Factors that Influence Transportation Security Funding:
A Data Mining Analysis on U.S. Airport Improvement Grants

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Abstract

Terrorist attacks have awakened the awareness of nations around the globe on transportation security/safety. Effective security enhancement measures are needed to prevent terrorist attacks. Prior to the September 11 attack, the Federal Aviation Administration was charged with ensuring the security of both “land-side” and “air-side” operations of Airports. However, after September 11, the Transportation Security Administration (TSA) was granted responsibility for most of the “land-side” operations. In this paper we seek to answer how much of the Airport Improvement Program (AIP) grant distributed by the FAA would be available for Airport security given the establishment of TSA. An investigation of the distribution and trend of AIP grants can provide insights on how AIP funds are used towards transportation security. This study conducts a data mining analysis on the history of AIP grants. Results reveal that the longitudinal distribution of security-related AIP grants differs from that of other AIP grants in terms of their responsiveness to major environmental changes (i.e. terrorist and economic events). In addition, project characteristics such as location and airport types influence the allocation of security-related AIP grants. Implications of the findings are presented.

1. Introduction

A series of terrorist attacks on air-borne and surface vehicles – the infamous September 11 in 2001, Madrid train bombings in 2004, and London bus bombings in 2005 – have awakened the global awareness on transportation security [5]. Due to its huge passenger volume, public transportation systems are relatively easy to access and have become the primary targets of terrorists in the era of mass terrorism [9] [12] [14] [17].

A terrorist attack on a transportation vehicle or facility can result in catastrophic personal injury, huge property loss and great impact on public psychology. The U.S. Government Accountability Office reported that the collapse of the twin towers cost about $83 billion in property loss alone (in 2001 dollars, including both direct and indirect costs), not to mention the death toll of thousands [5] [6]. Psychologically, a survey conducted right after 9/11 revealed that 90% of the adults reported one or more symptoms to at least some degree and 44% reported one or more substantial symptoms of stress [22].

One important function of government agencies is to provide financial and technical support to transportation carriers to enhance security measures [24]. Government agencies mainly fulfill this responsibility through allocating government funds for transportation carriers. A carrier can apply for a government grant for improving its transportation facilities, including enhancing the security/safety measures. For ground transportation security alone, the Department of Homeland Security has awarded over $2 billion since 2006 [2].

The government has been criticized for lack of transparency and efficiency in the grant approval process [16]. For example, the Department of Homeland Security (DHS) allocated $765 million to improve security in urban areas (including transportation facilities) in 2006, but some have questioned the criteria and processes for allocating such grants [15]. Thus, it is necessary to first understand the pattern of transportation security grant allocation. In specific, the patterns may vary in two dimensions: cross-sectional and longitudinal. That is, the transportation security grant allocation may vary along the years and across different types of transportation facilities.

Airport operations have been classified as “land-side” and “air-side”. Land-side refers to the ground facilities including ramps, storage areas, parked airplanes, parking lots, and so on. Whereas the air-side portions of air travel covers areas such as landing, takeoff, flight and moving airplanes [5]. After the September 11 attack, by an Act of Congress approved by President Bush, TSA was established and charged...
with security responsibility for the “land-side” operations. Hence, the AIP grant made towards security can change because of the Congress Act. The main objective of this study is to understand the pattern of AIP transportation security grant based on publicly available grant history data. In particular, there are two specific goals: 1) to find out the portion of the AIP grant that is security-related and to determine whether this type of grant has the same allocation pattern as other types of grants; 2) to investigate the factors that influence the allocation of security-related AIP grants. The empirical analysis will provide insights on how the government allocates resources to enhance homeland security, especially transportation security.

To fulfill the research objective, this study examines the longitudinal trend of a federal transportation security investment as well as its cross-sectional composition. Due to the textual nature of grant description and huge number of grants, this study applies various data mining techniques including text mining and classification tree. The findings will inform researchers and practitioners the patterns underlying the allocation of government investment on improving transportation facilities. This study also seeks to fill the gap in the literature in terms of the empirical analysis of homeland security investment.

The rest of this paper is organized as follows. First, it presents a review of relevant literature on homeland security, in particular transportation security. Following is the discussion on research methodology that describes data and analytical techniques employed. Next, results are presented and interpreted. Finally, the implications of this study are discussed, followed by the conclusion.

2. Literature review

The federal government defines homeland security as “a concerted national effort to prevent terrorist attacks within the United States, reduce America’s vulnerability to terrorism, and minimize the damage and recover from attacks that do occur” [17]. The security of public transportation systems is an important part of homeland security. Because it is hard to predict when and where the next major terrorist attack on transportation systems will occur, it is critical to enhance airport security measures.

The current transportation security management involves mainly two players: government agencies and transportation carriers [12] [27]. Government agencies include those in charge of public transportation at different levels, such as the Homeland Security Department, Federal Aviation Administration, and Transportation Security Administration [10] [12]. Transportation carriers include the organizations that take charge of both the facilities (i.e. air/seaports, railway/bus stations) and the vehicles (i.e. airplanes, ships, trains, buses) of different transportation modes of public transportation [4] [18] [20] [28].

The government allocates investment based on the evaluation of applications using risk assessment methods [7]. In general, risk assessment is based on the evaluation of the probability and severity of certain types of potential disastrous events [13]. However, the evaluations of potential disaster probability and severity are highly subjective, and they are particularly susceptible to the occurrence of preceding disastrous events: for example, people’s risk perceptions of nuclear power dramatically escalated right after the three-mile island event [25]. An extreme event like September 11 attack has a big impact on the risk perceptions of individuals as well as the risk assessment of government authorities [26].

From a resource-based view, federal grants are the means to allocate resources to meet local development needs, and the process must account for economical efficiency [1]. The allocation of homeland security grants is closely related to the economic conditions [19]. In particular, the financial crisis in 2008 triggered the distribution of huge stimulus funds for all kinds of government programs. Security-related events such as the 9/11 and economic events such as the financial crisis may exert different impacts on government grant allocation related to homeland security.

In addition to the general environmental factors, the project-specific factors may also be important. For transportation security grant, the types of transportation facilities (e.g. high ridership, expensive infrastructure, economic importance) and the geographic locations may play critical roles [8]. It is important for potential grant applicants to understand the factors that influence the grant allocation decisions by the federal government. For example, it is possible that the allocation of federal grant may vary across the regions due to their specific needs and the influence of local offices [21]. If the types and locations of facilities do influence the allocation of certain grants, certain carriers may be encouraged to apply for such grants than others.

3. Conceptual framework

As the literature review indicates, there are two types of factors that may exert influence on the allocation of transportation security grant: environmental and project-specific. Events that alter the how all transportation security grants are allocated can be referred to as “environmental changes”. Such
events do not occur frequently but once they do, they have huge impacts on the grant allocation for a considerable period of time. On the other hand, factors that are specific to individual projects may largely determine how the government funds are divided among different projects, and they can be called “project characteristics”.

Figure 1 shows the conceptual framework of the factors that may influence transportation security grant allocation. The environmental changes affect the allocation of all the grants after the occurrence of certain dramatic events. Thus, the first dimension of such influences is the time “when” such events occur. In addition, events of different natures may have different impacts on the allocation of transportation security grants. For example, the allocation may respond to terrorist events more sensitively than economic events. Thus, event nature is likely to influence “how” the federal government assigns grants for transportation security.

**Figure 1. Security grant funding factors**

There are also two dimensions underlying project characteristics. The first dimension is related to “what” the project is about, such as the facility type and project coverage. Different types of transportation facilities often require different levels of security. For example, international airports often require higher security measures and more security equipment than domestic airports. The second dimension is related to “where” the projects are. The geographic location of airports may matter as the priority of security-related grants may be given to the areas with a lot of incoming traffic from abroad.

### 4. Methodology

This study evaluates the conceptual framework with empirical data. This section first describes the data source. The nature of the data determines the analytical techniques that are appropriate. Thus, the section discusses the analytical techniques used in this study.

#### 4.1. Data

This study utilizes secondary data on the grant history FAA’s airport improvement program (AIP). By the time this study was conducted, summary data of grant allocation between 1999 and 2011 were available to the public. The combined dataset for this analysis comprised 27,035 records, each representing a funded project with a project number.

There were seven variables in the dataset: Year, State, Region, Airport Name, Airport Category, Amount, and Brief Description of Work. Based on FAA’s region classification, the states and areas are classified into the following nine regions: Alaskan (AL), Central (CE), Eastern (EA), Great Lakes (GL), New England (NE), Northwest Mountain (NM), Southern (SO), Southwest (SW) and Western-Pacific (WP).

There are four types of airports: primary (P), general aviation (GA), reliever (R) and commercial service (CS). In addition, if a grant is for planning that does not involve a particular airport (e.g. the planning of a new airport or multiple airports), it is labeled “system planning”. Therefore, Airport Category is a categorical variable that has 5 levels.

The Brief Description of Work discloses the purposes for which the grants are approved. A grant can be used for a single purpose, or multiple purposes that are related to each other. The general term used to describe a grant for the purpose of transportation security is “security enhancements”. Sometimes, more detailed descriptions were given in addition to the general term. In some cases, a grant may be allocated for multiple purposes other than but closely related to the security-specific purpose, such as passenger and worker safety.

#### 4.2. Analytical techniques

The data contains thousands of records, and most of the variables are categorical or even textual rather than numeric. Traditional statistical methods based on variance estimation such as multiple regression analysis are not very appropriate. The purpose of this study is not to test specific research hypotheses, but to enhance the understanding of resource allocation related to transportation security grants. Thus, data mining techniques are appropriate as they have been developed for the practical purpose of machine-facilitated learning on large datasets to discover hidden knowledge [29].

According to Fayyad, Piatetsky-Shapiro and Smyth [3], data mining handles six common classes of tasks: 1) anomaly detection: the identification of unusual data
records, such as outliers, changes, or deviations that require further investigation; 2) association rule learning: the modeling of associations among phenomenon (e.g. market basket analysis); 3) clustering: the discovery of similar groups and structures; 4) classification: the generalization of known structure to new data (e.g. identify spam e-mails); 5) regression: the modeling of causal relationships between independent and dependent variables; 6) summarization: the compact representation of data (e.g. visualization).

In this study, we use data mining on the AIP data for the clustering, summarization and association rule learning purposes. First, we single out the security-related grants from other types of grants based on the clustering analysis. The traditional cluster analysis techniques (such as k-means) work only on numerical variables. However, the recently developed text mining technique can handle textual data.

Text mining is a data mining technique that is tailored for the analysis of textual data and natural languages [11]. To identify which grants are related to transportation security and their coverage, this study employs the text mining method on the variable Brief Description of Work using the SAS text miner software. This tool enables automatic discovery of conceptually related words (e.g. synonyms and near-synonyms) from large corpora of documents [23]. This software package has two general functions: 1) cluster the records based on the grouping of related concepts; 2) examine the conceptual links between an individual term and other related terms.

The first function allows us to identify the cluster of grants that are closely related to transportation security. In this way, it is possible to separate security-related grants from the other airport improvement grants (e.g. infrastructure). Then, we are able to examine the longitudinal distribution of transportation security grants in terms of total count and amount. The distribution can be compared with that of all grants. The comparison can reveal what is unique about security-related grants. In addition, the second function provides a summarization tool to understand the coverage of security-related grants. In particular, we can examine which aspects of transportation security that government grants are used for.

Finally, a decision tree analysis is performed on individual security-related grants. The specific algorithm used is Chi-squared Automatic Interaction Detection (CHAID) to identify the association rules among variables. The dependent variable is grant amount, and the explanatory variables include Year, Airport Category, and Region. This analysis is based on the assumption that grant-awarding decision-making is associated with the nature of transportation facilities as well as the temporal and geographic context. Thus, the result can reveal grant allocation patterns in terms of time, location and airport type for security-related transportation grants.

5. Results

The text mining analysis on the textual variable “Brief Description of Work” yielded 20 clusters. Among them, one is closely related to the strengthening of airport security as the key terms “security”, “international”, “fence”, “enhancement” and “improvement” indicate. The term “international” indicates that many security-related grants are related to international airport, which confirms that transportation security is a part of homeland security. There are 362 grants in the security cluster, accounting for just more than one percent of the total count. Most of the other grants are for the establishment and/or maintenance of infrastructures and facilities.

We are mainly interested in finding out the patterns underlying the allocation of government investment on improving transportation facilities, especially security and safety measures. Table 1 shows the number and amount of security grants as well as the proportions of all grants. Between 1999 and 2011, security grants counted for 1.48% of all grants. It is only in 2002 and 2003 that the proportions exceeded the average percentage, with the amount of security grants reaching more than 10% of the total. 2004 was the last year that saw both the count and amount over 1% of all grants. Since then, there has been a generally decreasing trend on airport security investment. The average amount of security grants peaked in the year 2004 to 5.29 million per grant, almost 4 times the overall average. Since then, the average amount has been below 2 million per grant except for the year 2007. In recent years after 2008, the average amount of security grants has been constantly lower than the overall average.

<table>
<thead>
<tr>
<th>Year</th>
<th>Count (% of all)</th>
<th>$ million (% of all)</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>0 (0.00%)</td>
<td>0.00 (0.00%)</td>
<td>N/A</td>
</tr>
<tr>
<td>2000</td>
<td>0 (0.00%)</td>
<td>0.00 (0.00%)</td>
<td>N/A</td>
</tr>
<tr>
<td>2001</td>
<td>3 (0.16%)</td>
<td>8.46 (0.27%)</td>
<td>2.82</td>
</tr>
<tr>
<td>2002</td>
<td>170 (9.53%)</td>
<td>373.67 (13.56%)</td>
<td>2.20</td>
</tr>
<tr>
<td>2003</td>
<td>74 (3.31%)</td>
<td>391.11 (11.95%)</td>
<td>5.29</td>
</tr>
<tr>
<td>2004</td>
<td>25 (1.16%)</td>
<td>42.31 (1.25%)</td>
<td>1.69</td>
</tr>
<tr>
<td>2005</td>
<td>20 (0.95%)</td>
<td>24.37 (0.63%)</td>
<td>1.12</td>
</tr>
<tr>
<td>2006</td>
<td>13 (0.63%)</td>
<td>24.35 (0.69%)</td>
<td>1.87</td>
</tr>
<tr>
<td>2007</td>
<td>14 (0.69%)</td>
<td>31.29 (0.94%)</td>
<td>2.23</td>
</tr>
<tr>
<td>2008</td>
<td>13 (0.53%)</td>
<td>17.28 (0.50%)</td>
<td>1.33</td>
</tr>
<tr>
<td>2009</td>
<td>10 (0.31%)</td>
<td>13.60 (0.30%)</td>
<td>1.36</td>
</tr>
<tr>
<td>2010</td>
<td>11 (0.45%)</td>
<td>14.54 (0.42%)</td>
<td>1.32</td>
</tr>
<tr>
<td>2011</td>
<td>9 (0.44%)</td>
<td>9.71 (0.28%)</td>
<td>1.08</td>
</tr>
</tbody>
</table>
Figure 2 shows the trends of all AIP grants and security-related grants over the years. Overall, there has been an increasing trend in the government spending on airports. There are two periods of time that require a close look. The first is the fluctuation in the amount of grant between 2001 and 2003 for both the security grants and overall grants. During that period, there was a drop in the amount and count for all AIP grants, yet there was a dramatic increase in those for security grants. The fluctuation reflects the impact of the infamous event that occurred on September 11, 2001. In particular, the establishment of TSA was an administrative response to the global concern for fighting terrorism of which transport was the recent known target that resulted in the allocation of more security-related AIP grants. Another interesting period is between 2008 and 2010 during which there was a surge in the count and amount of overall AIP grants, but almost no change in the allocation of security-related grants. This period matches the impact of the financial crisis in 2008, and the surge in AIP grants is due to the stimulus spending responding to the crisis. As the building of infrastructure capacities was the main focus of governmental spending during that period of time, it is not a surprise that it is the general airport improvement rather than security enhancement that was the “winner” this time.

The years 2002 and 2003 outweigh the other years in terms of the count and amount of security-related grants. The security-related grants awarded during the two years alone account for 67.40% and 80.61% in terms of the total count and amount of security-related grants awarded between 2001 and 2011. As the density of security-related grants in 2002 and 2003 is much higher than other years, we try to understand the coverage of security-related grants based on all the observations during the two years. SAS text miner allows us to obtain the concepts that are linked to a particular term, and Figure 3 shows the conceptual links of the term “security”.

According to Seidenstat [24], the major components of security for airport security include: 1) screening of passengers and carry-on luggage for weapons or explosives; 2) screening of checked baggage and cargo for explosives; 3) controlling access to secure air operations areas; 4) clearing and badging personnel with access to airport areas and aircraft; 5) FAA inspections; and 6) air marshals. The first four components are mainly the responsibilities of airports. Among them, the first two can be classified into one category labeled as “threat detection”, and the next two can be classified into another category labeled as “access control”.

Table 2 shows the nodes and related terms in the conceptual links associated with “security”. The node “enhancements” include terms such as explosive detection equipment and baggage, which is closely related to threat detection. Such security enhancement projects (as well as other projects) may be conducted in multiple phases in terms of engineering design. In addition, the monitoring of activities in terminals through the close-circuit TV systems (“cctv”) may be helpful to detect potential threats. The second group of nodes are related to access control as the terms such as access, control, fence, and perimeter indicate. The
grants are used to enhance the measures to block unauthorized individuals from entering the perimeter of airport and pose dangers to aircrafts and passengers.

In addition, security-related AIP projects have often been associated with aircraft and passenger safety as well. The most important issue is aircraft rescue and fire fighting (ARFF), which is related to the damage control after the occurrence of terrorist attacks on aircrafts. Another issue is the emergency responses, such as the installation of electricity generators in case that the event such as the terrorist attacks on the airport cut the power off. Note that the safety measures can be used to respond to non-terrorist events as well, such as extreme weather (e.g. snow storm). Compared with grants for threat detection and access control, therefore, safety grants are less directly related to transportation security.

### Table 2. Subtrees of “security”

<table>
<thead>
<tr>
<th>Category</th>
<th>Nodes</th>
<th>Exemplary Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat Detection</td>
<td>Enhancements; phase; cctv</td>
<td>tsa; bulk explosive detection equipment; baggage; acquire;</td>
</tr>
<tr>
<td>Access Control</td>
<td>Control; fencing; access; fence; install; +control</td>
<td>fence; perimeter; install; +gate; road; apron; access road; erosion; tower;</td>
</tr>
<tr>
<td>Safety</td>
<td>Safety; fighting; aircraft; rescue; vehicle; fire; removal; runway; building; equipment; improve; area; emergency</td>
<td>fighting; rescue; improve; area; runway; vehicle; fire; rescue; aircraft; arff; snow removal equipment; safety; weather; drainage; runway safety area; generator</td>
</tr>
<tr>
<td>Infra-structure &amp; Planning</td>
<td>Study; airport; acquire; conduct; expand; terminal; apron; rehabilitate</td>
<td>plan; study; update; approaches; development; land; environmental; master; miscellaneous; terminal; building; apron; expand; modify; construct; rehabilitate</td>
</tr>
</tbody>
</table>

The last category includes the terms such as terminal, building, runway and apron as well as plan, master and study. The projects to enhance airport security and safety need the support of infrastructure and planning to fit into the overall airport development. Thus, this category can be labeled as “infrastructure and planning”.

The coverage of security grants suggest that their allocation is based on the consideration of a variety of factors. The decision tree obtained based on CHAID algorithm shown in Figure 4 reveals some of the patterns underlying the allocation of government funding on transportation systems.

In the analysis, the dependent variable is the amount of security-related grants, and the variables year, region and airport type are used to explain the differences in the amount across different grants. Among the 362 security-related grants identified in this study, the average amount of grant is $2.62 million. The first split occurred at the variable Year, resulting in three nodes: Node 2 has the highest mean of $5.29 million but it contains only the year 2003. Node 1 has the second highest mean of $2.13 million, and it contains most of the years before 2008 except for 2003 and 2005. Node 3 has the lowest mean of $1.23 million, and it contains all the years after 2008 plus the year 2005.

![Figure 4. Decision tree of security funding](image)

Under node 1, there is a second-level split at the variable Region. For the grants assigned to the airports in New England (NE), Western-Pacific (WP), Southwest (SW), Northwest Mountain (NM) and Central (CE) regions, the average grant amount is $3.36 million. These regions are where most international airports are located. For the grants assigned to the airports in other regions including Eastern (EA), Southern (SO), Alaskan (AL) and Great Lakes (GL), the average grant amount is only $1.38 million.

Under node 2, there is another second-level split at the variable Type (of airport). Among the three types of airports that receive security-related grants, Primary (P) and general aviation (GA) airports received $1.31 million on average for each security-related grant, but commercial service (CS) airports only received $250 thousand on average for each grant.
A 10-fold cross-validation was conducted to evaluate the model performance. The risk estimate was $2.504 \times 10^{0.13}$, with the standard error $6.034 \times 10^{0.12}$. Resubstitution yielded the risk estimate of $2.107 \times 10^{0.13}$ and the standard error of $5.100 \times 10^{0.12}$. The ratio between risk estimates and standard error was around 4 in both cases. For scalar dependent variable, risk indicates the within-node variance. The risk estimate obtained from 10-fold cross-validation method was not very different from that obtained from the resubstitution method. Thus, the result was generally stable.

6. Implications and conclusion

The results generally support the conceptual framework that there are two sources of influences on the allocation of transportation security grants: environmental changes and project characteristics. In the trend analysis, it is clear that events of 9/11 in 2001 and financial crisis in 2008 exerted great impacts on the allocation of security-related grants as well as all the grants in different ways. The conceptual links of the term “security” reveals different aspects of security-related airport improvement projects supported by government funding. They suggest that the grants are used for security-specific purposes as well as related ones. Security-specific purposes include threat detection and access control, and related purposes include safety, infrastructure and planning. Thus, the decision regarding a security fund is based on what the project is about and where it is.

In the decision tree analysis, the first-level split at the variable Year reflected the influence of environmental changes and the second-level splits at the variables Region and Type (of airport) reflected the influence of project characteristics. Environmental changes are closely related to the occurrence of significant events. The period between 2001 and 2011 can be generally divided into two parts: the period between 2001 and 2007 is under the influence of 9/11, and the period between 2008 and 2011 is under the influence of the financial crisis. The years 2003 and 2005 are two exceptions, and they can be regarded as the peak and trough respectively in the aftermath vibration of 9/11 impact. At the next level, project characteristics including region and airport type make differences in grant allocation. During the first period between 2001 and 2007 (except for 2003 and 2005), the regions where most international airports are located received more government funds for security enhancement than other regions. During the second period after 2008 (including 2005), the primary and general aviation airports were more supported than the commercial service airports.

The main limitation of this study is rooted in the secondary nature of the data. There are not many variables included in the dataset. There are only two variables used to describe project characteristics, airport type and region. They only roughly indicate what and where a project is. In future studies, we may look into the detailed description of projects one by one to have a better idea of what each project is about. Another limitation of this study is that it only analyzed one source of government funding for transportation security in one country. In U.S. alone, there are other government programs to enhance transportation security in addition to the airport improvement program (AIP) of FAA. Even though AIP data is the most detailed available to the public, the use of one source may limit the generalizability of the findings. Besides we did not find any specific information related to TSA. The establishment of TSA and associated security enhancements could explain some of the surge in security-related grants between 2001 and 2003.

The use of amount of the individual grant as a dependent variable may be a limitation. In the future we seek to consider other variables such as security grant dollars per total airport revenues for the airport or region, and total AIP funding for the airport or region.

In spite of the limitations, the findings still yield some important implications for researchers and practitioners. Along the time dimension, the security grant allocation has been directly influenced by terrorist events such as the 9/11 attack but almost insensitive to economic events such as the 2008 financial crisis. If the security-related grant allocation has been directly influenced by terrorist events such as the 9/11 attack but almost insensitive to economic events such as the 2008 financial crisis. If the security-related grant allocation is proportional to the total transportation grant allocation, the former should increase together with the latter in recent years due to the economic stimulus effort. However, the general decreasing trend of security-related grant allocation since 2003 actually continues without much disturbance. The budget allocations for TSA may have contributed to reduction in security-related AIP grants resulting in reallocation of majority of the AIP grants to other enhancements projects. This suggests that federal government make the decisions of transportation security funding in a way totally different from other transportation grant allocations.

For transportation carriers, the findings provide the insights on how the government allocates security-related grants. Whereas there was a dramatic fluctuation in security/safety investment, it has become more stable in recent years. Meanwhile, the decreasing trend may continue until there is a new incentive, such as major terrorist threat or technological breakthrough that requires the replacement of existing security equipment. In addition, the FAA security-related
investment on AIP varies across region and different types of airports. In particular, primary (international) airports are the main recipients of security-related grants. This information can be useful for agencies that seek AIP grants. In addition, the security and economic conditions in the nation can influence whether or not an agency applying for AIP grant receives an award.

7. References


