for permit applicants to assist with housing affordability, such as is the case with the IRC Appendix AQ – Tiny Houses.

Though certain model code requirements or Virginia amendments might appear at first glance to increase the regulatory burden, in large part, the Virginia regulations are stated in terms of required level of performance, allowing for multiple options of compliance which is in line with § 36-99, Subsection C, of the Code of Virginia. The Virginia Residential Code (VRC) takes somewhat of a different approach, which in addition to allowing for performance-based

compliance, also sets forth prescriptive provisions. The prescriptive compliance path option available in the VRC enables the code user to easily design and construct code compliant buildings and structures without the need for securing the services of a registered design professional, or a licensed contractor which is allowed in Virginia pursuant to §§ 54.1-402 and 54.1-1100 et seq. of the Code of Virginia and provides the opportunity for significant cost savings for those choosing this route.

Many Virginia building and fire regulations that might appear to increase the number of regulatory requirements, in fact, act as exceptions to other requirements, thus furthering the goal of broadening the design and construction options for users to save money wherever possible.

Regulatory Requirements in Virginia Codes

To determine the number of discretionary requirements, each section of each model code as amended by Virginia and promulgated by the BHCD was reviewed to determine (1) whether they are statutory or discretionary in nature; (2) the number of discretionary requirements; and (3) whether they are considered critical to public health, safety and welfare.

An exception to this is the Virginia Existing Building Code (VEBC) which was developed pursuant to § 36-99.01 of the Code of Virginia as an alternative to the new construction provisions set forth by the Virginia Construction Code (VCC). Thus, it is deregulatory in nature. As such, only Chapter 1 of the VEBC was reviewed for the aforementioned criteria. The number of provisions in the remaining chapters were not counted as they act as exceptions to the otherwise applicable discretionary requirements of the VCC.

In addition to counting the requirements set forth by the model codes as amended by Virginia and promulgated by the BHCD, the discretionary requirements found in the Documents Incorporated by Reference (DIBRs) were also counted. This includes DIBRs that establish parameters for design, installation, maintenance, or operation and are commonly used by the industry (designers, contractors, code enforcement professionals, etc.). It does not, however, encompass DIBRs that delineate product or testing requirements as they are developed as performance standards which promote market competition and are mostly utilized by product manufacturers to demonstrate compliance with the respective criteria.

The total number of discretionary requirements counted in each regulation that is promulgated by the BHCD is shown below in Table 1. The total number of discretionary requirements counted in each DIBR were included in the total requirement counts for the referencing regulation.

Table 1

Regulation	Discretionary Requirements	Requirements Critical to Public Health Safety and Welfare
Public Participation Guidelines (13 VAC 5-11)	2	0
Certification Standards (13 VAC 5-21)	10	0
Amusement Device Regulations (13 VAC 5-31)	8,658	8,658
Statewide Fire Prevention Code (13 VAC 5-52)	39,962	39,876
Uniform Statewide Building Code (13 VAC 5-63)	112,450	110,251
Standards for Individual and Regional Code Academies (13 VAC 5-80)	80	0
Industrialized Building Safety Regulations (13 VAC 5-91)	46	33
Manufactured Home Safety Regulations (13 VAC 5-95)	2	0
Enterprise Zone Grant Program (13 VAC 5-112)	48	0
Low-Income Housing Tax Credit (13 VAC 5-175)	4	0
Solar Energy Criteria for Tax Exemption (13 VAC 5-200)	0	0
BHCD Total Requirements	**161,262**	**158,785**

As seen in Table 1 above, the overwhelming majority of discretionary requirements are considered critical to public health, safety and welfare, and are not to be reduced as part of regulatory reduction under EO 19. In order to comply with the 25% reduction goal and maintain the requirements critical to public health, safety and welfare, a different approach was taken.

The approach utilized was identifying the overall reduction in regulatory costs resulting from the Virginia amendments to the IRC, to which the BHCD must give due regard pursuant to § 36-99, Subsection A, of the Code of Virginia.

To achieve this, each Virginia amendment to the IRC was analyzed to determine its impact on the construction cost of a reference house. The results are summarized in the *Cost Savings of 2021 VRC* section of this report.

Cost Savings of 2021 VRC

Reducing the cost burden associated with a given regulation is one of several methods identified in the Regulatory Reduction Guide of complying with the 25% regulation reduction goal. This section of the report intends to summarize the cost benefit associated with the Virginia amendments to the IRC, which serves as model code for the VRC.

Methodology

The analysis evaluates the cost benefits of a reference house constructed in compliance with the VRC relative to a similar house constructed in accordance with the unamended IRC, and uses, among other resources, the ORM Regulatory Economic Analysis Manual as guidance.

House designs and the materials and systems utilized in the construction of homes can vary greatly. In order to determine the savings that could be realized in the construction of a new house as a result of the Virginia amendments to the IRC, a "Reference House" was established for the purposes of this report.

The Reference House is intended to represent an average or typical house size and design in Virginia and is similar to house sizes and designs utilized in other cost analysis reports conducted by the National Association of Homebuilders and the Department of Energy. The Reference House is used in this report as the baseline for determining costs (increased or decreased) of the Virginia amendments to the IRC. Specific information on the Reference House is included in the Appendix.

Estimated costs were obtained primarily from RSMeans (Residential Construction, Year 2024 Quarter 2, keyed to Richmond VA); online big box retailer websites; online stores; as well as from existing code development records directly related to the respective amendment analyzed, when available. The individual analysis will cite the source used for determining the estimated cost.

Each Virginia amendment to the IRC was reviewed to determine whether it increases or decreases the construction cost. Out of those determined to reduce the construction costs, only amendments with a more significant cost decrease were further analyzed and provided with estimated costs. In addition, all amendments determined to increase the construction cost were also analyzed and provided with an estimated cost impact, where applicable.[3] [4] A

[3] For the purposes of this report the Virginia amendments were only reviewed for impact on the up-front construction costs and the potential for life-cycle savings was not analyzed.

[4] Weighted averages were not used to predict cost which due to economy of scale might vary if multiple units were constructed, such as is the case with production builders.

complete list of all Virginia amendments to the IRC with a brief description and a determination on whether they influence the construction cost is included in the Appendix.

Final Numbers

The examination of Virginia amendments to the IRC considered to have a more significant impact on the construction cost of the Reference House yields an estimated total construction cost savings of $24,102.09.

Table 2 below illustrates the cost impact of individual amendments on the reference house and the Appendix contains the individual analysis for each amendment considered.

TABLE 2

Section Number	Section Title	Brief Description	Cost Impact [a]
R302.13	Fire protection of floors.	Floor assemblies not required to be fire-resistance rated on the underside of floor framing members.	-$4,044
R311.7.5.1 and R311.7.5.2	Risers and Treads.	Increases the maximum allowed stair riser height to 8-1/4" (the IRC allows a maximum of 7-3/4"). Reduces the minimum allowed stair tread depth to 9" (the IRC requires a minimum of 10").	-$6,000
R313	Automatic fire sprinkler systems.	Sprinkler systems not required for townhouses and one- and two-family dwellings.	-$9,387
R335	Interior passage.	Requires an interior passage route to the kitchen, living area, one bedroom, and one bathroom in dwellings units when certain conditions are met.	+$15.38
R905.2.8.5	Drip edge.	Deletes the requirements for drip edge installation at eaves and gables of shingle roofs.	-$278.25
Table N1102.1.2	Maximum Assembly U-Factors and Fenestration Requirements	Maximum allowed frame wall U-factor increased to 0.079 in all Virginia CZs.	-$3,528
Table N1102.1.3	Insulation Minimum R-Values and Fenestration Requirements by Component	Minimum allowed R-value for wood frame walls lowered to 15 or 13+1ci in all Virginia CZs.	
P2602.3	Tracer wire.	Requires nonmetallic water service piping connecting to public systems to be locatable.	+$2.25
P3002.2.2	Tracer wire.	Requires nonmetallic sanitary sewer piping discharging to public systems to be locatable.	+$5.5
E3902.20	Arc-fault circuit interrupter protection.	Limits the AFCI protection requirements to areas where GFCI is not already required.	-$315

R315.1.1 R315.6	Listings. Power source.	Allows plug-in or battery type carbon monoxide alarms. IRC requires hard wired carbon monoxide alarms.	-$80.25
N1102.4.1.3	Leakage rate.	Increases the maximum allowed air leakage rate from 3 to 5 ACH.	-$492.72
Total cost savings: [b]			$24,102.09

Footnotes:

a. A negative number represents the amount of savings resulted from the Virginia amendment, and a positive number represents a cost increase. I.e. - $123 represents savings and +$123 represents a cost increase.

b. Additional cost savings are available on a case-by-case basis from Virginia amendments with low to mild impact on the construction costs and not analyzed for estimated construction cost savings for the purposes of this report.

A July 7, 2023 Congressional Research Services report indicates that regulation accounted for a total of $93,870 of the price of a new home, citing data from a National Association of Home Builders special study titled "Government Regulation in the Price of a New Home: 2021". [5] [6]

The cost savings of $24,102.09 realized through the 2021 Virginia Building Code reduces the cost burden of all regulations (building code, zoning, OSHA, etc.) in the price of a new home in Virginia by 25.7%.

In addition to the amendments included in Table 2 above which have a direct impact on the construction costs of the Reference House, the amendments below are highlighted for their impact on housing affordability across the Commonwealth as a whole.

Section R302.3, Exc. 3 (and related sections) Accessory Dwelling Units (ADUs)

The primary goal of adopting provisions for ADU's was to aid with the affordability of existing housing stock, an issue exacerbated by real estate tax increases, aging population, and other factors. ADUs provide for separate living, sleeping, eating, cooking, and sanitation facilities within single-family dwellings. These dwelling units can be rented out, which would aid with homeownership retention especially for retirees affected by the ever-increasing real estate taxes, while at the same time creating new affordable housing without the need for expensive new land acquisition and development. See the Appendix for full analysis.

[5] Congressional Research Services, "U.S. Housing Supply: Recent Trends and Policy Considerations", July 7, 2023: https://crsreports.congress.gov/product/pdf/R/R47617

[6] Paul Emrath, "Government Regulation in the Price of a New Home: 2021", NAHB, May 5, 2021: https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2021/special-study-government-regulation-in-the-price-of-a-new-home-may-2021.pdf?rev=29975254e5d5423791d6b3558881227b

Section R326.3 Habitable Attics

Virginia's amendment to what is considered a "story above grade plane" within the context of a habitable attic allows greater design flexibility for habitable attics and allows them to be constructed above a third story without requiring the installation of a fire sprinkler system throughout the home. This amendment may play a significant role in housing affordability given the popularity of building up versus out and the uptick of townhouse construction, especially in urban and metropolitan areas where the cost of land, if available, continues to rise.

The amendment is estimated to reduce the construction cost for buildings with habitable attics above the third story by an average of $1.94/sf on top of other utility related fees, or expenses related to additional equipment. See Appendix for full analysis.

Section R3336 Tiny Houses

Tiny houses constitute another type of housing that is climbing in popularity, in large part because of the affordability aspect associated with them. A survey by HomeAdvisor found that 86% of Americans would live in a tiny home, 68% would live there year-round, 68% would consider buying a tiny home as their first home, and 48% of respondents indicated that they would prefer a tiny home constructed on a permanent foundation (as supposed to 22% of responders preferring tiny homes on wheels which are not under the purview of the VRC).

The Virginia amendment to specifically allow the use of Appendix AQ of the IRC provides relief from certain code provisions, which reduces the construction costs for tiny houses while still ensuring the safety of occupants. The analysis comparing a 400 square feet VRC complying tiny house with a 400 square feet IRC complying house, indicates an estimated total construction cost savings of $3,255.38. See Appendix for full analysis.

Conclusion

The BHCD is statutorily obligated to adopt and promulgate building and fire regulations to ensure the public health, safety and welfare of the citizens and visitors of the Commonwealth. In doing so, pursuant to § 36-99 of the Code of Virginia "… *the Board shall have due regard for generally accepted standards as recommended by nationally recognized organizations, including, but not limited to, the standards of the International Code Council and the National Fire Protection Association*…"

As highlighted in this report, the nationally recognized model codes and standards incorporated by reference in the Virginia building and fire regulations give due consideration to construction costs and are further, extensively vetted by Virginia stakeholders through a transparent, thorough and inclusive code development process, which provides ample opportunity for amendments to be made to the model codes and standards.

Reducing regulatory burden has always been at the forefront of building and fire regulations development in Virginia alongside safety and housing affordability. This is illustrated by the construction cost savings generated by the Virginia amendments to the IRC spotlighted in this report which is intended to demonstrate compliance with Executive Order 19 through reduction in regulatory cost burden.

Appendix II
Commonwealth of Virginia AI Strategy

Commonwealth of Virginia AI Strategy

Executive Order 30 Task Force Report

Governor Glenn Youngkin

January 14, 2026

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Letter from the Director of the Office of Regulatory Management

Almost two years ago, Governor Youngkin was at the forefront of state governors in launching a comprehensive initiative for promoting responsible use of artificial intelligence (AI). His vision has proven prophetic. Since then, the use of AI in both government and the private sector has exploded. It has opened extraordinary opportunities even as it has created risks, including the very real challenges it poses in the realm of child safety.

A major component of the Governor's AI strategy was launching a Task Force to help inform the Commonwealth's work. Launched in 2024, that Task Force included some of the most prominent individuals working in the AI space. It also included experts from the fields most likely to be affected by AI, including education, law enforcement, and workforce development. It held multiple meetings over the course of 2024 and 2025 and grappled with all the key issues associated with the rapid rise of AI.

At the conclusion of its work, the Task Force has prepared a comprehensive Statement that summarizes its findings and recommendations. This Statement recognizes the extraordinary work that Virginia has already accomplished in the AI space. Virginia K-12 schools and higher education institutions lead the nation in providing students with age-appropriate training on AI. Virginia has partnered with Google to provide upskilling for individuals in the workforce. And Virginia launched an innovative agentic-AI-driven pilot program to help streamline regulatory burdens.

The Task Force Statement also offers concrete recommendations for ensuring that Virginia maintains its lead in the AI space. It identifies strategies to ensure that both students and current members of the workforce possess the skillsets necessary to compete in a workplace in which AI is ubiquitous. It offers recommendations on optimizing power usage and development to ensure that rapidly expanding energy demands can be met. It counsels against stifling AI development by imposing onerous regulatory restrictions while acknowledging the need to protect against misuses, especially those that threaten child safety. And it urges state agencies to utilize AI to enhance efficiency and accomplish more with existing resources.

I want to commend the AI Task Force for its extraordinary work. It is my hope that this work will set a precedent for ongoing collaboration between state government and private sector experts. And I want to thank Governor Youngkin for his vision in convening the Task Force and entrusting it with this important mission. It has been a great privilege to work with this extraordinarily talented and professional group of people, and I am excited to see this Statement serve as the blueprint for Virginia's continued success in the AI space in years to come.

Sincerely,

Reeve T. Bull
Director of the Office of Regulatory Management

Appointees to the Virginia AI Task Force

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Bill Cleveland
Former Vice Mayor of Alexandria, VA
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Commonwealth of Virginia AI Strategy

Executive Order 30 Task Force Report

Governor Youngkin's Artificial Intelligence (AI) Task Force represents a wide and bipartisan range of perspectives and professional backgrounds. Each member has extensive experience working in a sector that has already been or is poised to be profoundly affected by the growth of AI. And each shares Governor Youngkin's vision for positioning the Commonwealth of Virginia to lead the nation in exploiting the full range of opportunities this exciting new technology makes available while maintaining appropriate guardrails.

Virginia is poised to be the leading state to take advantage of the economic opportunities generated by responsible growth and the use of AI technologies. Throughout the Task Force's work, members discussed strategies to ensure that Virginia builds on its existing strengths and continues to compete for these new opportunities. Already, Virginia has the largest concentration of data centers in the world, sponsors cutting-edge AI research in its world-renowned universities, and continues to attract tech talent across a wide range of industries. The Commonwealth also serves as home to some of our nation's most critical defense and intelligence agencies, including the headquarters of the Department of War, the Central Intelligence Agency, the National Reconnaissance Office, and the National Geospatial Intelligence Agency, just to name a few, as well as a growing technology startup and investment ecosystem that includes some of the most innovative companies in the nation working on dual-use technologies for government and industry customers.

Those who have a strong academic foundation combined with analytical and application skills will be able to use AI to promote efficiency; those who lack that foundation are destined to be locked out of future opportunities. Virginia K-12 schools have recently implemented computer science *Standards of Learning*, which address AI applications that are fast becoming the model nationwide. Higher education institutions have likewise integrated AI into degree programs and work-based learning opportunities to ensure all graduates in the Commonwealth are prepared for a career in this quickly changing world.

Virginia has also wisely avoided saddling the AI industry with regulatory burdens that would stifle its growth while using AI to help identify opportunities to further streamline and modernize regulations. At the same time, Virginia recognizes that targeted interventions may be necessary in areas in which existing law does not provide sufficient protection. Executive Order 30 adopts appropriate guardrails to protect against misuse of state-owned data and other possible abuses, and it ensures that a human being reviews any AI outputs and makes the final decision. Virginia also recognizes that children may be at particular risk when it comes to new technologies and is actively exploring ways to ensure

that children are not placed at risk and receive proper education on the promises and dangers of AI technology.

Virginia's AI Policy Standards must emphasize safe, responsible, and ethical use of AI across state government and public services, including education. The standards should promote AI-enabled learning while enforcing strong privacy protections, clear human oversight, and robust safeguards to protect minors. Agencies must implement transparent standards for the development, deployment, and ongoing monitoring of AI tools. Improvements in efficiency and innovation must not compromise student privacy or child safety. The framework should harness AI's benefits for society and students, while applying guardrails that mitigate risks to children.

For Virginia to continue winning in the AI space, it must build on these strengths. It must:

- Continue preparing its K-12 and higher education students with the skills required to compete in a workplace and society in which AI will be ubiquitous.

- Promote business investments to create opportunities for current members of the workforce to upskill throughout their working lives, providing ready access to the training and credentialing resources that will be necessary as the nature of employment constantly evolves.

- Plan for the effects that AI will have on the power grid, including both allowing for more efficient use of existing energy sources and increasing energy demand as AI use becomes ever more widespread.

- Continue to create an ecosystem in which both large and small businesses can thrive, which includes both creating a robust economic development framework (focusing especially on cutting-edge technologies, including those in the national security domain) and avoiding unnecessary legal or regulatory burdens that will disadvantage start-up firms and slow economic growth.

- Ensure that state government agencies use AI responsibly and utilize its potential to enhance government efficiency and to drive economic growth across the Commonwealth.

Though Virginia enjoys numerous built-in advantages that could attract and retain technology companies and talent, it must double down on these advantages and accelerate its efforts if it is to maintain and build on this enviable position. In this spirit, the Task Force offers a series of recommendations that will help ensure that Virginia—and our nation—continues to win the race for AI dominance.

Education

In January 2024, Governor Glenn Youngkin issued Executive Order 30, which directed the development of the nation-leading *Guidelines for AI Integration Throughout Education* ("the Guidelines"). These guidelines, as Task Force Member John Bailey described in congressional testimony, set standards "for responsibly integrating AI in education, focusing on ethical use, data privacy, and workforce readiness." Through the release of the Guidelines, the Commonwealth became one of the first states in the country to develop a strategic plan for the educational use of AI from K-12 to postsecondary education.

Building on that foundation, the Commonwealth has continued to promote thoughtful exploration of new AI tools, expand professional development, and educate students and teachers in best practices in the classroom and prepare them for the workforce of the future. Artificial intelligence is poised to revolutionize education in Virginia by transforming how students learn, how teachers teach, and how schools operate. The Task Force firmly believes that AI is not a threat to education, but an opportunity to be leveraged in the Commonwealth. AI fosters student creativity by enabling learners to design, build, and express ideas through generative tools and personalized exploration. Students across the Commonwealth are already using AI to simulate speakers in world language classes and receive real-time feedback on writing and design projects. These tools empower students to become creators of knowledge, not just consumers.

AI also allows for the creation of individualized lesson plans that adapt content and pacing to meet each student's unique needs and learning style. Teachers are leveraging AI to generate differentiated activities on demand, curate reading passages for English learners, and provide one-on-one tutoring experiences through intelligent agents—all aligned to Virginia's *Standards of Learning*. Additionally, AI greatly expands teachers' ability to accomplish more in less time by automating administrative tasks, generating instructional materials, and providing real-time insights—freeing up time for deeper student engagement.

At the same time, students must continue to develop reasoning skills and other core competencies and must not over-rely on AI in a way that diminishes these critical abilities. AI also can increase students' exposure to the risks that have arisen in the online space, including harmful materials and online predators. It is therefore incumbent on educational institutions to ensure that any classroom AI involves a balanced approach, drawing on AI's strengths while also recognizing its limitations and risks.

Every example of AI being used to enhance learning practices follows the Guidelines' suggestions to provide oversight, maintain proper use, and ensure integrity. As a further safeguard, the Virginia Department of Education (VDOE), the State Council of Higher Education in Virginia (SCHEV), and other key stakeholders will continue to collaborate to protect data and develop micro-credentials that validate competence in this emerging technology, further preparing Virginia for the future.

What We Have Accomplished

Over the course of Governor Youngkin's administration, Virginia has moved from conceptualizing the academic applications of AI to putting them to work. Our divisions have central support, educators are receiving training, and local policies are being developed with state guidance. Higher education institutions are also leveraging AI on campuses across the state to aid in classroom and work-based learning.

- **K-12 Initiatives**
    - **Generative AI Year of Learning**
      The Virginia Association of School Superintendents (VASS), in partnership with VDOE and Advanced Learning Partnerships (ALP), supported 75 Virginia school systems in developing comprehensive support for Generative AI integration. This program included four in-person training sessions for each regional group and features an accompanying website designed to facilitate ongoing resource-sharing and collaboration among educators.
    - **Instructional Technology Resource Teachers (ITRTs)**
      VDOE is providing instruction resources to divisions to facilitate the training of additional ITRTs. Serving as co-educators of students, coaches for teachers, resources for leaders, and community advocates, ITRTs empower all learners to develop the skills and mindset needed to succeed in an increasingly digital society through supporting lesson planning and promoting informed access to AI tools.
    - **Developed Resources on Responsible AI Uses**
      VDOE has issued model policies covering acceptable use, data privacy, and internet safety. It has also created instructional resources and leadership programs in partnership with community colleges.

- **Lab Schools**
  The Commonwealth's 15 College Partnership Lab Schools are designed to bring innovation directly into K–12 education by leveraging the expertise and resources of higher education institutions. Schools like the Academy of Technology and Innovation; Shenandoah Valley Data Science, Computing, and Applications Lab School; ACCESS Academy; and SmithTECH are playing a pivotal role in strengthening Virginia's AI talent pipeline.

- **Higher Education Efforts**

  - **AI in Education Summit at George Mason University (GMU)**
    SCHEV supported a summit at GMU on developing a path forward for the future of artificial intelligence in education across K-12, junior colleges, community colleges, and 4-year institutions.

  - **Development of Reference Guide on Integrating AI into Virginia Education**
    The AI in Education Summit culminated in SCHEV's release of a reference guide, authored by Dr. Amarda Shehu and Dr. Padhu Seshaiyer of George Mason University, with considerations for an institution's approach to integrating Artificial Intelligence.

  - **AI Implementation**
    A range of current efforts to integrate AI into instruction are pervasive across Virginia's public and private institutions of higher education, including simulations of highly technical training, work-based learning opportunities for undergraduate and graduate students, and the development of AI fluency in the curriculum. For example, Hampton University now has a Bachelor of Science in Computer Science with Artificial Intelligence and Machine Learning degree program, with most departments systematically infusing the use of AI into their teaching pedagogy and curricula across the campus. Another example is the UVA School of Nursing's use of generative AI to create customized clinical simulations and scenario-based learning that mirror real clinical unpredictability.

Moving Forward

Moving forward, Virginia must ensure that AI serves as a tool to enhance teaching, personalize learning, and prepare students for the workforce while safeguarding against its risks. To fully realize the benefits of artificial intelligence and ensure Virginia's students are prepared for the changes AI will bring, the Commonwealth must ensure that every student has strong academic knowledge in core subjects such as reading and math, as well as robust analytic and communication skills. AI is a powerful tool, but it is rendered meaningless to the students without the knowledge and skills to use it appropriately and to understand the risks of misuse. Therefore, AI's role in the future of Virginia's Education system must be centered on goals such as:

- **Committing to Rigorous Academic Standards and Accountability**
  Virginia should continue to raise expectations for student learning by promoting high academic standards and accountability for results. Reinforcing the virtues of high expectations throughout education will equip students with the skills to use AI, not be displaced by it. This will ensure that students will develop critical reasoning skills and not come to over-rely on AI.

- **Increasing Baseline AI Literacy for Students and Educators**
  Build flexible, developmentally appropriate learning pathways by launching teacher and student-facing micro-courses, scenario-based professional learning modules, and role-specific training courses. Among other things, this should include cultivating the ability to recognize false information produced by generative AI.

- **Encouraging Local Ownership of Policies**
  VDOE encourages local school divisions to develop their own policies concerning artificial intelligence, supported by shared examples and guidance from the state, especially on internet safety and acceptable use.

- **Spotlighting Successful AI Use Cases**
  K-12 and higher education stakeholders should continue fostering a collaborative community that includes business leaders, educators, governing members, leaders, and families. This community should share successful stories of AI implementation in learning environments to motivate the adoption of best practices.

- **Increasing Community Engagement**
  The Commonwealth is exploring ways to include families and communities in transparent, ongoing dialogue about the role of AI in schools. Blue Ridge PBS is supporting this effort by creating resources that help families navigate and better understand AI in education.

- **Building a Robust Talent Pipeline**
  VDOE and SCHEV are coordinating with institutions to align dual-enrollment, community college certificates, and four-year programs to AI-enabled fields to ensure K-12 education pathways more seamlessly integrate with the Commonwealth's higher educational institutions.

Workforce Development

AI is revolutionizing the workforce, presenting both challenges and opportunities. The primary challenge is that Virginia's workforce — both those currently employed and those seeking new or next careers — will need to continually upskill to ensure they continue to provide value beyond routine functions that can be automated.

AI also offers numerous opportunities in the workforce space, including: (a) expanding access to ongoing professional education; (b) assisting humans in matching workers with jobs and screening large applicant pools; and (c) supporting the growth of the "gig economy."

To address these challenges and take advantage of new opportunities, Virginia Works has partnered with Google, the Virginia Economic Development Partnership (VEDP), and Virginia universities to provide an upskilling portal on the "Virginia Has Jobs" website, which includes the free Google AI Essentials and Prompting Essentials certifications. The Commonwealth's new AI learning and career development landing page, hosted on the Virginia Has Jobs website and designed by Virginia Works, is a one-stop hub designed to help working-age Virginians understand, explore, and prepare for the growing role of artificial intelligence across a wide range of jobs and skills. The platform supports both job seekers and current workers, from those just beginning to explore AI and how it can be used in their work to those pursuing AI-centric or tech-forward career pivots. The site features curated no-cost and low-cost learning opportunities, including beginner-friendly courses on AI fundamentals and practical workplace applications of artificial intelligence. It also highlights trusted industry credentials, Virginia-based training providers, and pathways to careers where AI skills are increasingly valuable.

Going forward, Virginia Works' strategy is to build the nation's Top State for Talent. The plan incorporates four "moonshot" goals, with one specifically focused on AI and emerging technology: building a future-ready Virginia workforce. By 2030, the Task Force envisions that Virginia will have the most AI-ready and digital and human-skills proficient workforce in the country, with every working-age Virginian receiving at least foundational upskilling.

Specific components of this goal include:

1. Launching and communicating low-barrier-to-entry upskilling opportunities on AI and digital literacy.

2. Collaborating with employers to develop programs tailored for employee upskilling.

3. Integrating AI literacy into K-12 education to prepare future generations from an early age, as outlined above.

The metrics and outcomes that will be used to measure this goal include:

1. The number of workforce development programs that have integrated AI/Digital Upskilling into content.

2. The number of individuals receiving digital literacy training through Virginia's American Job Centers.

3. The number of employers partnered with state agencies on digital skills curriculum development.

4. The number of employers receiving incentives for investing in employee upskilling, and the total monetary value of any such incentives.

5. The number of K-12 schools/districts that integrate AI literacy into the curriculum.

Energy Infrastructure

At present, there are many unknowns regarding the interrelationship between expanded AI use and energy supply. While AI will provide insights for building and maintaining a power grid that optimizes the use of existing energy sources and allows new sources to be deployed strategically, heightened demand for computational resources will lead to increased energy demand. The precise dimensions of these trends remain to be seen, but the use of AI is driving capital investment in both power generation and transmission infrastructure in the short-term. If current consumption trends continue, it will significantly increase demands on the regional power-grid.

In that light, it is critical for state government to support research and development of emerging technologies that could use AI to improve efficiencies at power generation and transmission facilities. State leaders must identify opportunities to maintain power system resource adequacy in a developing AI landscape through both existing and innovative technologies. The Task Force recommends that the Commonwealth pursue the following initiatives to ensure that the energy supply is sufficient to allow Virginia to maintain and build on its lead in the AI arena:

1. Expanding partnerships with energy providers. Data center operators are already working directly with utilities to seek innovative ways to finance and locate new generation. State agencies should ensure effective management of large load onboarding and capacity expansion at the utility and regional transmission operator (RTO) level.

2. Locating data centers close to energy sources and transmission capacity. This could include behind-the-meter and/or co-located facilities that would directly serve data centers and reduce grid stress. The Commonwealth must prioritize net-new generation capacity to ensure citizens do not face increased costs of electricity. State agencies should prepare and promote sites with existing infrastructure or access to utilities with more available capacity. At present, there are several suitable sites in South and Southwest Virginia.

3. Using AI to build a “smarter” grid. While AI requires energy to operate, it is also a valuable tool that can be employed to identify efficiencies in the development, deployment, and use of energy resources.

4. Empowering the State Corporation Commission (SCC) and collaborating with the Federal Energy Regulatory Commission (FERC) and, crucially, localities to streamline and prioritize new generation and transmission project approvals. The state government must ensure that the regulatory regime these agencies oversee is not imposing unreasonable burdens while ensuring health and safety. Additionally, state agencies should fast-track grid-enhancing technologies, such as upgrading existing lines with higher-capacity advanced conductors.

Designing a Legal Framework That Promotes Economic Growth

An oft-overlooked aspect of fostering technological growth is ensuring a supportive legal environment that drives economic expansion. Businesses benefit from a pro-growth legal and economic environment and from opportunities provided by government incentives and contracts. In addition, ensuring that the Commonwealth is focused on economic growth and limiting overregulation, while also ensuring that it provides incentives to align private industry's goals with the Commonwealth's desire for trusted, safe, and secure AI capabilities, as well as a fair business climate, will provide the type of certainty that businesses crave.

The reality is that in a rapidly evolving industry like AI (as well as other high-tech industries), overregulation could easily kill off promising innovation in its infancy. One needs only look at Europe and other jurisdictions that seek to regulate early and often to see what happens to innovation and investment rates.

This is not to say that protections are not necessary to ensure that AI technology is not misused, especially when it comes to ensuring child safety. Indeed, Executive Order 30 emphasized the need for guardrails to ensure that new technology does not undermine important health and safety objectives. To the extent that there are gaps in existing legal protections, targeted regulatory changes may be appropriate to promote public welfare.

The Commonwealth should move aggressively to attract and build more start-ups and small businesses, and the venture capital investment that drives them, particularly in the national security domain, where Virginia is already a leader. The growth of these start-ups and small businesses, however, can be stifled by an overly complex or burdensome regulatory climate. Indeed, regulatory hurdles that may be a nuisance for large firms can act as a near-complete barrier to entry for small firms, crushing innovation and driving out market competition.

Virginia has wisely avoided the "regulate first, ask questions later" approach that has characterized the government's approach to AI technology in several jurisdictions, including the European Union. As Virginia considers whether and how to regulate in the AI space, it should bear the following principles in mind:

1. The core governing principle regarding AI and other emerging technologies in the Commonwealth ought to be energizing, accelerating, and expanding the innovation happening in Virginia, not constraining it with added regulations and restrictions.

2. There are significant reasons already present in the marketplace today—for both investors and innovators alike—to prioritize the trust, safety, and security capabilities of AI systems, including the desire of such market players to expand and retain market traction, which is enhanced by such capabilities. To achieve the goals desired by the citizens of the Commonwealth, incentives may be needed to accelerate and prioritize these efforts.

3. Existing laws already protect against most societal concerns that might potentially be associated with AI use. Civil rights laws, privacy laws, consumer protection laws, intellectual property laws, prohibitions against defamation, child protection laws, libel laws, and various other preexisting statutes and regulations at the federal, state, and local levels provide remedies for most misuses of AI technology. Prior to passing any new law or creating new regulations, legislators and regulators should ask what gap, if any, exists in the current legal framework. Any new legal regime or regulation should be narrowly designed to fill that gap and take significant care to avoid negative impacts on innovation and economic growth in the Commonwealth. At the same time, regulators should be mindful of the fact that children may be at particular risk from misuse of AI and should ensure that proper protections exist.

4. There are also many approaches to addressing most potential risks associated with AI that do not involve government intervention. For example, private standard-setting and credentialing bodies serve the valuable role of establishing voluntary rules that companies choose to comply with to signal to consumers that they offer trustworthy, high-quality products. These regimes can be leveraged and adopted by the Commonwealth for those companies that wish to serve as state contractors. Similarly, universities and other research institutions can study the possible pitfalls of frontier technologies and issue reports outlining risk-mitigation strategies, including the use of market-based incentives as a primary approach. Legislators and government agencies should consider regulatory intervention only when non-regulatory approaches are demonstrably insufficient.

5. Effective regulation should empower citizens and businesses to make good decisions rather than limiting their options. One of the most effective regulatory approaches involves information disclosure. For example, citizens should be made aware of whether and how AI was used in reaching a decision that affects them. This allows businesses and individuals to factor any limitations involved in AI decision-making into how they use the information produced and decide which functions are and are not appropriate for assigning to AI.

6. Almost all the attention surrounding AI regulatory topics to date has focused on whether and how to regulate AI. But AI itself can shape regulation. It can help businesses and citizens process dense regulatory text more quickly and effectively, and it can help the government rationalize and streamline existing regulations. Virginia has already streamlined 35% of regulatory requirements and saved Virginia citizens over $1.4B per year, but there is still work to be done. As directed by Executive Order 51, Virginia agencies should continue using AI to periodically and consistently review existing regulations and guidance documents and determine how they should be streamlined to drive economic growth. Agencies should also use AI tools to explore different regulatory options, assess the costs and benefits of different regulatory approaches, and write regulations and guidance documents in the clearest, least burdensome way that both protects our citizens and creates more economic opportunities.

AI Use in State Government

Under Executive Order 30, the Virginia Information Technologies Agency (VITA) has developed an internal policy that, among other things, implements a centralized system for registering, analyzing, and approving new AI uses. In addition, the existing cyber-security policies and procedures are aligned with protections necessary to ensure the integrity and responsible use of AI in state government. This allows the Commonwealth to ensure data security and privacy, protect against possible misuses (including those involving bias), and combat the siloing inherent in an agency-by-agency approach to deploying new technology.

The Commonwealth has taken a flexible approach to address special situations such as the use of AI for research or teaching purposes within Virginia's higher educational institutions. For example, universities researching AI need the latitude to freely operate. Students and teachers who are increasingly using AI in the classroom need to balance use of technology with creative expression and original work.

VITA has strongly encouraged the exploration of AI through training, industry demonstrations, proofs of concept, and pilot applications. To date, over 120 use cases of artificial intelligence are being studied or applied throughout the Commonwealth for capabilities such as machine learning-enabled translation, cybersecurity, business process optimization, and enterprise search. Commonwealth websites are using AI to automatically translate websites for non-English speaking citizens, and many agencies are using AI to accelerate transaction processing for permits and claims. The Commonwealth also issued model guidelines for law enforcement in Virginia, drawing from pre-existing applications and pilots at the local and state level to explore use cases and guardrails. In each of these initiatives, the Commonwealth has emphasized that a human being must be responsible for any decision that is made. AI can supplement human capabilities in many important respects and is an extraordinarily powerful tool for compiling and processing information, but a human must carefully review any outputs and decide how they should be used.

Moving forward, the Commonwealth needs to continue leaning into the use of AI while updating the internal approval framework to ensure that state agencies are making optimal use of AI. As more use cases of AI are approved, enterprise patterns will emerge that will allow the Commonwealth to leverage pre-existing AI tools and technologies more quickly and efficiently.