Identifying Synergistic Relationships of National Aviation (Blue Ribbon) Commission Reports: A Qualitative Data Analysis Application

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ABSTRACT

By examining the three Blue Ribbon Commission reports focused on the aerospace industry from 1993-2002, the purpose of this paper was to identify significant synergies emerging in the aerospace industry as identified by the commissions' shared aims. A content analysis of the commission reports' recommendations revealed fundamental issues that continue to persist even though they have been recognized as problems. The analysis used a combination of concepts and phrases to link the reports together. The research revealed how the aerospace industry has changed during the time periods examined by these commissions as it resonated in the types of recommendations and associated language used in the reports. The analysis revealed three common areas of concern: modernizing the Federal Aviation Administration, forming partnerships between business and government, and investing in long-term research and development. A fourth area emerged in the 1997 and 2002 reports—developing core infrastructure for the safety and security of the entire nation, not just the passengers. Based on the dynamic trends identified in the analysis of the three reports, this study advocates a selective pattern of future policy action based on the Blue Ribbon Commissions' recommendations.

The aerospace industry has undergone a metamorphosis since its inception a hundred years ago. With the Wright Brothers first successful flight in 1903, few could imagine the widespread use of airplanes for transportation and the movement of freight as seen today. The United States (US) is struggling to maintain the most successful aerospace industry in the world. In 1993 the first of three Blue Ribbon Commissions was formed by presidential decree to study the industry. These commissions scrutinized the aerospace industry and offered workable recommendations to maintain the nation's dominance. The focusing events that led to the formation of the three distinct Blue Ribbon Commissions were such that they would have the ability to impact future policy action. Propelled by the commission findings and these events, the aerospace industry and the nation are on the verge of significant policy action. The purpose of this study to understand the connections between these commissions in order to form effective and useful policy action to lead the US in the unpredictable global market.

The three Blue Ribbon Commissions span nearly ten years: 1993-2002. This paper examines the recommendations and searches for recurring themes throughout the reports that would reflect evidence of their successful implementation. A content analysis was conducted based on the executive summary or its equivalent for each of the three commissions' final reports. Through content analysis, synergies developing within the aerospace industry became apparent. By comparing the reports, this paper demonstrates the influence of the commissions on the aerospace industry and the need for their continuing support.

The three Blue Ribbon Commissions were:

- Commission on the Future of the United States Aerospace Industry of 2002
- White House Commission on Aviation Safety and Security of 1997
- National Commission to Ensure a Strong and Competitive Airline Industry of 1993

While there are other Blue Ribbon Commissions and related reports, these three Commissions were selected for various reasons to include the major focusing events precipitating their formation. Focusing events have had the potential to significantly impact policy action (Cobb & Primo, 2003). Resulting public reaction further spurred industry and/or government action. Moreover, between 1993 and 2002, the aerospace industry experienced considerable change. At the start of the 21st century, policy changes have occurred that influenced the

financial strength of the aerospace industry and the nation as a whole in an emerging global market. Recommendations from these reports continued to influence policy action. The 2002 report was the primary document in the analysis while the other two reports served as secondary documents to which the first document was compared.

To provide contextual background, the next section offers a description of the formation and a summary of the recommendations suggested by each of the three commissions. This analysis will be followed by an explanation of the respective content. The paper concludes with a discussion of the influence of the Blue Ribbon Commissions on the aerospace industry.

Blue Ribbon Commissions Development and Recommendations

The formation of each commission resulted from a critical and potentially pivotal event in either the aerospace industry or the nation as a whole. The commissions addressed current and pressing problems within the industry which could possibly affect the nation's economic or overall well-being. Both presidents involved in the creation of these blue ribbon commissions used them to gain insight into the aerospace industry from an insider's perspective to better manage the industry and address public concerns. A limitation of the study is that each of the commissions had a different purpose since they resulted from unique circumstances. This could have had an effect on the reports' content. However, all three commissions addressed common problems and provided related recommendations for dealing with the current issues.

The Blue Ribbon commission process has become an increasingly prominent tool in the policymaking process (Kitts, 1995). This has been due, in part, to legislative issues related to executive power in areas such as foreign and defense policy. Overall, Blue Ribbon commissions have had varying success in promoting change through their recommendations. Factors related to success include articulating attainable objectives, allowing sufficient time for commissioners to complete the study, the quality of background research, response to testimony from public hearings, use of outside experts, and also commissioners' involvement in implementing the process (Johnson, 1982). Additional factors that have had a significant impact after the report was completed include the media response to the commission report and the current political environment in terms of those involved in the implementation process (Johnson, 1982; Luck, 2000). Research suggests that commission recommendations must include viable strategies that demand serious consideration from policymakers and shape political will and initiative (Johnson, 1982; Kitt, 1995; Luck, 2000).

Luck (2000) found that the aggregate impact of the Blue Ribbon commissions was more significant than the influence of an individual commission. The studies conducted within the Blue Ribbon commission process provided important contributions to various policy areas, such as guiding the international agenda of the United Nations (UN) (Luck, 2000). Typically, commission findings build on foundations established by prior studies. Consequently, they influence future Blue Ribbon commissions. Luck found considerable sharing of ideas between the Blue Ribbon commissions involving the UN and suggests similarities between other commissions. Previous aviation commissions, such as the Aviation Safety Commission that filed its report in April 1988, laid the groundwork for subsequent commissions. This commission concluded that while the national air transportation system was safe, the safety came at the expense of its passengers through delays and various inconveniences (Aviation Safety, 1988). These findings foreshadowed the current status of the air transportation system. The true success of the Blue Ribbon Commission process must be evaluated over the long term to fully appreciate the influence it has on the issues as well as those involved (Johnson, 1982; Luck, 2000).

Commission on the Future of the United States Aerospace Industry of 2002

Following the terrorists attacks on the World Trade Center and the Pentagon on September 11, 2001, President George W. Bush formed the

Commission on the Future of the United States Aerospace Industry. With Robert S. Walker as Chairman, the Commission was established by Section 1092 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Public Law 106-398. The Walker Commission was created to investigate the potential role the US aerospace industry played in the global economy and any correlation there may be to US national security (Commission on the Future, 2002). Accordingly, the Walker Commission evaluated the relationship between the domestic aerospace industry and the nation's economic and national security. "The Commission's urgent purpose is to call attention to how the critical underpinnings of this nation's aerospace industry are showing signs of faltering—and to raise the alarm" (p. v). During its investigation, the Commission issued three interim reports detailing project status. The final report was issued on November 18, 2002.

To thoroughly investigate the aerospace industry, the Walker Commission engaged in various fact-finding activities that included six public meetings occurring between November 2001 and November 2002. The Commissioners listened to 61 witnesses in public sessions and contacted more than 100 organizations to collect information (Commission on the Future, 2002). Additionally, the membership visited both Asia and Europe to explore the US aerospace role in these regions. A website was developed to communicate with individuals on a national and global level. The site had over 150, 000 visitors.

The Walker Commission emphasized the importance of the aerospace industry staying strong to maintain the stability of US leadership in the global aerospace sector. The final report was meant to be a call to action. Nine chapters of the report offered nine recommendations to the nation's leaders to foster the future of the US aerospace industry. The report and the work of the Walker Commission was based on what it hoped to create—a national vision to cultivate the imagination and innovation characterizing the first hundred years of the aerospace industry. This vision is "Anyone, Anything, Anywhere, Anytime" (Commission on the Future, 2002, p. VI.).

While the previous commissions offered three or four recommendations, the Walker Commission developed nine recommendations to ensure the strength of the aerospace industry. These recommendations corresponded with the nine chapters of the final report.

1. Vision: Anyone, Anything, Anywhere, Anytime
   The federal government must provide increased and continued investment in the aerospace industry as well as support private investment in the industry. The US should "boldly pioneer new frontiers in aerospace technology, commerce and exploration" (p. VI).
2. Air Transportation: Exploit Aviation's Mobility Advantage
   Adapt to growing and changing styles of aerospace vehicles both in civil and military functions. Move more quickly to establish new aerospace systems with an emphasis on process certification as opposed to product. Support the implementation processes and simplify airport and runway expansion.
3. Space: Its Special Significance
   Stress the importance of space to national security and economic well-being by supporting the partnership between government and industry to develop technologies. Provide future opportunity for public and commercial space ventures.
4. National Security: Defend America and Project Power
   Promote the continuous development of design and manufacturing proficiencies. Make use of the private sector to develop advances in communication, navigation and surveillance. For critical technologies and core capabilities that are not commercially viable, support their continued development. Eliminate unnecessary barriers to defense obtaining products and services from the private sector as well as

make defense products available for international sale.

5. Government: Prioritize and Promote Aerospace

   Advance aerospace by forming a management configuration that spans the government and includes a national aerospace policy. Establish an aerospace sectoral budget to "launch presidential aerospace initiatives, assure coordinated funding for such initiatives and replace vertical decision-making with horizontally determined decisions in both authorizations and appropriations" (p. xii). Under this recommendation, the Commission also calls for a "White House policy coordinating council, an aerospace management office in the OMB and a joint committee in Congress" (p. xii).

6. Global Markets: Open and Fair

   Reform US and multilateral regulations and policies to provide for a fully-competitive transfer of products and resources across international borders. Reevaluate export control regulations—especially the limits on technologies. Reduce the effect of market interference by foreign government by fortifying multilateral controls or by increasing in-kind backing for US industry.

7. Business: A New Model for the Aerospace Sector

   Boost the level of government investment. Accelerate the implementation of resourceful policies in government and industry that fuel increased investment in the public and private sectors.

8. Workforce: Launch the Future

   Stop the loss of technologically-skilled workers by addressing the early education of potential workers. Promote the intellectual and industrial potential of Americans by restructuring the educational system. Form an interagency task force to work out a national strategy that will encourage interest in the aerospace industry and promote opportunities. Reform the educational system and advance lifelong learning principles. Secure long-term endowment to education especially in the areas of math and science.

9. Research: Enable Breakthrough Aerospace Capabilities

   Raise the level of federal government monetary support in basic aerospace research to allow the US to take a principal position in relating research to product advances. This position will augment national security as it cultivates a more efficient and safer air transportation system.

These nine recommendations are described in detail in the Walker Commission's final report. Some of the recommendations are broken into several parts with various action areas described.

There was no suggestion of the funding resources for most of these various actions and the prioritization of these recommendations remains unclear. Perhaps it is the order in which they appear, but there is little to support this.

White House Commission on Aviation Safety and Security of 1997

The crash of Trans World Airlines Flight 800 prompted President Clinton to form the White House Commission on Aviation Safety and Security with its initial emphasis on security (White House, 1997, p. 4). On July 25, 1996, Vice President Al Gore was named Commission Chairman. In August, Executive Order 13015, detailed the functions and purposes of the new commission. Due to his role as Chairman, it became known as the Gore Commission. It was designed to determine what aerospace industry changes were needed to help the industry operate better and cost less while the government seeking similar changes. Additionally, the Gore Commission was tasked with three mandates: 1. examine the shifting security issues and determine how to manage

them; 2. modify government regulations to address changes in aviation industry; and 3. discover how to make optimum use of technological advances for the air traffic control system (ATC) (White House, 1997, p. 4).

By September 9, 1996, the Gore Commission offered a preliminary aviation security action plan detailing 20 recommendations. These recommendations were met with immediate action. In October 1996, over $400 million was appropriated by Congress to purchase new security improvements, such as the most recent explosives detection technology. By 1997, all the recommendations were at least in the initial stages of implementation. During a period of seven months, the Gore Commission went to airports and other aviation facilities around the US and abroad. In addition, the members engaged in six public meetings which included representatives from the aviation industry, the general public and individuals victimized by air tragedies. Input was sought globally through a Gore Commission website and at the International Conference on Aviation Safety and Security sponsored with George Washington University. On February 12, 1997, Gore presented the Commission's final report. Based on these experiences, the final report reflected a vision that assured "leadership in communications, satellite, aerospace and other technologies that increasingly are defining the global economy…to ensure greater safety and security for passengers; to restructure the relationships between government and industry into partnerships for progress; and to maintain global leadership in the aviation industry" (p. 5).

The Gore Commission offered the following key recommendations:

1. Safety
   Modify the Federal Aviation Administration's (FAA) regulatory and certification programs in order to decrease the accident rate "by a factor of five within a decade" (p. 5).
2. Air Traffic Control
   Modernize the National Airspace System using the latest safety and efficiency developments by 2005. In order to finance the process, a new financial plan is needed.
3. Security
   Assign more federal resources to advance civil aviation security. Greater cooperation is needed between local authorities and the private sector.
4. Aviation Disasters
   Designate the National Transportation Safety Board as the single entity managing the response to the disasters.

Throughout the recommendations, the Gore Commission emphasized the importance of government-industry partnerships in achieving these objectives. "The premise behind these partnerships is that government can set goals and then work with industry in the most effective way to achieve them. Partnership does not mean that government gives up its authorities or responsibilities" (p. 6). In areas where partnership was not feasible, the government exerted its position to implement the law. As opposed to using regulation, the government would also be able to use incentives to achieve goals.

Particular attention was given to the modification of the FAA. The Challenge 2000 report studied how to develop new methods for regulating operators and manufacturers. The Gore Commission calls for the FAA to reengineer itself for the 21st century. The new Management Advisory Council was tasked with contributing alternatives. The Clinton-approved reforms "give the FAA almost unlimited latitude to design new systems to meet the agency's unique and particular needs" (p. 7). An example of success in this area was the reduction in procurement documents from 233 documents to less than 50. The rest of the reform movements are less straightforward.

The Gore Commission advocated three steps for government to follow to maintain its dedication to the goals put forth:

> (1) That the Secretary of Transportation report publicly each year on the implementation status of these recommendations;
> (2) That the President assign the incoming leadership at the Department of Transportation and the FAA the clear mission of leading their agencies through the

necessary transition to re-engineered safety and security programs; and

(3) That the performance agreements for these positions, which the documents that senior managers sign with the President outlining their goals and specific means of measuring progress, include implementation of these recommendations. (White House, 1997, p. 7).

The combination of official recommendations and prescribed steps form the framework of the Gore Commission's findings. The Gore Report suggested specific actions to be accomplished by specific organizations representing a much more detailed and comprehensive plan than the previous Blue Ribbon Commission report described in the next section.

National Commission to Ensure a Strong and Competitive Airline Industry of 1993

With Public Law 103-13 approved on April 7, 1993, President Clinton established the National Commission to Ensure a Strong and Competitive Airline Industry with Gerald L. Baliles as its Chairman (National Commission, 1993). Hereafter, referred to as the Baliles Commission. The creation of this commission followed reported losses of approximately $10 billion in the industry since 1990 (Kahn, 1993). Analyzing this loss was coupled with evaluating the repercussions of deregulation in the 1970s and determining the government's role in regulating and subsidizing civil aviation due to its position in the larger national infrastructure. The Baliles Commission's mandate was "to investigate study and make policy recommendations about the financial health and future competitiveness of the US airline and aerospace industries" (p.ii). Both the President and Transportation Secretary Pena called for the Baliles Commission to evaluate every facet of these industries and to generate recommendations that would secure their power and competitive position nationally and globally.

According to Baliles, "The air transportation system has become essential to economic progress for the citizens and businesses of this nation" (National Commission, 1993, p. 1). Between May and August 1993, the 26 members of the Baliles Commission studied, analyzed and developed recommendations that were detailed in its report, *Change, Challenge and Competition*. It is based on "three principles—efficiency and technological superiority, financial strength and access to global markets" (National Commission, 1993, p. 3). While the subsequent Blue Ribbon Commission would offer specific actions and recommendations, the Baliles Commission identified three general areas where change was needed.

1. Efficient and Technological Superiority
   In order for the US air transportation system to be efficient and technologically superior, the Baliles Commission recommended redesigning the FAA. For the FAA to operate efficiently, it must be structured to generate a secure and reliable funding supply. This funding supply should be used to support strategic capital investments as well as a sound regulatory system. The system needs to not only improve safety and efficiency, but also to be cost-effective and not hinder the management of the industry.
2. Financial Strength
   For the US air transportation system to operate in an environment of rapid change, it relied on financial backing. While the 1980s were a period of growth, it was not enough to establish financial independence. Additionally, regulations and laws required additional spending to abide by such restrictions as noise abatement standards in addition to the regular turnover of aging equipment. To enhance their role in global markets, airlines need to invest significant resources. The entire system depended on highly skilled people staying in the workforce. Consequently, layoffs and industry instability led to a decrease in the pool of the select workers needed to augment the air transportation system.

3. Global Mobility
   In order to employ air transportation competitively, the outdated regulations and safeguards of the international system needed to be modified for the modern market. The Baliles Commission found that global economy demands were beyond the limits of the bilateral system of acquiring flying privileges in new areas for US airlines. The system stymied rather than promoted growth and development. The recommendation described an "open and comprehensive multi-national regime having as broad a geographic base as possible that allowed people and products to move freely and efficiently" (National Commission, 1993, p. 4).

The Baliles Commission found the advancement of the US air transportation system was restricted by policies built on a limited outlook that reduced its ability to use available resources (National Commission, 1993). Using the three principles, the report offered recommendations on how to strengthen the air transportation system and the aerospace industry.

Interpretation of Impact from Commissions' Recommendations

Since the early 1990s, the aviation industry has experienced a wide range of conflicts created by internal and external forces. The Blue Ribbon Commissions, formed between 1993 and 2002, dealt with some issues scarcely imagined in previous decades. They also were faced with recurrent issues that had failed to be adequately resolved. By determining the related enduring themes linking these three commissions, this report illustrates the influence of the Blue Ribbon Commissions on the aviation industry through the resulting policy action or inaction. An understanding of these decisive synergies should enable policymakers and future commissions to better define the needs of the industry and the nation. The collective impact of all three Blue Ribbon Commissions' synergies provides a more credible message than an individual commission could project. By analyzing these reports, both individually and collectively, an accurate and logical depiction of the common synergistic bonds can be presented.

Methodological Approach

This study applied a reliable methodological approach where content analysis was conducted by examining electronic versions of the executive summary for the Walker and Baliles Commissions and the introduction section of the Gore Commission findings since an executive summary was not included in this report. Documents were imported into the NVivo qualitative analysis software to aid in coding and analysis. The three commission reports were used to provide a representative summary of the aerospace industry at the start of 21st century. Each Commission was comprised of a range of individuals associated with the aerospace industry and government; they each presented an accurate and relatively unbiased depiction of the problems and needs of the industry.

Content analysis was a useful method for exploring threads of commonality running throughout the three reports. Frankfort-Nachmias and Nachmias (1996) defined content analysis as "any technique for making inferences by systematically and objectively identifying specified characteristics of messages." (p. 324). Similarly, Borg said content analysis is "a research technique for the objective, systematic and quantitative description of the manifest content of communication" (1963, p. 256). The purpose of content analysis was to compare communication styles in order to uncover any trends in communication content. This method was chosen because it studied the "processes occurring over long periods of time" (Babbie, 1999, p. 296). Systematic analyses of the three Blue Ribbon Commission reports uncover common themes and fundamental issues characteristic of the aerospace industry.

Even though the report summaries were analyzed, this analysis was broken down into a combination of concepts and phrases as units of analysis. According to Babbie (1999), the unit of analysis is critical in determining subsamples and subsequent coding and categorization. Since "content analysis is essentially a coding

operation," the researcher must establish the conceptual framework for determining the results (p. 290).

Coding the Blue Ribbon Commission Reports

The coding and analysis of the reports formed the basis for how the results were determined and framed. Since the reports were of varying lengths, the analysis examined only the executive summary of the Walker and Baliles Commissions' reports and the introduction of the Gore Commission report. These documents were of similar length and content.

Using the NVivo qualitative software to manage and record the coding process, each document was separately coded on a line-by-line basis. The Walker Commission was the primary document in the analysis so it was coded first. The other two reports were subsequently coded based in part on the categories that emerged during the coding of the Walker summary. When appropriate, new nodes and categories were added to ensure the best coverage of linkages between the documents. Coding of all three reports was reviewed and changed several times to better facilitate an in-depth analysis of the emerging trends and issues of the aerospace industry.

The recommendations of each of the commissions provided a basis for determining the variables which were then coded as nodes for the analysis. These nodes were then categorized according to joint issues that linked them within a more encompassing tree node. The tree nodes reflected the primary synergies of the aerospace industry discussed later in this report. For instance, *Modernizing the FAA* emerged as a tree node. Branches of this tree node included such nodes as *financial issues* and *transportation system action*.

In addition to the line-by-line coding, simple word count searches were also conducted. This allowed for content analysis of specific areas, such as the FAA as well as financial issues. By determining how often a word or concept was mentioned throughout the documents, the study found the prominence of certain areas within each commission and over the course of the three reports. The coding and word count searches were instrumental in identifying linkages between the three Blue Ribbon Commissions' findings.

These two methods of coding provided a way to identify both manifest and latent content. Manifest content represents the obvious, superficial content; whereas, latent content reveals underlying meaning (Babbie, 1999). Simple word count searches provided some interesting insight into recurring issues. However, the use of line-by-line coding provided a more thorough understanding of the issues and their treatment over the span of the three Blue Ribbon Commissions. The combination of the two forms of coding provided a more meaningful analysis with enhanced reliability and validity (Babbie, 1999).

Resultant Linkages between the Commission Reports

The results of the content analysis provide suggested connections between the three Blue Ribbon Commissions. In addition to the line-by-line analysis, a basic word count was also used to determine the amount of attention certain subjects were given. Even in areas considered important by all three commissions, the word count provided interesting data (Table 1)

Table 1. *High Frequency of Synergistic Terminology Usage for Blue Ribbon Commissions*

Commission	Research/Technology	International/Global	FAA	Partnership	Security
Walker	53	58	7	15	22
Gore	4	6	15	16	23
Baliles	6	13	6	1	0

Based on the initial coding, 17 terms were applied to the content analysis for the three documents. Of the 17 terms, four were merged into two terms, such as *research* and *technology*. Of the remaining 15 term categories, five showed a high incidence of use. These five categories were research/technology, international/global focus, FAA, partnership, and security. The relationships appeared to varying degrees throughout the line-by-line analysis and coding process. By examining the figure, it was apparent that linkages were much stronger between two of the commissions than with the third. For instance, the area of research and technology was strong between the Walker and Baliles Commission, while the Gore Commission exhibited minor attention to this issue. The concept of partnerships was greatest within the Gore Commission report, but the Walker and Baliles Commission gave it limited attention. This graphical representation visually illustrates the areas of commonality found between the Blue Ribbon Commissions (Figure 1).

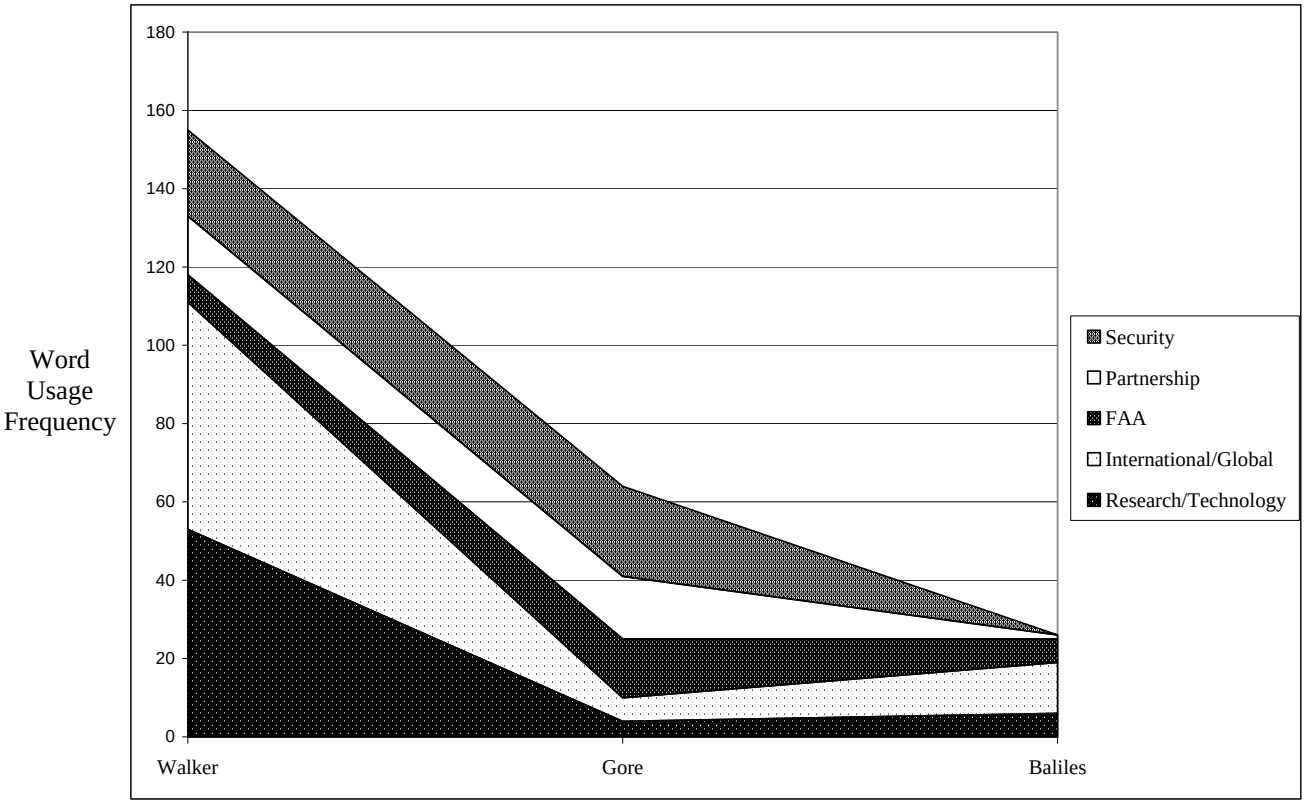

Figure 1. Synergistic Connections between Blue Ribbon Commissions, 1993-2002.

Some areas were not included in this figure because only one or two of the commissions indicated strong interest or the overall frequency was low. For instance, all three reports mention *air traffic control* (ATC), *resources* and *competitive*. However, the incidence was so low the significance was uncertain (Table 2).

Table 2. *Low Frequency of Synergistic Terminology Usage for Blue Ribbon Commissions*

Commission	Competitive	Air Traffic Control	Resources
Baliles	6	2	1
Gore	1	2	2
Walker	11	1	1

In other areas, such as *financial resources*, the incidence may be higher but there is scant correlation. The Baliles and Walker Commission had limited mention of the issue, but the Gore Commission had no mention of it (Table 3). Similarly, the Gore Commission was the only commission to specify aviation disasters. While the Walker Commission was also formed in the wake of a similar disaster, it did not include this type of language. Likewise, both the Gore and Walker Commissions had discussion related to *leadership* and the *federal government*. These terms were absent from the Baliles Report.

Table 3. *Varied Frequency of Synergistic Terminology Usage for Blue Ribbon Commissions*

Commission	Leader	Federal Government	Financial	Disaster
Baliles	0	0	7	
Gore	5	2	0	2
Walker	18	9	4	

All three reports contained considerable references to the *aerospace industry*. Since this was the focus of the reports, reference to this issue was omitted from the figure to focus on more specific connections. However, the mention of *safety* and *future* were just as frequently mentioned in different reports. The Gore Report emphasized safety, whereas the Walker report stressed the future (Table 4).

Table 4. *Mixed Frequency of Synergistic Terminology Usage for Blue Ribbon Commissions*

Commission	Industry	Safety	Future
Baliles	22	1	3
Gore	17	21	2
Walker	68	3	31

Both steps of the content analysis offered unique yet corresponding information. By using the line-by-line analysis to establish a context for the specific content analysis, interesting parallels were identified, as well as the actual level of support. Having a context for the words provided a fuller understanding of the latent content and set the groundwork for establishing a framework for future policy action discussed in the next section. This step focused the findings and provided a clear example of the relationship between the three Blue Ribbon Commissions.

Framework for Future Policy Action

Through the content analysis and the use of coding, the text was divided into various categories reflecting synergies that evolved in the aerospace industry. These synergies represent commonality expressed by Blue Ribbon Commission reports between 1993 and 2002. By linking the reports together, it became apparent how the aerospace industry changed during this time period.

Content analysis suggested some significant gaps between the recommendations and their influence over time. In some cases, the same issues were repeated in each of the commission reports indicating little resolution in that area. The analysis also revealed three common areas of concern by the three commissions based on the recommendations for action on these issues. The three areas consisted of the FAA, partnerships between business and government, and investment in long-term research and development. A fourth common area was shared by the Gore and Walker Commissions due to an unrelated series of events that prompted their formation. This commonality focused on a joint civil and military initiative to develop core infrastructure for the safety and security of the entire nation, not just the passengers. The content analysis merely identified recurring issues over time, not how they may or may not have been addressed.

Modernizing the Federal Aviation Administration

All three of the Blue Ribbon Commissions included recommendations that highlighted concerns about the organization and function of the FAA. Collectively they called for a major reorganization of the administration, with the Baliles Commission recommending privatizing the operations. According to Alfred Kahn, former chairperson of the Civil Aeronautics Board, "positioning the FAA as an independent government corporation is the single most constructive feature of the entire [Baliles Commission] report" (1993, p. 8). The Commissions found that the underlying problem was the lack of stable funding within the federal budget process. Without committed funding, the FAA was severely limited in its ability to manage its many responsibilities including its core responsibility for aviation safety. This inconsistent funding hampered the FAA's effectiveness especially as it attempted to meet the need for modernizing ATC equipment. These FAA-generated inefficiencies were costly both to the airlines and its passengers (Gore and Walker Commissions).

In other less glamorous areas, the FAA also needed to make changes. All three commissions suggested that changes should include revising the regulatory and certification process. For instance, the language of the federal aviation regulations (FAR) should be simplified. The FARs should allow for performance-based regulations. By permitting FAA's funding stream to be leveraged to finance strategic capital investments, as well as a regulatory system, may enhance its cost-effectiveness without impeding the ability of the industry to manage its affairs.

The Gore and Walker Commissions discussed the need to support Free Flight as part of the national airspace system. The operations would transition from the current ground-based system to a more collaborative air traffic management system. Free Flight would combine digital communication, satellite navigation, and computer-aided decision support tools to create an adaptable, more efficient airspace system. With the technology already in existence, transitioning to the newer system presents the problem. The Commissions cited poor oversight as the primary limitation for the transition which in turn contributed to inadequate user input, poor decisions and unsatisfactory contractor performance.

After ten years of commission reports, the Walker Commission recommended the FAA design, own and operate an air traffic control system in cooperation with the Department of Defense (DOD). In addition to producing the necessary technology in use by European and Asian countries, the Walker Commission found the private sector already had a proven ability to provide critical services such as increasing quality and decreasing costs. By collaborating with the private sector, the Walker Commission recommended the FAA transition to a new national airspace system (NAS) that integrated operations and airport capacity needs.

Previous research portrays the FAA as a reactionary agency with action occurring primarily after a crisis. These procedures are consistent with the FAA's "blood-on-the runway" reputation (Lutte, 1999). Lutte's study on crises and agency action found that increased FAA action followed major accidents if they occurred in the US. However, the actions taken were typically described as the least likely to enhance safety, such as issuing an airline a fine below $10,000 (Lutte, 1999, p. 111). This type of ineffective action supports the continued problems found with the FAA in the analysis of the Blue Ribbon Commissions' recommendations.

Forming and Managing Partnerships between Business and Government

Throughout the three commission reports, increasing attention has been given to establishing partnerships between the public and private sectors. These partnerships were recommended as a method to remove prohibitive legislation and regulatory barriers that impeded the growth of the US aerospace industry in the global market. The partnerships can be used to form an infrastructure that supports an open and comprehensive multi-national regime with a broad geographic base. Such an integrated structure would allow people and products to move freely and efficiently. By working together

the public and private sectors could integrate research as well as establish industry standards. The Gore Commission recommended that this standardization extend to regulations and procedures as well as the industry infrastructure. The Walker Commission continued the focus on public-private partnerships as an area of untapped potential. By fostering such relationships, both entities could benefit along with those using air cargo and transportation.

Investing in Research and Development Infrastructure

The importance of research and development varied throughout the three reports. The Baliles Commission scarcely mentioned the issue, focusing more on restructuring and reengineering to foster innovation. The Gore Commission shared the focus on reengineering and simplifying the infrastructure in aviation and all government-related endeavors. The primary emphasis on research and development was found in the Walker Commission.

The issue of research and development remained minor until the Walker Commission. Its Final Report emphasized the need to create an environment that fostered innovation and supported current infrastructures that promoted these efforts, such as the National Aeronautics and Space Administration (NASA). The Commission recommended various incentives to encourage risk-taking and the rapid introduction of products and services. By prioritizing FAA and NASA research and development efforts, the nation would have the critical building blocks for the future. To support this endeavor, the Walker Commission suggested creating an Office of Aerospace Development in every federal department and most federal agencies. Additionally, NASA should turn over day-to-day management responsibilities for field centers to respective state governments, universities, or businesses. The Walker Commission also recommended privatizing some NASA utilities at the Kennedy Space Center and Cape Canaveral Air Force Station.

Developing Core Infrastructure for Joint Civil and Military Initiative

This final area that emerged as a developing trend links the Gore Commission and the Walker Commission. The Baliles Commission focused on developing a strong aerospace industry with virtually no mention of safety or security measures needed to protect the aerospace industry or the nation as a whole. The Gore Commission recognized the possible security threats posed by the airline industry. Many of the measures it recommended, if implemented, could have helped to prevent the terrorist attacks that followed. Following the events of September 11, 2001, the Walker Commission added another layer to the Gore Commission's recommendations by recommending a joint civil and military initiative to develop core infrastructure. This is the first of the Blue Ribbon Commissions to unite the military and civil authorities. The airway system needs to combine civil aviation, national defense and homeland security to neutralize possible threats. The Walker Commission recommends the use of common advanced communication, navigation, surveillance infrastructure and modern operational procedures.

These four issues form the basis for the Blue Ribbon Commissions' recommendations. While each commission dealt with a unique period in time, they share common goals of furthering the aerospace industry. How they go about this process separates them, but still signifies a commonality when they are all linked through analysis. Each commission became more complex in its recommendations and course of action. This is evident through a simple review of the reports. The number of recommendations grew from 1992 to 2003, as did the length of the reports. For instance, the executive summary of the Walker Commission was longer than the entire Baliles Commission report. There are many possible explanations for this change. Quite simply, the expectations of the Walker Commission could be considered much higher than those of the Baliles Commission since the 2002 report was dictated by the terrorist attacks of 1996 and 2001.

Future Policy Action: Where do we go from here?

The Blue Ribbon Commissions highlighted key issues affecting the aerospace industry over the long term. These issues are modernizing the Federal Aviation Administration, forming partnerships between business and government, investing in long-term research and development, and cultivating the core infrastructure for national safety and security (Table 5).

Table 5. *Key Issues Affecting the Aerospace Industry Per the Blue Ribbon Commissions*

Commission	FAA	Partnership	Research/Technology	Security
Walker	7	15	53	22
Gore	15	16	4	23
Baliles	6	1	6	0

While each of the commissions may have addressed these issues using a different approach, it is the commonality of focus that illustrates the Blue Ribbon Commission process's strength. The importance of these issues remains as relevant today as when the Baliles Commission first emphasized their value and impact.

Many of the recommendations have been addressed; however, critical problems continued throughout the time period evaluated. Clearly these problems will continue if policy changes are not made and implemented. The Walker Commission echoed the earlier commission reports when it identified these key issues and offered a range of actions to address them. Granted, many suggested actions may not be feasible. However, based on the synergies that emerged from a combination of the three reports, a more selective pattern of action might be advocated.

The strength of the Blue Ribbon Commissions is gained through these common areas of significance. This is echoed by Secretary of Transportation Norman Y. Mineta in a recent hearing on The Future of Air Transportation in America. Mineta said, "Our national plan must be connected to the Walker Report….We will coordinate a direct connection to the future of aviation as guided by the Walker Report in the long term" (Future of Air, 2004). The short term impetus comes from the previous commission reports' recommendations. Mineta indicated that the Joint Planning Development Office (JPO) process is going to implement the White House policies/mandates that are consistent with Walker Commission Report. Similarly, FAA Administrator, Marion Blakely, stated the "JPO is the key to our future. Maintaining leadership is absolutely critical to maintaining our position in global aviation" (Future of Air, 2004).

This action should center on the key issues categorized in this study. The FAA must be modernized based on the most up-to-date technology available. In order to make this happen, the FAA requires a stable funding base to operate from until air transportation is replaced by a new form of transportation. With increased air transportation forecast, the FAA needs to move beyond Cold War technology to embrace and lead the way for the National Airspace System (NAS). By forming mutually beneficial public-private partnerships, the FAA and the nation will also benefit economically (Commission on the Future, 2002). These partnerships should reduce the cost of the government doing a job that can be accomplished more efficiently in the private sector. Involvement in partnerships may move the FAA toward a more proactive reputation than previously revealed. Clearly, resources can be pooled and focused on developing a research and development infrastructure that can address the long and short-term goals of the aerospace industry and its partners. By making optimum use of technology produced in the public and private sectors, the FAA and the aerospace industry will be better able to prepare for the future demands of the global market and the rising importance of air transportation. Even as the terrorist attacks begin to fade in the public's memory, the elements of safety and security remain intense.

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