

## Running on Empty: Funding our Interstates for National Security

by

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USAWC STRATEGY RESEARCH PROJECT

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## **Abstract**

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## **Running on Empty: Funding our Interstates for National Security**

Every serious study in recent years has concluded that America is under-investing in highway infrastructure; indeed, we are not even investing enough to maintain its current mediocre performance and condition, let alone enough to produce major improvements.

—Robert Poole<sup>1</sup>

America's ability to attain its objectives in an environment shifting to a multi-polar reality has never been more complex. Global influence remains ever crucial for executing our foreign policy, engaging crises, maintaining strategic legitimacy and defending our interests. At the core of these abilities, two vital instruments of national power will be of increasing importance: economic resilience and the capability to project military power decisively in the 21st Century strategic environment. Reliance on an infrastructure system in rapid decline, namely our domestic roadways, hampers our competitive edge in both arenas and dramatically reduces navigable options for protecting our interests. To mitigate this growing risk, investment in our highways and funding reform is urgently required to stem the potential for losing relevance in global affairs.

The Dwight D. Eisenhower System of Interstate and Defense Highways (SIDH) impacts every American's daily life, having become such an integral part of our lives that we have grown perilously unmindful of its influence. Nearly 48,000 miles of standardized highways connect the U.S. and serve as the backbone for our economic vitality and means of military mobilization. Unequaled anywhere in the world, the system is indicative of our expansionist ideals and national unity. However, they also represent our aptness for ignoring that which we take for granted. By not re-investing in this

engineering marvel, our ability to continue to build upon previous successes is rapidly, and dangerously, dwindling.

### Vision to Reality

The roots of today's system stem from our country's infancy; the desire to grow as a nation and the need to unite our resources was quickly realized. President Washington knew that expanding required connectivity. If not, foreign markets would prosper from economic gains made domestically. In 1784, he declared that the new nation must "Open a wide door, and make a smooth way for the produce of that Country to pass to our Markets before the trade may get into another channel."<sup>2</sup> In essence, he was referring to the need to connect the population centers on eastern seaboard with the rich resources of the territories west of the Appalachian Mountains. Thus, the first federally funded highway was conceived. It would take over 50 years to complete, but the 600-mile route connected six states from the Atlantic Ocean to the Mississippi Valley. What became the "National Road" would serve as the foundation for America to begin the daunting task of building the nation.<sup>3</sup>

For the next 170 years, various efforts to markedly build upon the notion of an interstate system would be stymied, ironically, by all that the nation espoused, independence. The inability to agree on a shared funding principal continuously threatened to demise the system we know today. What was needed was effective leadership that could convey the vision and interpret the importance for all stakeholders. That man would be our 34<sup>th</sup> President, Dwight D. Eisenhower.

### Eisenhower: The Power of Roads and National Strength

Eisenhower brought to his administration a true appreciation of what roads can do. As a young Army Officer, he traveled the country in 1919 as part of an Army convoy

to test the conditions of the nation's defensive network.<sup>4</sup> On that mission, he witnessed how the lack of care quickly reduced the current roads into being virtually untenable as a mobilizing enabler. He took this experience with him to the Panama Canal Zone in 1922 and quickly supervised the construction of roads to protect that national asset from attack.<sup>5</sup> In 1925 he graduated first in his class at the Army's Command and General Staff College due to his unique understanding of how to mobilize and deploy armies, coordinated predominantly over networks of roads.<sup>6</sup>

But his capstone experience with the power of highways would come during his tenure as the Supreme Commander Allied Forces in Europe in 1944 and 1945. Eisenhower's impression with the Third Reich's Reichsautobahn would influence him throughout his presidency, and enable him to convey the potential towards aligning interests in building a similar system at home. The Reichsautobahn started out as a way for Germany to provide jobs and stimulate its economy, most notably in connecting rural areas and stimulating suburban growth for Germany's working class. Adolph Hitler realized the mobilizing ability in 1933 and he took over the program for military purposes.<sup>7</sup>

It was on these very highways that the Allies chased down the Germans and forced an unconditional surrender in the face of overwhelming massed combat power. The Allied Army was in amazement at what the Reichsautobahn enabled them to do. So much so that one of the first items on Eisenhower's agenda was ordering an investigation on what it took to fund and build the Reichsautobahn. As he recalled later, "After seeing the Autobahns of modern Germany, and knowing the asset those highways were to the Germans, I decided, as President, to put an emphasis on this kind

of road building. The old convoy had started me thinking about good, two-lane highways, but Germany had made me see the wisdom of broader ribbons across the land.”<sup>8</sup>

### Original Funding Principals

To understand how President Eisenhower’s vision became a funded reality, it is important to understand the historical context of his achievement. Although President Eisenhower is deservedly accredited for the growth and success of the SIDH, the political groundwork had been laid as early as the 1930s. However, a quick review of historical challenges will shed light on the system’s contemporary nemesis. Political polarization, local agendas, lobbying groups and a citizenry opposed to increased taxes all had to be sold on the benefits of the system. Today, it seems, the fiscal issues with re-investing and expanding the system are as daunting today as they were then.

#### Roosevelt’s Political Foundation

Because of the Great Depression, the notion of an integrated highway system piqued the interest of President Roosevelt. He was stimulated by the idea of how such a system could provide jobs in that time of great need, not only for construction workers but also as a premise for growth of the economy as a whole. With his direction, Congress passed the first legislation dedicated to the vision in 1938. The Federal Highway Act (FHWA) of 1938 directed the chief of the Bureau of Public Roads (BPR) to study the feasibility of a six-route toll network.<sup>9</sup> In 1939, the BPR released a two-part report that studied the feasibility of constructing and funding both toll and free roads utilizing surveys previously completed by states.<sup>10</sup>

On April 27, 1939 President Roosevelt communicated the findings of the report to Congress, recommending action on: “a special system of direct interregional highways,

with all necessary connections through and around cities, designed to meet the requirements of the national defense and the needs of a growing peacetime traffic of longer range.”<sup>11</sup>

Unfortunately, due to the combined factors of the President’s political opponents and the fact that the country was on the verge of World War II, the initiative failed to gain traction. But this did not stop Roosevelt. A visionary himself, he recognized that the economy would grow because of the war. However, he was fearful of regressing back into a depression after the war if the foundation to sustain economic gains provided by the war effort weren’t laid. He was convinced a major highway program would be the answer. In that vein, he appointed the National Interregional Highway Committee (NIHC) on April 19, 1941 to continue investigating the viability of a limited system of national highways.<sup>12</sup>

The committee’s report, entitled “Interregional Highways” was released on January 14, 1943 and refined concepts produced by the earlier BPR report. In summary, it recommended an interregional highway system consisting of 39,000 miles designed to accommodate the growth in traffic projected in the mid 1960s.<sup>13</sup>

As the NIHC began soliciting measures to incorporate their findings into action, it was apparent that the federal government would have to maintain the lead for the project. Accordingly, they began work on the first Federal-Aid Highway Act (FAHA), with the intent for Congress to pass it in 1944. Almost immediately, they met both political and state resistances that would influence the process throughout its course.

#### Stakeholder Interests and Conflict

Urban and rural jurisdictions possessed varying interests and states wanted more autonomy from the federal level. The inability to achieve consensus resulted in the

FAHA of 1944 being virtually ineffective. However, in Section 7 of the Act, it was legislated that 40,300 miles of a “National System of Interstate Highways” be selected in unison with state highway departments so as to “...connect by routes, as direct as practicable, the principal metropolitan areas, cities, and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico.”<sup>14</sup>

While the act was the first to authorize the interstate system, it did not authorize federal funding or mandate a federal obligation to construct the system.<sup>15</sup> But what it did do was initiate efforts by the Public Roads Administration (PRA, formerly the BPR) to start working with states in planning and prioritizing routes in conjunction with the American Association of State Highway Officials (AASHO).<sup>16</sup>

For the next 6 years, the same disagreements continued to stall meaningful progress. Additionally, many states refused to divert federal funds from local needs and conflict over design and standards resonated. When American involvement in the Korean War began in 1950, attention again swayed from prioritizing the interstate system.

Further legislation wasn't enacted again until the FAHA of 1952 was signed, although it only authorized \$25 million for the system with the provision of funds being split 50-50 with states. Although this was the first legislation authorizing federal funds, it was minimal and indicative of the disagreements between all the stakeholders.<sup>17</sup> What was needed was a unifying vision, and leadership to enact it. That is exactly what President Eisenhower brought to the issue when he came into office in January 1953.

## Eisenhower's Leadership and Aligning Strategy

When President Eisenhower took office, \$955 million had been spent on 6200 miles of highways deemed part of the interstate system, with only 24 percent of them deemed adequate for current needs.<sup>18</sup> Obviously, the system envisioned by the NIHC in 1941 was in need of serious attention for it to become reality. After his first year in office, which was pre-occupied with the Korean War and post-war economic issues, Eisenhower made his intentions clear in his January 1954 State of the Union address by stating a highway system was important to “protect the vital interest of every citizen in a safe and adequate highway system.”<sup>19</sup>

Soon after, Congress signed the FAHA of 1954, but due to the same deep-rooted inconsistencies in all the stakeholder's visions, it didn't accomplish much. Congress appeared more concerned with balancing competing interests as opposed to passing a meaningful bill. Instead, they increased all federally funded programs, dividing federal interstate funding (of \$175 million) equally as a compromise between states with greater populations and those requiring more distance.<sup>20</sup> While Eisenhower heeded the bill as important, he wanted a holistic approach to get all sides to buy into his vision. This, he knew, would require a grander strategy that consisted of greater federal-state cooperation and a self-liquidating financial plan to avoid debt. Additionally, he had to align all the competing interests who thought their input into the system was inequitable. The automobile, tire, and trucking industries had to be aligned with interests of rural and urban taxpayers to enlighten the benefits to all.

To accomplish this, Eisenhower placed his trust in retired General Lucius D. Clay, an engineer and long time friend, to develop a mechanism for financing this grand plan. Thus, Clay and his associates (who became known as the Clay Committee)<sup>21</sup>

spent the next 18 months aligning interests and seeking compromise between state's governors, and senators and representatives, to include the lobbying groups that influenced them. The fruits of their labor were represented in the FAHA of 1956 signed on June 2 1956. It possessed features that states wanted, senators and representatives demanded, and interest groups valued. Provisions from both parties were heeded to and it passed with sweeping majorities in both houses.

The bill increased the interstate system to 41,000 miles and authorized \$25 billion in federal funds annually through 1969, of which federal funds would account for 90 percent with states taking up the rest. It apportioned monies by land area and population through 1960, and then based future funding on a cost to complete basis. It also provided uniform standards and numbering systems, as well as allowing states to implement tolls if these standards were adhered to.

The mechanism at the heart of the bill was imposed through a series of highway user taxes, an increased share of federal gas taxes, and crediting future revenue from these taxes to the Federal Highway Trust Fund (HTF).<sup>22</sup>

The FAHA of 1956, for which he fought so hard for, is considered by many to be President Eisenhower's landmark bill. In his memoirs the President remarked: "More than any single action by the government since the end of the war, this one would change the face of America. ... Its impact on the American economy - the jobs it would produce in manufacturing and construction, the rural areas it would open up - was beyond calculation."<sup>23</sup>

The foundation for unprecedented economic growth along with the ability to mobilize the world's most powerful military had been set. What that would mean, and how the nation would come to depend on it, was to be seen.

#### The SIDH's Role in the Nation's Economic Growth

The impact the SIDH has had on our economy is undeniable. Utilizing 2012 dollars, just prior to the 1956 FAHA being signed, the 1955 U.S. Gross Domestic Product (GDP) dollars was \$414.7 billion, today it is well over \$16000.0 billion.<sup>24</sup> This is nearly double the GDP of China, our closest economic competitor, and we remain the only country in the world with such a system.<sup>25</sup>

At the heart of this economic power is the flexibly efficient means in which the SIDH moves freight. True to Washington's vision in 1784, today's trucking industry provides a direct lineage from his era's Conestoga wagons. America's highways, which replaced yesteryear's rivers of commerce and enabled a flourishing trucking industry, are at the heart of her claim to the most efficient economy in the world.

In an era where the 21<sup>st</sup> Century strategic environment presents an ever-growing dependence on globalization, maintaining and improving on this capability is essential to remain competitive.<sup>26</sup> Our economic power resides in the fact that roughly 28 percent of our GDP depends on international trade, making us the world's largest trading nation.<sup>27</sup> This is due to the SIDH's ability to allow for decentralizing industrial facilities to meet shipper's needs and accommodate customers more efficiently with "just in time" practices, completely revolutionizing the way commerce is distributed. A 2007 study by the Federal Highway Administration's (FHWA) Freight Analysis Framework concluded that demands on the trucking industry would continue to rise dramatically as compared to rail and waterborne methods due to forecasted changes in the economy. The

production of higher-value-added and time-sensitive goods is anticipated to overwhelmingly favor the trucking industry by shippers as opposed to other means.<sup>28</sup>

### Explosive Demand on the SIDH

The demand on our SIDH and its ability to traffic freight is forecasted to continue to grow significantly. Today there are over one million more trucks utilizing the SIDH than there were 10 years ago.<sup>29</sup> These trucks carry an astonishing 93 percent of all our nation's freight.<sup>30</sup> The efficiencies the SIDH has given our commerce system is further evidenced by the demand for our goods. Exports set records in 2012 and 2013, with unprecedented levels of commerce with 70 other countries.<sup>31</sup> By 2050, the population in the United States is expected to increase by an additional 100 million.<sup>32</sup> This domestic growth, combined with reliance on global trade, is forecasted to require over 8 billion more tons of trucked freight on the SIDH per year than it currently does!<sup>33</sup>

This unyielding demand for freight transportation on the SIDH, driven by economic growth, is fueling an economy forecasted to grow at a compound annual rate of 2.8 percent over the next 30 years.<sup>34</sup> This will result in a GDP growing over 130 percent in 2035 as compared to 2005, and a doubling of the demand for freight transportation on the SIDH.<sup>35</sup>

### The SIDH and Power Projection

The Strategic Highway Network (STRAHNET) is an often-overlooked capability our SIDH provides as well. Supporting national defense was one of the main reasons for building the system.<sup>36</sup> The STRAHNET provides the ability to rapidly and flexibly maneuver land based combat power to air and seaports of embarkation for follow on movement. This concept was one of the benefactors of the system and why Eisenhower fought so vehemently for it. When the SIDH was approved, the U.S. was in the midst of

the Cold War. National security depended on the development of an efficient highway system to move huge quantities of military personnel and supplies.<sup>37</sup> Fortunately, the utility of the STRAHNET was never realized during the Cold War, though it can be argued that because of its deterrence value, conflict was averted.

### The SIDH as a Policy Enabler

Roads are designated as part of the STRAHNET by the Federal Highway Administration (FHWA) and provide a forum for the Department of Defense (DoD) and states to influence investment and maintenance priorities. Today, the STRAHNET utilizes 45,400 miles of the SIDH, and 15,600 miles of other public highways. 1,700 miles of connecting routes complement the STRAHNET and link more than 200 military installations to the SIDH.<sup>38</sup>

The strategic value of the STRAHNET cannot be understated. It plays a critical role in our national security strategy and policy, and serves as a key deterrent. No other nation in the world has a networked system of defense highways to support rapid mobilization like the U.S.<sup>39</sup> The system provides the DoD the ability to maintain defense access, continuity, and mobility in an emergency to move massive amounts of supplies in support of national objectives.

### The SIDH's Proven Strategic Worth

No better example for how valuable the SIDH is to our national security can be provided than the reliance on it during Operation Desert Storm in 1990-1991. In pursuit of President's intent, a massive build-up of combat power was required as soon as able in the Middle East. Without the STRAHNET being identified and capable, this simply would not have been executable. As a result, the Army cited the SIDH as a key factor in multiple after action reports. This was exemplified by Congressional testimony in 1995

by Lieutenant General Kenneth R. Wykle, then Deputy Commander of U.S. Transportation Command: "Much of the success of the operation was due to our logistical ability to rapidly move troops to the theater. The capacity of the U.S. highway system to support the mobilization of troops and to move equipment and forces to U.S. ports of embarkation was key to our successful deployment."<sup>40</sup>

The Army also noted the "modal redundancy" of the SIDH, which provided for rapid and effective movements of a Division when difficulties with a rail line precluded the planned transport by rail, exemplifying the adaptability of the road network.<sup>41</sup> Desert Storm clearly demonstrated the viability of investing in and maintaining the STRAHNET, a capability that will continue to be relied upon in the future.

As our involvement in the Middle East is winding down and efforts to focus on the Asian-Pacific region gain momentum, the STRAHNET will continue to play a major role in our policy decisions. An effective means of mobilizing repositioned assets from the European theatre will provide the foundation for credible diplomatic and economic policies. To successfully participate in a security guarantor role in the Pacific, the means to project power rapidly must be maintained and modernized.

#### The SIDH: Are We Poised for the Future?

In short, we are frighteningly unprepared. The majority of the SIDH's infrastructure is now over 45 years old. Re-investment strategies have not been formulated to upkeep the system post completion. Evidence of this can be seen in tragic instances, such as the I-35W bridge collapse in Minneapolis in 2007 that killed 13 people and injured 145.<sup>42</sup> This is just one example of how dated technology has not kept pace with the tremendous growth the SIDH will be expected to support.

### Neglect's Structural Impact

In 2008, the Reason Foundation, a public policy think tank, did a comprehensive analysis on the state of the SIDH. It found that a startling 23.7 percent of the system's bridges were considered structurally deficient, and that at the current rate of repair it would take over 50 years to bring them back into grade.<sup>43</sup>

Deferred maintenance, a common technique to manage inadequate funding, has resulted in decaying infrastructure and a staggering backlog of identified structural deficiencies in the system.<sup>44</sup> As a result, 36 percent of all public bridges are structurally deficient or do not meet current safety standards.

Infrastructure investment is clearly not meeting the needs of the national transportation system. The SIDH infrastructure is deteriorating as a result, threatening to strain our nation's economy. The nation's transit and roadway infrastructure received a grade of D in the American Society of Civil Engineers' 2013 Report Card on America's Infrastructure; the report highlighted U.S. Department of Transportation studies indicating a \$112 billion annual funding gap to bring roads, bridges and transit to a state of good repair over 20 years.<sup>45</sup>

### The Pressing Issue: Capacity

The predominant concern for the SIDH's future posturing is outdated capacity. The system of 45 years ago simply cannot sustain the projected economic growth in its current state. The evidence is overwhelming. The rates at which congestion levels have steadily risen are both astonishing and costly. Bottlenecks are the main culprit because they delay increasingly large numbers of freight shipments, casting the impact across the economy.

## Congestion and Bottlenecks

A 2007 study by the Texas Transportation Institute estimated that the cost of congestion in 437 urban areas studied amounted to \$78 billion in 2005, corresponding to 4.2 billion hours of delay and 2.9 billion excess gallons of fuel consumed.<sup>46</sup> A 2010 study by the FHWA discovered that bottlenecks account for 40 percent of all delayed shipments on the SIDH.<sup>47</sup> The FHWA study concluded that the SIDH would be expected to support a 92 percent increase in freight tonnage in 2035 as it did in 2010.<sup>48</sup> These projected delays are disconcerting because they reflect an economy heavily dependent on interstate trucking. And the problem is expected to significantly worsen. These projections imply that where today the SIDH supports an average of 10,500 trucks per mile, it would have to support 22,700 in 2035 with up to 50,000 in some areas.<sup>49</sup>

The issue of most concern is in urban areas. The Reason Foundation's 2008 study already noted that urban congestion levels rose 8.5 percentage points nationally, with 29 states reporting an alarming and unsustainable growth in congestion.<sup>50</sup> Compounding the problem is the phenomenal rate of growth in "Mega-regions", which are large networks of metropolitan centers, connected through cultural, environmental, and economic characteristics as well as highway infrastructure.<sup>51</sup> As of September 2013, there are 11 of these regions in the country in which 77 percent of freight is moved by interstate trucking between these regions, constituting 66 percent of our international trade.<sup>52</sup>

There are numerous studies indicating the necessity of not only maintaining, but also enhancing our current SIDH. The indicators and warnings are just as alarming as to the need for expanding the system, in manners that will require unprecedented funding strategies. On this system, our economic and military instruments of power are

wholly dependent. But the very funding mechanism enacted in the FAHA of 1956, the HTF, is about to reach insolvency during 2013 for the fourth time since 2008.<sup>53</sup> Even more alarming, there doesn't appear to be any consensus in Washington on to how to move forward.

### How Did We Get Here?

The core issues are the same as Eisenhower dealt with prior to the 1956 FAHA being signed, the lack of political will and misaligned stakeholder interests still render efforts to fund the current system and plan for expansion nearly impossible. The problem is twofold in that the major input into the system has proven ineffective over the long term and the very premise of the system has been re-interpreted politically over the course of its life.

In an effort to politically align all the stakeholders as to the national benefits for the system, the Clay Committee petitioned a funding mechanism based on a user-pay/user-benefit principle. In short, those who benefitted the most would pay the most in the means of highway user taxes. The majority of these taxes were federally instated motor vehicle fuel taxes. When Eisenhower signed the 1956 FAHA the federal fuel tax was set at 3 cents a gallon, with the purpose of maintaining current highways and funding construction of the SIDH via the HTF.<sup>54</sup> The federal fuel tax, as with all taxes, has remained a politically contentious issue. As such, this tax has only been raised 4 times since its inception as the primary funder of the trust fund.<sup>55</sup> Today, the federal fuel tax is 18.4 cents per gallon, a rate that hasn't changed since 1993 and is not tied to inflation.<sup>56</sup> Due to this rate's inability to keep up with inflation (and a lack of political will to make it so), its purchasing power has seen a decline so dramatic that the fund is no longer self-sustaining.

## Political Agendas and Polarization

Unfortunately, that isn't the whole story of the demise of the HTF. The aligning philosophy which won over both houses in 1956 was rooted in an agreed upon focus for the purpose of the funding taxes. As such, the Republican members of the House recommended this approach to the Senate by writing: "The existence of this fund will insure that receipts from the taxes levied to finance this program will not be diverted to other purposes."<sup>57</sup> The bill Eisenhower signed as the 1956 FAHA embodied this very provision. However, the first of many breaches to this principle was made in 1970 when a bill was signed to utilize these federal monies for bus facilities and park and ride lots.<sup>58</sup> A similar bill was enacted in 1973 for rail facilities, and in 1983 President Reagan merged the fund with a mass transit account which would receive 20 percent of its funding from the highway fund.<sup>59</sup>

Since 1983, each subsequent reauthorization of the bill has veered the HTF further from its founding principle. The HTF now pays for emissions studies, bike lanes, walk paths, historic preservations, environmental studies and the like, all of which are politically justified under the guise of 'transportation enhancements'.<sup>60</sup> In short, the fund has become a pot to be raided by locally oriented political agendas. A far cry from the principle of user-pay/user-benefit in pursuit of national interests as it was intended.

The current climate of political polarization has only exacerbated the issue. Both parties have introduced plans to revitalize the fund, with the essence of each rooted in party agendas offering little hope of consensus. Most alarming, general funds are having to be used keep the fund alive until compromise is reached, as is what happened from 2008 to 2010 when the Treasury Department had to essentially bail it out with a 'loan' of \$35 billion.<sup>61</sup>

## Moving Forward

With the state of the fund and the current political climate, what's really needed is sweeping reform in both educating America on how crucial the SIDH is to our national power and how we should fund the way forward. Reconstituting the HTF has not, and will not, prove to be the effective mechanism it was in a bygone political era. Public policy think tanks, universities and private stakeholders have offered a variety of options for the future. Many would require abandoning dependence on the current fund and diversifying funding streams, while also decentralizing control of the system. Some of the options being vetted currently include dramatic departures from the user-pay user-benefit principle. Many include utilizing estate taxes and higher brackets to form a new infrastructure fund, as well as taxing U.S. and foreign companies that indirectly benefit from the SIDH. Others mandate a portion of DoD's budget to the fund as well as state and city contributions. Still others suggest privatizing large segments of the system and dramatically increasing the gasoline tax.<sup>62</sup>

While each of these options recognizes the need and urgency for reform, none alone holistically grasp the political influence or redundancy required for realization at the federal level. The SIDH, and its irreplaceable role in national security, is in dire need of a strategy that conclusively accounts for the current shortfalls and addresses them in a way that is equitable to all stakeholders and sustainable in a dynamic political and economic environment.

### A Promising Strategy

The Hamilton Project, an economic initiative of the Brookings Institution, offers an example of a strategy that encompasses both stakeholder liability and fiscal sustainability. Their proposal for the future of the SIDH prioritizes maintaining what we

have with an investment strategy for adding capacity and instituting a rewarding mechanism for fiscally sound highway investments. At the heart of the strategy is an approach that links the premise of Eisenhower's 1956 FAHA with contemporary realities.

In order to maintain the current SIDH, the project posits the current HTF be used strictly for repairing, maintaining, rehabilitating, reconstructing and enhancing current roads and bridges.<sup>63</sup> In doing so, the project estimates that focusing the 30 percent of the fund, which is traditionally given to new projects, would dedicate over \$12 billion annually to the upkeep of the current system.<sup>64</sup>

To address the issue of congestion, they propose states be given leverage to deal with issues unique to their locality. This could be in the form of increased user fees via taxes, dedicating high occupancy lanes during peak times or tolling segments. If states deem expansion is necessary, they would have the option of seeking a loan from a publicly run "Federal Highway Bank" instead of a grant from the federal government.<sup>65</sup> This bank would initially be federally capitalized, but self-financed thereafter. It would offer loans at better than market prices and evaluate risk like a private institution to ensure cost-benefit margins are maintained, much unlike the current process of grants embedded with political agendas.

The third aspect of this proposal injects market discipline into the system by rewarding borrowers who repay their loans on time, increase safety, reduce congestion, and other similar benchmarks.<sup>66</sup> Borrowers would be forced to expose the economic and safety benefits of their proposals and be incentivized financially to meet the agreed upon conditions for the loan.

The Hamilton Project addresses the needs of the aging SIDH while simultaneously giving states the leverage they need. Their proposal would innovate the way local communities approach the congestion issue with benefits to their local taxpayers while synchronizing the interests of the nation in maintaining our economic and military power.

### Recommendations

Since the year 2000, the HTF's outlays have consistently exceeded its receipts. This gap is rapidly leading us into a treacherous predicament. Significant reforms are needed for funding the SIDH's future, as well as how we recognize it nationally as an enabler for attaining our interests. Options such as the Hamilton Project's, which represent a departure from current stagnation while remaining feasible, will require unprecedented political and national will to implement. For this purpose, an independent bi-partisan committee needs to be formed urgently. The committee must be focused exclusively on the HTF (or some replacement thereof) and the way forward for sustaining and growing the SIDH. Additionally, this committee must include leaders from the private and public sectors to leverage experience and account for relevant interests. But to ensure legitimacy and commitment, it must be led by the federal government.

### Give Tolls a Chance

In the interim, the federal government needs to grant states the maneuvering room they need to fund their individual challenges with the system. Collectively, the states pay more than \$25 billion a year for maintaining and expanding the system. This equates to states paying more every 5 years than the federal investment of \$119 billion to build the original system.<sup>67</sup> Clearly, this is unsustainable as maintenance costs for the

aging system are exponentially rising and the HTF injects less and less. What the states need in the near term is the freedom to install tolls where they deem feasible.

The most recent transportation legislation was a step in the right direction, but needs to be expounded upon. President Obama signed MAP 21 (Moving Ahead for Progress in the 21<sup>st</sup> Century Act) on July 6, 2012.<sup>68</sup> The bill recognized the need for states to toll, but permits them only on new additions to the system or if an equal amount of lanes are left free of tolls on a segment. Politically appealing bills such as these are only exacerbating the issue. While some states' constituents are understandably concerned about the economic impact on the value of land should tolls be implemented inequitably, this could be averted with leadership reminiscent of President Eisenhower. What is needed now is a national decision at the federal level to implement tolls and appropriate uniform uses for the funds generated.

#### National Level Advocacy

In the current National Security Strategy (NSS) signed by in May 2010, President Obama makes it clear that our national security is dependent "...upon America's ability to leverage our unique national attributes..."<sup>69</sup> These abilities include our military might, economic competitiveness and the resources to globally engage in efforts to shape the international system in ways that serve our interests.<sup>70</sup> Alarmingly absent from the document is mention of the infrastructure which enables the tenets of our national security.

As the playbook for defining the nation's ends and linking applicable ways and means, the next NSS must provide clarity as to the President's intent on sustaining and building our SIDH. In this era of marked political polarization with near sighted agendas, it is the President's obligation to clearly define his vision on how to overcome shortfalls

with strategic consequences. By addressing this issue head on in his capstone security document, the President has an opportunity to bridge the gap between partisan agendas and the non-partisan partnerships desperately needed for legitimate reform.

By tying in critical infrastructure to a “Whole of Government Approach” for strengthening national capacity, the President can enhance the political feasibility of efforts by communicating the urgency. NSS advocacy will serve to unite interests across the spectrum of stakeholders, as well as ignite interagency coordination in pursuit of funding strategies with a unifying agenda, national security. Fostering the direction and expertise of all our economic and security institutions, as well as private partners, will prove crucial toward integrating meaningful policy.

## Conclusion

### National Interests: A Federal Responsibility

The Constitution specifically states that Congress must “...provide for the common Defense and general Welfare of the United States...” and has a responsibility “To regulate Commerce with foreign Nations, and among the several States...”<sup>71</sup> The SIDH provides the necessary mobility for our military, providing access to air and sea ports through which our military power may be flexibly projected. It also sustains our economy by allowing the free access of goods between states and enables us to trade with other countries in a free market system that espouses our values.

The federal government has an inherent responsibility to maintain these capabilities through the maintenance of a highway system that has proven to be the foundation of our economic and military instruments of power. This capability is unlike any other in the world and remains the envy of all nations aspiring for a role on the global stage. Congress must address our domestic transportation infrastructure issues

in a manner that is feasible and sustainable in order to maintain relevancy outside our borders. The impact of globalization on the aging SIDH is rapidly overcoming our ability to maintain our military edge and economic prowess. Protecting our current system and investing smartly in added capacity is urgently required to maintain that which has enabled our dominance in venues we must continue to dominate. Today's inaction will lead to only one outcome, watching our nation's most vital asset crumble, and with it the foundation on which we have established our international prominence.

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