DEFENSE OFFSETS: ARE THEY TAKING AWAY OUR JOBS?

HEARING

BEFORE THE

SUBCOMMITTEE ON CRIMINAL JUSTICE, DRUG POLICY, AND HUMAN RESOURCES

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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DEFENSE OFFSETS: ARE THEY TAKING AWAY OUR JOBS?

TUESDAY, JUNE 29, 1999

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CRIMINAL JUSTICE, DRUG POLICY,
AND HUMAN RESOURCES,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m., in room 2154, Rayburn House Office Building, Hon. John L. Mica (chairman of the subcommittee) presiding.

Present: Representatives Mica, Gilman, Hutchinson, Ose, Kucinich, and Tierney.

Staff present: Sharon Pinkerton, deputy staff director; Steve Dilingham, special counsel; Mason Alinger, professional staff member; Andrew Greeley, clerk; David Rapallo and Michael Yeager, minority counsels; and Jean Gosa, minority staff assistant.

Mr. MICA. Good morning. We will call this meeting of the House Criminal Justice, Drug Policy, and Human Resources Subcommittee to order.

I will begin this morning with an opening statement and then will yield. We have three panels today, we will recognize them as soon as we finish our opening statements.

This morning the topic of our hearing is defense offsets, are we giving away our jobs?

Over the past decade, both small and large businesses have increasingly relied on international trade for growth and job creation. International factors must be considered when conducting business for almost every company, from Ford Motor Co., with its roughly 350,000 employees worldwide, to a small software company in my district in Florida.

Our focus today falls upon the U.S. aerospace industry, an industry particularly affected by globalization. Companies like McDonnell Douglas and Lockheed Martin have led the world in technological advancements in the defense and aerospace industries. Such companies have made it possible for the U.S. aerospace industry to enjoy a trade surplus exceeding $40 billion while the overall U.S. economy faces a record trade deficit approaching $300 billion.

Recently, the worldwide demand for both defense and aerospace products has escalated. Many foreign governments are now officially mandating offsets from U.S. companies to help alleviate the impact on the foreign country's economy of contracting out the business to the United States. Offsets can range from foreign demands that an aerospace company produce at least part of the

product in the foreign country, to obligating the aerospace company to purchase its office furniture from a company in the foreign country.

Offsets have gained increasing attention in recent years because of the controversial impact they may have on the U.S. economy. More specifically, some labor interests charge that defense offsets send American jobs overseas.

The argument has also been made that offsets adversely affect industries completely unrelated to the defense and aerospace industries.

While on a case-by-case basis, the aerospace industry might agree that some smaller companies have been injured, they would also argue that offsets help to keep alive an industry faced with increasing international competition. By refusing to negotiate offsets, U.S. companies run the risk of losing the contracts to international competitors that are willing to accept the offset requirements.

We are here today to listen to the concerns raised about offsets in the defense and aerospace industries, and to determine whether Congress should modify its policy of limited involvement in offset agreements.

After reading today's testimony, it appears that none of the witnesses champion the practice of offsets in foreign military sales. Rather, the issue seems to be whether Congress needs to change our current policy to protect against the negative impacts of offset agreements or whether the benefits of jobs created by the exports outweigh the losses to other companies.

The panel of experts before us today will discuss whether offsets adversely impact the U.S. economy, and, if so, what can be done about it. Currently, the U.S. Government's role regarding offsets is simply to monitor the offset agreements and issue a yearly report. Also, when technology transfers are involved, the necessary licenses are approved.

Several options have been suggested to help alleviate the impact of offsets. We will hear some of those proposals today, and also some of the difficulties in implementing those proposals.

Are offsets detrimental to the U.S. economy? Are American jobs being sent overseas? Should Congress modify the current policy of limited involvement? I look forward to hearing from the experts to help answer some of these questions.

[The prepared statement of Hon. John L. Mica follows:]

DEFENSE OFFSETS: ARE WE GIVING AWAY OUR JOBS?

OPENING STATEMENT
Chairman John Mica (R-FL)
June 29, 1999

Over the past decade, both small and large businesses have increasingly relied on international trade for growth and job creation. International factors must be considered when conducting business for almost every company, from Ford Motor Company, with its roughly 350,000 employees worldwide, to a small software company in my district in Florida.

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While on a case by case basis the aerospace industry might agree that some smaller companies have been injured, they would also argue that offsets help to keep alive an industry faced with increasing international competition. By refusing to negotiate offsets, U.S. companies run the risk of losing the contracts to international competitors that are willing to accept the offset requirements.

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Are offsets detrimental to the U.S. economy? Are American jobs being sent overseas? Should the Congress modify the current policy of limited involvement?

I look forward to hearing from the experts to help answer some of these questions.

Mr. MICA. At this time I am very pleased to recognize the gentleman from Massachusetts, who requested this hearing, and I was pleased to comply. I apologize for the delay. We have had a couple of other national issues which take precedence, but I thank him for his interest in the issue, and I would like to recognize him at this time.

Mr. TIERNEY. Thank you, Chairman Mica. I thank you for holding this hearing on defense offsets. You have shown a great ability to lead in a bipartisan way by acceding to having this hearing and participating in it.

I also want to thank Senator Feingold for taking the time out to share with us his experiences in the defense offsets of his home State of Wisconsin, and I thank our other distinguished witnesses who will be joining us from the administration, the defense industry and the labor community.

Most people are, in fact, not familiar with defense offsets, how they work, why we have them and what they are intended to do, although many businesses and employees are impacted, and many are sometimes adversely impacted by their use. This phenomenon takes place regardless of whether the business or the worker is actually in the defense industry, as you will see. For those people out there who are not familiar with the topic, offsets are the conditions sought by foreign governments in their negotiations for purchase of U.S. defense equipment. More often than not, these stipulations require U.S. manufacturers, as a condition of doing business with these foreign governments, to transfer taxpayer-funded defense technologies, in some instances to make direct investments in foreign companies, to purchase foreign-made components or to provide other forms of assistance. These offsets or sweeteners range from direct offsets, such as exporting jobs overseas for subsequent contracting, to indirect offsets, such as buying furniture or some other product from foreign manufacturers at higher prices than those offered by American companies.

I first became interested in defense offsets from listening to small businesses and contract employees prior to my election in 1996. In November 1997, a defense contractor located in my district won a foreign military sales contract to produce 104 military fighter engines for the Korean KTX–2 Advanced Trainer/Light-Fighter aircraft. This contract was well received locally by me, the defense contractor, and the men and women who would be doing the work. However, just a few weeks later, it was related to me that the defense contractor revealed the other side of the story to the work force. As a part of the offset agreement, only the first 25 of the 104 engines would be fully made in the United States. The next 10 engines would be made with United States parts, but 100 percent of the engines would be assembled, inspected and tested in Korea. The final 69 engines under the contract would consist of 70 percent United States parts, 30 percent Korean parts, and would be completely assembled, inspected and tested in Korea.

The euphoria quickly faded and turned to disappointment as we learned these facts. People simply could not understand why a defense contractor would allow this important engine work to be performed abroad with foreign components and foreign workers. But we know now that despite making the finest military equipment in

the world, U.S. defense contractors say they are forced to make these offset deals with foreign governments or else run the risk of losing the defense contract to another foreign country that is willing to agree to such an arrangement. As we looked into the issue, we learned that some offset deals are more than 100 percent of the total contract price.

To learn more about defense offsets, I requested the minority staff of the Committee on Government Reform look into these issues and offsets. The result was a report entitled Foreign Offset Demands in Defense and Civil Aerospace Transactions. Chairman Mica, at this time I would like to ask unanimous consent that that report be entered into the record.

Mr. MICA. Without objection, so ordered.

[The information referred to follows:]

Foreign Offset Demands in Defense and Civil Aerospace Transactions

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Prepared for Representative John F. Tierney

Minority Staff Report
Committee on Government Reform and Oversight
U.S. House of Representatives

October 23, 1998

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EXECUTIVE SUMMARY

This report provides an overview of offset practices in the defense and civil aerospace trade, an assessment of U.S. policy on offsets, and proposals for congressional consideration in the 106th Congress.

Offsets are a form of countertrade required by foreign governments when they procure certain military and large civilian products. In general, offset agreements commit U.S. sellers to provide technology, purchase components produced in the buyer country, or provide other forms of assistance to the buyer country that go beyond compensation economically necessary to support the sale.

Prime contractors in the U.S. take the view that offsets are a nuisance and a cost of doing business internationally in a competitive market for civil and military aerospace products. Aerospace workers, on the other hand, take the view that increasingly high offset concessions in aerospace sales are creating new foreign competitors and place the industry on a path to permanent employment decline. They cite estimates that by 2013, offsets and other forms of foreign outsourcing could result in the loss of 46,083 direct aerospace jobs and 34,470 other jobs that provide inputs to the aerospace industry.

Domestic suppliers, which provide aerospace goods and services as subcontractors, also complain of financial losses caused by offsets. Most suppliers surveyed by the Bureau of Export Administration and the Trade Promotion Coordinating Committee reported that offsets had adversely affected sales, helped create foreign competitors, and contributed to overproduction. A segment of the supplier base, however, benefits from offsets, because in some cases offsets improve market access and establish business relationships with foreign firms.

This report reviews: (1) statements of U.S. policy with respect to offsets; (2) the adequacy of information on offsets currently collected by the Department of Commerce; (3) opportunities to address offsets in international agreements; and (4) opportunities in domestic worker assistance programs to address the negative impacts caused by offsets. It makes the following conclusions and recommendations:

- ***Current U.S. Offset Policy Is Weak:*** Since 1978, U.S. policy has been characterized by noninvolvement in offsets. Although the U.S. government does not enter into or overtly encourage firms to enter into offsets agreements, it leaves the decision of whether to enter into offset agreements entirely to the discretion of prime manufacturers. This approach ignores the impact of offsets on domestic employment and the supplier base, and subordinates the long-term position of the aerospace industry to short-term gains derived from individual transactions.

  Recommendation: United States policy on offsets could be strengthened significantly by legislation establishing a high-level commission, composed of representatives of government, affected industry sectors, labor, and academia, to review current offset policy, recommend modifications to the current policy, and propose a plan for the reduction of detrimental effects of offsets.

- ***There is Insufficient Information to Understand the Impacts of Offsets on Employment:*** Information currently collected by the Bureau of Export Administration on military exports is too generalized to assess the impact of defense-related aerospace offsets on employment, aerospace industry suppliers, and non-aerospace businesses affected by offset arrangements. In addition, this information cannot be used to identify suppliers that unknowingly lose business as a consequence of offsets. In the case of offsets required as part of civil aerospace sales, there are no reporting requirements at all.

  Recommendation: Better information about the impacts of offsets could be obtained through legislation requiring aerospace contractors involved in significant offsets to provide to the Bureau of Export Administration (1) a copy of the transaction papers executed in connection with both defense and civil aerospace offsets, and (2) any documents periodically provided to foreign governments relating to their performance of offset obligations. Proprietary business information would remain confidential but could be used by the Bureau of Export Administration to publish aggregated data and analysis on the impact of offsets.

- ***International Agreements Are Insufficient to Prevent the Use of Offsets:*** Generally, restrictions on defense offsets are excluded from international trade agreements under exceptions for actions taken in the interest of national security. While there are some restrictions on civil aerospace offsets in international agreements, these restrictions are weak, and there has been significant debate about whether these restrictions prohibit offsets. In fact, only the European Community and the U.S. have expressly agreed to interpret these rules to bar offsets in the context of civil aerospace.

  Recommendation: Prospects for stronger international agreements could be enhanced by legislation that encourages the Administration to negotiate international agreements that prevent the use of offsets.

- ***Worker Assistance Programs Are Insufficient to Respond to the Effects of Offsets:*** Although worker assistance programs help retrain workers for employment in other fields and supply financial security for workers unable to convert their skills, none has specifically dealt with the effects of offsets on U.S. workers. In addition, although most programs offer assistance regardless of the reason workers are terminated or laid off, only the Trade Adjustment Assistance program provides significant financial assistance, and its application to workers who lose their jobs because of offsets is uncertain.

  Recommendation: Workers in the aerospace and related industries would be helped substantially by legislation providing financial support, retraining, relocation and similar assistance to employees who lose their jobs due to offsets.

I. BACKGROUND

A. Offsets Defined

Offsets are a form of countertrade required by foreign governments in the procurement of military and certain large civilian products.[1] In general, offset agreements commit the seller firm to provide technology, purchase locally produced components, or provide other forms of assistance to the buyer country that go beyond compensation economically necessary to support the sale.[2] In other words, they are non-cash "sweeteners" attached to export sales, typically set forth in side agreements and provided to the buyer country over a period of time.

In the context of civil and military aerospace sales, the focus of this report, U.S. government agencies have articulated definitions of offsets that differ primarily in the extent to which compensation must be required as a matter of foreign government policy.[3] In 1986, a U.S.

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[1] Kwabena Anyane-Ntow & Santhi C. Harvey, *A Countertrade Primer: A Look at a Growing Trend That Demands Management*, Management Accounting (USA) (Apr. 1, 1995). Countertrade is a reciprocal exchange involving little or no transfer of funds. It describes a wide range of trade arrangements in which goods, services, and technologies are exchanged in addition to, or in place of, money. *Id.*

[2]David C. Mowery, *Offsets in Commercial and Military Aerospace: An Overview,* Symposium Papers on Trends and Challenges in Aerospace Offsets, 1 (Jan. 14, 1998) [hereinafter Mowery].

[3]In 1989, Congress also described offsets in defense trade:

> (1) Many contracts entered into by United States firms for the supply of weapon systems or defense-related items to foreign countries and foreign firms are subject to contractual arrangements under which United States firms must agree --
>
> > (A) to have a specified percentage of work under, or monetary amount of, the contract performed by one or more foreign firms;
> >
> > (B) to purchase a specified amount or quantity of unrelated goods or services from domestic sources of such foreign countries; or
> >
> > (C) to invest a specified amount in domestic businesses of such foreign countries.
>
> Such contractual arrangements, known as "offsets," are a component of international trade and could have an impact on United States defense industry opportunities in domestic and foreign markets.

National Defense Authorization Act for FY 1989, Pub. L. 100-456, § 825(a) [hereinafter 1989 Defense Authorization].

government interagency group, focusing on military sales, defined offsets as "industrial compensation practices required as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services as specified in the International Traffic in Arms Regulations."[4] The definition provides that compensation to the purchaser is required as a condition of sale, but it does not address whether offsets are always a function of government policy or may instead result from competitive pressures in the marketplace.

The General Accounting Office, examining increasing offset requirements associated with military exports, recognized that foreign governments may demand offsets informally, as a criterion considered in the award of contracts.[5] According to the GAO definition, offsets are "the entire range of industrial and commercial compensation practices provided to foreign governments and firms as inducements or conditions for the purchase of military goods and services."[6]

The Trade Promotion Coordinating Committee (TPCC), a group consisting of representatives of 19 federal agencies, addressing offsets in its *National Export Strategy*, extended the term beyond military trade to the civil aerospace industry, and identified its core element to be mandatory compensation imposed by a foreign government. According to the TPCC, offsets are "mandatory requirements by a buyer government that a seller provide them compensation in a defense good, government-to-government or commercial transaction."[7] Though similar in form, offsets are fundamentally different than voluntary international collaboration, which takes place in the absence of government pressures.[8]

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[4]U.S. Department of Commerce, Bureau of Export Administration, *Offsets in Defense Trade: Report to Congress*, 2 (August 1997) [hereinafter *Section 309 Report*].

[5]*See* U.S. General Accounting Office, *Military Exports: Offset Demands Continue to Grow* (April 1996), 23 (noting that the United Kingdom does not impose mandatory guidelines for offsets but instead uses offsets as an "assessment factor in contract evaluations") [hereinafter GAO: *Offset Demands Continue to Grow*]; *compare* U.S. General Accounting Office, *Military Exports: Implementation of Recent Offset Legislation* 1 (Dec. 1990) (GAO/NSAID 91-13) [hereinafter GAO: *Recent Offset Legislation*] (defining offsets as a "range of industrial and commercial practices required by foreign governments and firms as a condition for the purchase of military exports") (emphasis added) *with* GAO: *Offset Demands Continue to Grow* at 1 (defining offsets as "the entire range of industrial and commercial compensation practices provided to foreign governments and firms as inducements or conditions") (emphasis added).

[6]*Id.*; *see generally* K. Barry Marvel, *International Offsets: An International Trade Development Tool*, Contract Management, 4 (Oct. 1995) [hereinafter Marvel].

[7]U.S. Trade Promotion Coordinating Committee, *National Export Strategy Toward the Next American Century: A U.S. Strategic Response to Foreign Competitive Practices*, 31 n.1 (1997) [hereinafter *1997 National Export Strategy*].

[8]*Id.* at 52.

B. Mechanics of Offsets

Offset obligations usually are set forth in side agreements. At the time of the agreement, the seller typically commits to providing a defined offset benefit over a period of time, which may amount to a percentage of -- or even exceed -- the value of the underlying sales contract.[9] The offset obligation is maintained essentially as an account, and offset benefits provided by the seller over the course of the contract are measured as offset credits against that account. The offset agreement typically defines the types of activities that are eligible for offset credit.[10]

During the period of the offset commitment, the parties negotiate over the amount of offset credit to be awarded for different activities. Many aerospace companies employ offsets managers for this purpose, and country-parties similarly utilize government ministries.[11] In exchange for highly desirable offset activities, such as the provision of advanced technology or training, countries often apply "multipliers" and grant additional offset credits.[12] In its simplest form, a negotiated multiplier will increase the cash value of an offset by a specified multiple. For example, if an offset project is valued at $1,000, a multiplier of 10 will increase the amount of offset credits to $10,000.[13] During the period of the offset obligation, prime contractors submit reports to the buyer governments, usually on a quarterly basis, describing in detail the offset activities undertaken.[14]

C. Varieties of Offsets

Offset arrangements appear in many forms, dictated primarily by the industrial policy needs of the buyer country and the imagination of the parties to each transaction.[15] Although

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[9]Even though the value of offset obligations may exceed the value of the underlying contract, suppliers earn profits two ways. First, offset value may be inflated by the operation of multipliers. Second, the time value of money accrues to the vendors under offset arrangements. Bureau of Export Administration official Brad Botwin explained that performance of the underlying contract may take place over 2 or 3 years, for example. The associated offset obligation may be fulfilled over a longer period, perhaps 10 or 15 years. *See Transcript of Community Meeting Held by Representative Henry A. Waxman and Representative John F. Tierney,* Peabody, Massachusetts, at 41 (June 29, 1998) [hereinafter "*Community Meeting Tr.*"].

[10]GAO: *Offset Demands Continue to Grow* at 2.

[11]Briefing by Brad Botwin, Director, Strategic Analysis Division, Office of Strategic Industries and Economic Security, U.S. Department of Commerce (Aug. 3, 1998).

[12]GAO: *Offset Demands Continue to Grow* at 2.

[13]*Id.* at 2 n.4.

[14]*Id.*

[15]*See* GAO: *Offset Demands Continue to Grow* at 3.

new forms are constantly evolving, they generally fall into two categories, direct and indirect offsets. Direct offsets are arrangements in which the benefit provided to the buyer country is directly related to the aerospace system sold in the underlying transaction. For example, in a commercial sale of aircraft, the seller might be required to assemble the landing gear in the buyer country instead of in a subcontractor's facility in the United States. Because this side agreement is directly related to the underlying aircraft sale, it would be considered a direct offset.

Indirect offsets, by contrast, involve activities unrelated to the system sold in the underlying transaction. In the example of an aircraft sale, an indirect offset arrangement might require the vendor to purchase its office furniture from a company within the buyer country. This would be termed an indirect offset because, even though office furniture is in no way related to aircraft, the furniture sale is nonetheless a component of the underlying aircraft sale.

The distinction between direct and indirect offsets is useful because each has a different impact on domestic suppliers and workers. Because direct offsets involve activities related to the underlying aerospace sale, they affect the employment and subcontractor base in the aerospace sector. Indirect offsets, on the other hand, affect a host of domestic industries and related employment that may have no connection to defense or civil aerospace. The impact of indirect offsets, which represent an ever increasing percentage of offset arrangements, is difficult to assess, because their effects are diffused throughout the economy and because the essential details of these arrangements are not reported to the Department of Commerce.

The impact of indirect offsets on suppliers in the United States is illustrated by one oft-cited example. As part of a sale of F-18 fighter aircraft, the government of Finland required the purchase of a $50 million papermaking machine produced in Finland. Instead of purchasing the machine itself, Northrop offered a $1.5 million incentive payment to a U.S. company to buy the Finnish-made product. The deal cost a domestic manufacturer of papermaking machines a sale and may have resulted in the loss of jobs in the paper-making industry.[16]

The General Accounting Office has examined proprietary transaction papers in a sample of military aerospace sales and distilled several apparent varieties of offsets, described below:[17]

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[16]*See* Owen E. Herrnstadt, *The Role of the United States Government in Setting Offset Policy*, Symposium Papers on Trends and Challenges in Aerospace Offsets (National Research Council Jan. 14, 1998). The Feingold Amendment, subsequently enacted in April 1994, prohibits a replication of this precise scenario. Under this provision, U.S. contractors are prohibited from offering incentive payments to a U.S. company to persuade it to buy goods or services from a foreign country in connection with an offset agreement. 22 U.S.C. 2779a; *see generally* U.S. General Accounting Office, *Military Offsets: Regulations Needed to Implement Prohibition on Incentive Payments* (Aug. 1997) (GAO/NSIAD-97-189).

[17]Briefing by Katherine V. Schinasi, Associate Director, National Security and International Affairs Division, Richard E. Burrell, Sr. Senior Evaluator, and Lauri A. Kay, Senior Evaluator, General Accounting Office (July 30, 1998) [hereinafter GAO Briefing (July 30, 1998)].

1. Co-Production and Subcontracting

In a co-production arrangement, a U.S. vendor contracts with one or more companies in the buyer country to assemble, build, or produce articles related to the underlying sale. In a subcontracting arrangement, a U.S. vendor agrees to buy goods or services related to the underlying sale from suppliers in the buyer country. Co-production and subcontracting offsets appeared in 20% of the transactions reviewed by GAO.[18]

> *Example (co-production): In 1991, the government of South Korea and General Dynamics (subsequently acquired by Lockheed Martin) concluded a $5.2 billion transaction for the Korean Fighter Program, involving the purchase and sale of F-16 fighter aircraft. The parties structured the deal so that the government of South Korea purchased twelve of the aircraft off-the-shelf and bought 36 in the form of aircraft kits to be assembled in Korea. In addition, South Korea obtained the right to manufacture an additional 72 F-16s under license.*[19]

> *Example (subcontracting): As part of its sale of Apache attack helicopters to the United Kingdom, valued at nearly $4 billion, McDonnell Douglas (subsequently acquired by Boeing) agreed to purchase from British firms $350 million worth of equipment for the helicopters.*[20]

2. Other Procurement

In this variety of indirect offset arrangement, the prime contractor agrees to purchase goods and services unrelated to the aerospace item sold. According to GAO, this form of offset was present in 9% of the transactions reviewed.[21]

> *Example: Lockheed Martin, as part of its sale of C-130 aircraft to Canada, agreed to purchase assemblies and avionics in Canada for another transport plane, the C-5.*[22]

3. Technology Transfer

In this form of offset arrangement, a U.S. vendor transfers technology, technical assistance, or training to the buyer country. The technology may be related or unrelated to the

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[18] *Id.*

[19] Lora Lumpe, *Sweet Deals, Stolen Jobs*, The Bulletin of the Atomic Scientists, 30 (Sept./Oct. 1994).

[20] GAO: *Offset Demands Continue to Grow* at 7.

[21] GAO Briefing (July 30, 1998).

[22] GAO: *Offset Demands Continue to Grow* at 7.

underlying aerospace item sold.[23] In GAO's review, this form of offset appeared in 48% of the transactions studied.[24]

> *Example: Lockheed Martin Tactical Aircraft Systems, as part of its sale of F-16 fighter aircraft to South Korea, agreed to transfer manufacturing and assembly expertise, enabling South Korea to assemble from kits and manufacture many of the aircraft sold as part of the deal.*[25]

4. Marketing Assistance

In this form of offset, U.S. contractors help foreign companies penetrate U.S. and/or non-U.S. markets, either performing the service in-house or using outside consultants for this purpose. Such offsets were present in 23% of the transactions reviewed by GAO.[26]

> *Example: As part of its $3 billion sale of F/A-18 fighters, McDonnell Douglas agreed to provide international marketing assistance for the REDIGO training aircraft produced by the Finnish company Valmet Aviation, Inc.*[27]

5. Financial Assistance/Investment/Joint Venture

In this form of offset arrangement, a U.S. contractor takes an equity position, provides start-up financing, or provides other services to support a new or existing business entity in the buyer country. According to GAO, such offsets appeared in 13% of the transactions reviewed.[28]

> *Example: As part of its sale of Apache attack helicopters to the United Arab Emirates, McDonnell-Douglas Helicopter Company entered into several joint ventures in the UAE, developing products, among others, to clean up oil spills and recycling printer cartridges used in photocopiers and laser printers.*[29]

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[23]For military aerospace articles, technology transfers either must be approved by the U.S. government as a foreign military sale or, if a commercial sale, must be duly licensed by the State Department. Dual-use aerospace items must be licensed by the Commerce Department in accordance with the applicable export regulations.

[24]GAO Briefing (July 30, 1998).

[25]GAO: *Offset Demands Continue to Grow* at 9.

[26]GAO Briefing (July 30, 1998).

[27]*Finland Signs On For $3 Billion F/A-18 Deal,* Aerospace Financial News (June 19, 1992).

[28]GAO Briefing (July 30, 1998).

[29]GAO: *Offset Demands Continue to Grow* at 10.

D. Differing Views on the Impact of Offsets

Apart from a general consensus that offsets add to the cost of doing business and that unilateral regulation of U.S. companies would exacerbate the offsets problem,[30] segments of the aerospace industry express differing views on the importance and impact of offsets.[31]

1. Labor Unions/Workers

Labor unions take the view that U.S. prime manufacturers are on a course of permanent employment decline as a result of both mandatory offsets and voluntary foreign outsourcing of components and subsystems. According to this view, U.S. and European producers are trapped in a prisoners' dilemma, offering increasingly high offset concessions to conclude aircraft sales, particularly in Asia. In the short run, this sacrifices U.S. (and European) jobs. In the long run, it creates new foreign competitors that further erode employment in the United States.[32]

2. Subcontractors/Suppliers

Although domestic suppliers occasionally benefit from offsets in terms of increased market access, as in certain joint venture or co-production arrangements, they generally express several concerns about offsets. First, in a typical direct offset arrangement, prime manufacturers select foreign suppliers primarily because they generate credits against the manufacturer's offset obligations. When this happens, even competitive domestic suppliers lose sales. Second, technology transfers and other forms of offsets enable foreign suppliers to become more sophisticated and experienced, enabling foreign firms to compete against U.S. companies in other sales. Third, U.S. suppliers express concern that offsets requiring foreign outsourcing can lead to overcapacity in the market, depressing sales and eroding profits.[33]

3. Prime Manufacturers

Prime manufacturers view offsets as a nuisance and as a cost of doing business internationally. In response to criticisms from suppliers and workers, prime manufacturers respond that offsets are an insignificant cause of job loss compared to reduced defense spending and industry consolidation. Prime contractors contend, moreover, that if they did not agree to offsets, they would lose sales to foreign competitors that did. Alluding to lost sales, prime manufacturers assert that "85% of something is better than 100% of nothing," and that offsets are

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[30] *Community Meeting Tr.* at 18.

[31] *1997 National Export Strategy* at 57-58.

[32] *Id.* at 58.

[33] *See id.*

a necessary evil to maintain production in the face of diminishing demand.[34]

II. TRENDS AND NEGATIVE IMPACTS

A. Lost Business and Jobs

In 1994, GAO predicted that foreign government demands for offsets in military sales would increase[35] and concluded in 1996 that offset demands had indeed grown.[36] Countries that previously had demanded offsets were demanding more from prime manufacturers and were developing long term commitments to pursue industrial policy goals. Moreover, countries that previously had not asked for offsets had begun to require them as a matter of policy.[37] In its 1997 report to Congress, the Bureau of Export Administration confirmed this trend, reporting continued increases in both new offset obligations and offset activities performed pursuant to existing obligations. According to the report, prime contractors entered into 45 new offset agreements valued at over $6 billion, representing a substantial increase in new obligations over past years, both in overall value and as a percentage of the related export contracts. The report also concluded that indirect offsets constituted an increasing percentage of the total.[38]

The impact of these increasing offset demands on employment and sales in the aerospace industry is difficult to measure. First, job loss in the industry may be attributable to other factors, such as significant reductions in defense spending over the past decade and consolidation of the global aerospace industry. Defense spending in the U.S. has dropped from roughly $370 billion in FY 1987 to less than $240 billion in FY 1997.[39] Western European nations have similarly reduced military spending, resulting in intensified competition between U.S. and European producers.[40] This decrease, coupled with a world-wide recession in the demand for commercial aircraft, resulted in the estimated loss of 545,000 jobs between 1989 and 1995.[41] Second, it is

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[34]*Id.*

[35]U.S. General Accounting Office, *Trade: Offsets in Military Sales* (Apr. 13, 1983) (GAO/NSIAD-84-102).

[36]GAO: *Offset Demands Continue to Grow* at 3.

[37]*Id.*; *but see* Mowery at 9 (acknowledging the increasing importance of indirect offsets but concluding that there is no evidence of increased offsets in recent U.S. military exports).

[38]*1997 Section 309 Report* at i.

[39]Mowery at 25.

[40]*Id.*

[41]Robert E. Scott, *The Effects of Offsets, Outsourcing, and Foreign Competition on Output and Employment in the U.S. Aerospace Industry*, Symposium Papers on Trends and Challenges in Aerospace Offsets, 2 (National Research Council Jan. 14, 1998) [hereinafter Scott,

difficult to establish whether a prime contractor awarded a contract to a foreign competitor solely because of an offset or because the foreign competitor offered more favorable terms. Third, as discussed further in section III.B.1, vendors involved in offsets currently are required to provide information only on the broad industry category affected by the offset.[42] It is therefore difficult to assess the employment impact of even reportable transactions. This problem is even more difficult in indirect offset transactions, where the impact on workers and suppliers is spread across non-aerospace industries.

Notwithstanding these difficulties, Randy Barber and Robert E. Scott, in *Jobs on the Wing,* attempted to forecast the employment consequences of offsets and other trade practices on the aerospace industry. They predicted devastating losses of high wage manufacturing jobs. They also forecast that offset policies and increased foreign competition could place 250,000 jobs at risk in aerospace and related industries in the year 2000, and estimated that as many as 469,000 jobs could be eliminated by 2013.[43] Focusing on direct offsets and other forms of outsourcing, Dr. Scott later narrowed his estimate, predicting that by 2013, offsets and other forms of foreign outsourcing could result in the loss of 46,083 direct aerospace jobs and 34,470 other jobs that provide inputs to the aerospace industry. This would equal 9.6% of aircraft employment in 1994.[44] Dr. Scott contends that this is likely a conservative estimate, in part because it focuses on the impact of direct offsets, which, according to the Bureau of Export Administration (BXA), are diminishing as a percentage share of total offsets.[45]

Apart from employment consequences, offsets also have a detrimental impact on the supplier base in the aerospace and other industries. As with employment, the impact of offsets on suppliers is difficult to assess. Because vendors are required to identify only the broad industry category affected, suppliers often are unaware that offsets are the cause of business losses. Moreover, suppliers that are aware of the adverse affects of offsets may be reluctant to complain of offset practices for fear of undermining their relationships with prime contractors.

The BXA has attempted, with limited success, to assess the impact of offsets on domestic suppliers. In its 1997 report to Congress on offsets in defense trade, BXA included results of its Competitive Enhancement and Diversification Needs Assessment Survey. The Commerce Department sends this survey to small and medium sized businesses, including subcontractors of major defense primes. Approximately 703 subcontractors, or 94% of those targeted, responded

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The Effects of Offsets].

[42]*1997 Section 309 Report, Appendix B.*

[43]Randy Barber & Robert E. Scott, *Jobs on the Wing: Trading Away the Future of the U.S. Aerospace Industry*, 2 (Economic Policy Inst. 1995) [hereinafter *Jobs on the Wing*].

[44]Robert E. Scott, *The Effects of Offsets, Outsourcing, and Foreign Competition on Output and Employment in the U.S. Aerospace Industry, supra,* at 14.

[45]*Id.* at 14-15.

to the survey. Of the 17% that indicated any impact by offsets, 78% reported that offsets adversely impacted their business. By contrast, only 22% responded that they were positively impacted by offsets.[46]

B. Damage to the Domestic Manufacturing Base

Offsets also appear to undermine key manufacturing industries in the United States. In addition to the direct impact of offsets on the aerospace industry overall, which Barber and Scott predict will contribute to $129 billion in lost sales between 1994 and 2013,[47] offsets contribute to the erosion of other important domestic industries. In its 1997 report, BXA prepared two "sector breakouts" in the aerospace industry, analyzing its data with respect to the machine tool and aerospace gear industries.

In its report, BXA concludes that offsets appear to have injured U.S.-based production in the metalworking machine tool industry. Although the dollar value of offsets in machine tools was only $113 million between 1993-1995, less than 1% of U.S. production, BXA noted that it had a disproportionate effect at the firm level.[48]

In its 1997 report on offsets, BXA also examined the impact on the aerospace gear industry. Though it noted that reduced defense spending caused a profound impact on this industry, offsets also caused significant losses in this industry. BXA noted that seven aerospace gear companies reported a negative impact from offsets, and none reported positive impacts.[49]

C. National Security Concerns

The Department of Defense historically has not opposed the use of offsets when they are used as a means of promoting uniformity of weapons systems for joint operations, lowering unit costs for its own acquisitions, and maintaining production lines for weapon systems.[50] Although

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[46] *1997 Section 309 Report* at 60-64.

[47] *Jobs on the Wing* at 2.

[48] *1997 Section 309 Report* at 54-55.

[49] *Id. at* 56-57.

[50] GAO Briefing (July 30, 1998); *see also* Federation of American Scientists, *Market Trends: Anything Goes*, Arms Sales Monitor No. 28 (Feb. 15, 1995) (http://www.fas.org/asmp/asm28.htm). Prior to 1978, the U.S. government encouraged the use of offsets and assisted prime contractors in including offset provisions in letters of offer and acceptance under the Foreign Military Sales Program. In 1978, after a subcontractor's bankruptcy caused the U.S. government to default on an offset agreement, Assistant Secretary of Defense Charles Duncan issued a memorandum declaring that offset agreements were a matter between the private contractor and the foreign government alone, and that the U.S. would no longer be involved in

offsets involving transfer of sensitive technology or information must withstand a national security review and, in the case of direct commercial sales, be duly licensed, critics of offsets argue that the practice nonetheless enhances the capabilities of potential adversaries and contributes to the proliferation of high technology weapons.

Congress recognized the potential national security consequences of offsets as part of the 1989 Defense Authorization Act. That legislation prohibits any official of the United States from entering into an agreement to transfer defense technology to a foreign government in connection with a contract subject to an offset agreement, if the agreement would "significantly and adversely affect the defense industrial base of the United States and would result in a substantial financial loss to a United States firm."[51] The 1989 Act also required the President to establish a comprehensive policy on transfer of technology in connection with offset arrangements, and required any U.S. firm entering into a defense related sale, subject to an offset arrangement exceeding $50 million, to provide notification to the Secretary of Defense.[52] After President Bush issued a policy statement on offsets, GAO noted that the policy failed to address technology transfer, as required by this statute.[53] GAO also reported that the Department of Defense had failed to implement the offset notification requirement.[54] The Department of Defense has not satisfied this requirement to date.

In its *1997 National Export Strategy,* the Trade Promotion Coordinating Committee addressed the national security impact of offsets and suggested that they were insignificant. According to the TPCC, because technology is perishable, old technology is not likely to undermine U.S. national security interests. Nor, for that matter, is the transfer of such technology likely to undermine the competitiveness of U.S. industries. In addition, the TPCC pointed out that compensation received from the sale of old technology helps defray the cost of developing new technology.[55]

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such agreements. This position has been the basis for U.S. policy ever since. Marvel at 4-5.

[51]10 U.S.C. § 2532(b).

[52]*Id.* § 2532(a)(1).

[53]GAO: *Recent Offset Legislation* at 2.

[54]*Id.* at 7.

[55]*1997 National Export Strategy* at 61.

III. WEAKNESSES OF U.S. GOVERNMENT POLICY

A. Priority of Offsets

1. Policy of Noninvolvement

In response to a requirement set forth in the 1989 Defense Authorization,[56] President Bush, in April 1990, issued the first formal statement of policy on offsets. This statement articulated a policy of noninvolvement and provided:

> Mindful of the need to minimize the adverse effects of offsets in military exports, while ensuring that the ability of U.S. firms to compete for military export sales is not undermined, the President has established the following policy:
>
> - No agency of the U.S. government shall encourage, enter directly into, or commit U.S. firms to any offset arrangement in connection with the sale of defense goods or services to foreign governments.
> - U.S. government funds shall not be used to finance offsets in security assistance transactions except in accordance with currently established policies and procedures.
> - Nothing in this policy shall prevent agencies of the U.S. government from fulfilling obligations incurred through international agreements entered into prior to the issuance of this policy.
> - The decision whether to engage in offsets, and the responsibility for negotiating and implementing offset arrangements, resides with the companies involved.
> - Any exceptions to this policy must be approved by the President through the National Security Council.

As part of the same statement, the President directed that an interagency team be assembled to consult with foreign nations with a view to limiting the adverse effects of offsets on defense procurement.[57]

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[56]Pub. L. 100-456.

[57]*1997 Section 309 Report, Appendix D*, at 157-58. In keeping with this policy, the Department of Defense (DOD) includes certain boilerplate language in Memoranda of Understanding (MOU) with allied countries. In bilateral umbrella MOUs, DOD includes the following pertaining to offsets: "The governments agree to discuss measures to limit the adverse effects of offsets on the defense industrial base of the two countries." With respect to MOUs developed for specific projects, DOD inserts a mandatory reference to Section 27 of the Arms

In 1990, the GAO reviewed this policy statement to determine whether it complied with the requirements set forth in the 1989 Defense Authorization Act. Apart from technology transfer discussed in section II.C, that Act required the President to establish a comprehensive offset policy addressing U.S. financing of offset arrangements and the effects of offsets on specific subsectors of the U.S. industrial base.[58] The GAO concluded, among other things, that the President had failed to discuss the effects of offsets on U.S. industrial base subsectors, as required by law.[59] GAO further explained that the statement "reaffirms and is consistent with the U.S. government's traditional policy of non-involvement in offset arrangements."[60]

Despite GAO's criticism, in October 1992, Congress enacted amendments to the Defense Production Act of 1950, which codified President Bush's statement of policy on offsets.[61] Since that time, Congress has not altered this statement of U.S. policy.[62]

The Clinton Administration has recently taken steps toward a stronger offset policy. In its *1997 National Export Strategy*, the TPCC, an interagency committee chaired by the Commerce Department and consisting of 18 other federal agencies, stated:

> The U.S. Government has an interest in reducing government-mandated offsets required in military or civil sales which are market distorting and economically inefficient. When foreign governments dictate the particulars of transactions which would otherwise be driven by market considerations, the benefits U.S. companies could derive from a free international market are limited. The Government has a responsibility to further evaluate what can be done to ensure that U.S. economic priorities are not compromised, and that U.S. tax dollars are not misspent when there is U.S. Government involvement in sales with foreign government representatives.[63]

The TPCC recognized that the U.S. should work to discourage foreign governments from imposing offsets. The TPCC noted further that the U.S. government should continue to monitor the effects of offsets on U.S. primes, labor, and suppliers to ensure that government action or inaction does not compromise U.S. interests. Finally, the TPCC observed that the unilateral

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Export Control Act Cooperative, providing that "no requirement shall be imposed by a participant for worksharing or other industrial or commercial compensation in connection with such agreements that are not in accordance with such agreement." *Id.* at 159.

[58]GAO: *Recent Offset Legislation* at 2.

[59]*Id.* at 2.

[60]*Id.*

[61]Pub. L. No. 102-558, § 123.

[62]*See* 50 U.S.C. app. § 2099 notes.

[63]*1997 National Export Strategy* at 62.

adoption of additional measures could disadvantage U.S. companies vis-à-vis foreign competitors that do not face similar restrictions.[64]

2. Current Offset Policy is Weak

The policy articulated in the *1997 National Export Strategy* is stronger than the policy articulated by President Bush, in that it states that: (1) the U.S. will discourage foreign governments from requiring offsets; (2) the U.S. will support U.S. companies forced to comply; and (3) further monitoring is needed. This statement, however, has not resulted in concrete actions to discourage offsets. As a practical matter, U.S. policy remains unchanged, leaving the decision of whether to enter into offsets agreements entirely to the discretion of prime manufacturers.

This policy continues to ignore the impact of offsets on employment and the supplier base, and it subordinates the long-term position of the aerospace industry to short-term financial gains derived from individual transactions. The national policy should state more aggressively the need to enter into bilateral and multilateral agreements to address the offsets problem, and it should require additional information to more accurately assess impacts on employment and the supplier base.

B. Understanding the Impact of Offsets

1. Information Currently Collected

The Bureau of Export Administration annually prepares, pursuant to Section 309 of the Defense Production Act of 1950, as amended, a report on offsets in defense trade. The Secretary of Commerce promulgated regulations in December 1994 requiring two categories of information. First, U.S. firms that enter into new contracts with a foreign government for defense goods and services must report information on new offset agreements, provided the offset agreement exceeds $5 million in value. Second, firms that are directly responsible for performing offset obligations must annually report information on transactions completed pursuant to an offset agreement, provided that the firm claims offset credit of $250,000 or more.[65]

With respect to the first category, new offset agreements, U.S. contractors are required to identify the following:

- Country purchasing the defense article
- Description of the defense article
- Signatories to the offset agreement
- Value of the export sale subject to offset

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[64] *Id.*

[65] 15 C.F.R. § 701.3

- Total value of the offset agreement
- Term (time period) of the offset agreement
- Description of performance measures (i.e., "best efforts," liquidated damages)

With respect to the second category, offset transactions within the past year, U.S. firms must provide more detailed information:

- Country purchasing defense article
- Description of defense article
- Name of entity fulfilling offset transaction, including first tier subcontractors
- Name of entity receiving benefits from offset transaction
- Dollar value of offset credits claimed by fulfilling entity, including multipliers
- Dollar value of offset transaction without multipliers
- Description of the type of offset product or services provided (co-production, technology transfer, etc.)
- Broad industry category in which the offset transaction was fulfilled (e.g., aerospace, electronics, chemicals, industrial machinery, textiles, etc.)
- Direct or indirect offset
- Name of country in which offset was fulfilled

2. Information Collected Is Inadequate to Understand the Problem

Firms supplying information on which industry was affected by the offset transaction use Standard Industrial Codes, which can be as vague as "industrial machinery" or "technical services."[66] Although this is useful information to collect, it fails to provide sufficient detail to assess accurately the impact of offsets on domestic employment and sales. In addition, it cannot be used to identify suppliers that unknowingly lose business as a consequence of offsets. Finally, these reporting requirements apply only to defense offsets, leaving policy makers with little or no information on the consequences of civil aerospace offsets.

Firms performing offset activities routinely provide more detailed information to the country that purchased the underlying export. Buyer countries carefully scrutinize this information to ensure that they get adequate value in exchange for the offset credits they award to U.S. contractors.[67] Although firms readily provide detailed information on offset activities to foreign governments, they not required to produce copies of this information to the BXA. Nor are firms required to provide the BXA copies of transaction papers that are also available to the buyer country.[68] With access to this detailed information, BXA could identify with greater

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[66]Briefing by Brad Botwin, Director, Strategic Analysis Division, Office of Strategic Industries and Economic Security, Bureau of Export Administration (Sept. 8, 1998) [hereinafter Botwin Briefing II].

[67]*Id.*

[68]*Id.*

accuracy those U.S. businesses adversely affected by direct and indirect offsets. After this information is aggregated (to protect the confidentiality of proprietary information) and published in the BXA's annual report on offsets, economists could better calculate the impact of offsets on U.S. employment and the industrial base.

C. International Agreements Are Insufficient to Prevent Use of Offsets

Despite guidance from Congress, international agreements have not been utilized successfully to prohibit offsets in defense or civil aerospace sales. In order to consider potential international solutions to offset-related problems, it is necessary to understand the international framework under which offsets are regulated. Generally, the theory underlying free trade agreements is that offsets are "economically inefficient and market distorting."[69] States that utilize them, however, have not been willing to forego their significant economic and social benefits, or at least have not been persuaded to do so. Although the Clinton Administration has been more active than its predecessors in attempting to negotiate international solutions, more pressure must be placed on foreign offenders to accept multilateral agreements barring this practice in the context of defense and civil aerospace purchases.

Because international agreements treat defense and civil aerospace transactions differently, they are discussed separately below. Generally, defense offsets are universally accepted as actions taken in the interest of national security. With respect to civil aerospace offsets, the Administration has been somewhat more successful in gaining agreement on the application of free trade rules. These rules are unclear, however, about whether offsets are prohibited. In fact, only the European Community (E.C.) and the U.S. have expressly agreed to to limit their own offset demands, expressly interpreting these rules to bar government offsets in the context of civil aerospace.

1. International Agreements Relating to Defense Offsets

The Administration has a current mandate from Congress to negotiate with foreign countries to eliminate the effects of offsets on the defense industrial base. As mentioned above, in 1984 Congress added a new Section 309 to the Defense Production Act of 1950, requiring the President to submit to Congress an annual report on the impact of defense offsets. Congress augmented this system by requiring the President, as part of the 1989 Defense Authorization, to negotiate with foreign countries to eliminate those effects. The President was directed to report to Congress on the progress of international negotiations.[70]

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[69]U.S. Office of Management and Budget, *Offsets in Military Exports*, 23 (April 16, 1990); *see also* Pub. L. 102-558 §123(a) ("certain offsets for military exports are economically inefficient and market distorting").

[70]*Id.* § 825(c)(1) ("The President shall enter into negotiations with foreign countries that have a policy of requiring an offset arrangement in connection with the purchase of defense equipment or supplies from the United States. The negotiations should be conducted with a view to achieving an agreement with the countries concerned that would limit the adverse effects that

In addition to requiring the President to attempt to achieve an international solution, Congress directed the President to analyze potential domestic actions to counter offsets, such as offsets in favor of the U.S., demands for offset credits, reductions of U.S. assistance to foreign countries, and the utilization of alternative equivalent advantages.

As discussed in section III.A, the White House issued a statement in April 1990 in an effort to fulfill Congress' demand for greater clarity in U.S. policy on defense offsets. As part of this statement, the Administration emphasized the importance of its obligation to negotiate an international solution. The statement also mentioned the designation of the Department of Defense as lead negotiating agency:

> The President has noted that the time has come to consult with our friends and allies regarding the use of offsets in defense procurements. He has, therefore, directed the Secretary of Defense, in coordination with the Secretary of State, to lead an interagency team to consult with foreign nations with a view to limiting the adverse effects of offsets on defense procurement. The interagency team will report periodically on the results of these consultations and forward any recommendations to the National Security Council.[71]

In 1992, Congress accepted and codified the President's defense offset policy, as well as the President's decision to delegate to the Department of Defense lead negotiating responsibility.[72] Building on these strides, the legislation directed the President to include in each annual *Section 309 Report* a summary and analysis of any bilateral or multilateral negotiations the Administration had conducted. The 1992 legislation also required U.S. negotiators to consider the data and findings set forth in the report. Unfortunately, the Administration's attempts to achieve an international solution to problems related to defense offsets have been unsuccessful.

a. General Agreement on Tariffs and Trade and the World Trade Organization

The General Agreement on Tariffs and Trade[73] clearly permits the use of offsets in the procurement of defense articles by foreign governments. The GATT, an international trade

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such arrangements have on the defense industrial base of each such country.").

[71] In 1989, President Bush had initially delegated these negotiating functions jointly to the Secretary of Defense and the USTR, in coordination with the Secretary of State. Ex. Or. No. 12661 of Dec. 22, 1988, 54 Fed. Reg. 779, effective Dec. 28, 1988, as amended by Ex. Or. No. 12697 of Dec. 22, 1989, 54 Fed. Reg. 53037; Ex. Or. No. 12716 of May 24, 1990, 55 Fed. Reg. 21831; Ex. Or. No. 12774 of Sept. 27, 1991, 56 Fed. Reg. 49835.

[72] *See* Pub. L. 102-558, § 123.

[73] General Agreement on Tariffs and Trade, opened for signature Oct. 30, 1947, 61 Stat. A3, T.I.A.S. No. 1700, 55 U.N.T.S. 187 [hereinafter GATT].

agreement between most nations of the world, was established in 1947 as a result of the work of the United Nations Conference on Trade and Employment. The strategy behind this landmark agreement was to identify various protectionist measures and to convert them into tariffs to be reduced incrementally. During the 1994 "Uruguay Round" of trade negotiations, the Administration revised and updated the GATT by lowering tariffs further and by revising GATT's free trade rules in a "GATT 1994." The Administration also was successful in negotiating specific plurilateral and multilateral trade agreements under the GATT framework. These negotiations established the World Trade Organization (WTO), a permanent organization designed to supervise the implementation of GATT and these supplemental trade agreements and to provide a forum for members to address issues affecting trade relations.

A fundamental tenet of free trade established in the original GATT is that GATT parties (now WTO members) may not take measures that cause discrimination against or among competitors based on noncommercial factors. This principle was intended to eliminate governmental interference that distorts commercial transactions otherwise governed by market forces. Two substantive provisions within GATT further this goal: Article 1 requires members to treat products from all other members equally (most favored nation or MFN treatment);[74] and Article 3 requires members to treat foreign products at least as well as their own (national treatment).[75] The term "offsets" does not appear in the GATT, most likely because the use of offsets accelerated after the GATT was established.

Under these fundamental tenets, at least certain types of offsets would be prohibited. For example, a country presumably would violate MFN treatment if it required U.S. companies to fulfill 20% offset obligations, but required European companies to fulfill them at only 10%. Similarly, a country would violate national treatment if it required foreign manufacturers to fulfill offset obligations but did not require the same of national companies. The GATT also elaborated on these tenets by specifically prohibiting domestic content restrictions.[76] For

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[74]*Id.* art. 1.1 ("[A]ny advantage, favour, privilege or immunity granted by any contracting party to any product originating or destined for any other country shall be accorded immediately and unconditionally to the like product originating or destined for the territories of all other contracting parties.").

[75]*Id.* art. 3.4 ("[T]he products of the territory of any contracting party imported into the territory of another contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations, and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use."). *See also* art. 2.1(a) (Tariffs, the only acceptable trade barriers under GATT, are permitted as an exception to the national treatment rule, but still must be applied equally to all other members to fulfill the MFN requirement.).

[76]*Id.* art. 3.5 ("No contracting party shall establish or maintain any internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions which requires, directly or indirectly, that any specified amount or proportion of any product must be supplied from domestic sources.").

example, if a member purchased products from a foreign company, the member could not demand that some of those products be made of steel from that member's territory. Under this framework, however, it is unclear whether other types of offsets, such as requirements to transfer technology, would be prohibited.

Regardless of whether GATT's initial free trade provisions would have prohibited current day offset arrangements, other provisions created express exemptions that clearly permit the use of offsets in defense procurement. In particular, GATT explicitly exempts from its nondiscrimination rules any procurement for governmental purposes.[77] In other words, countries may impose offsets under GATT when products are purchased for governmental purposes and not with a view to commercial resale. With respect to defense aerospace equipment, which is purchased solely for governmental purposes, the government procurement exemption would permit foreign countries to utilize offsets despite GATT's nondiscrimination provisions.

More importantly, GATT includes a provision allowing members to take any trade actions they consider necessary to protect their essential security interests.[78] Specifically mentioned are actions relating to traffic in arms, which, by definition, would be considered essential to national security. Thus, in light of the government procurement and national security exemptions, offsets are permitted under GATT for the purchase of defense aerospace articles by foreign governments. Nothing in the 1994 Uruguay Round GATT amendments altered the effect of these provisions.

b. Agreement on Government Procurement

Although the Agreement on Government Procurement[79] was intended to extend nondiscrimination rules to government procurement, its provisions continue to allow countries to use defense offsets to further national security interests. As GATT was being updated in 1994, the Administration and representatives from other countries felt the issue of government procurement should be addressed. These countries adopted the Government Procurement

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[77]*Id.* art. 3.8(a) ("The provisions of this article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.").

[78]*Id.* art. 21 ("Nothing in this Agreement shall be construed . . . to prevent any contracting party from taking any action which it considers necessary for the protection of its security interests (i) relating to fissionable materials or the materials for which they are derived; [or] (ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment.").

[79]Agreement on Government Procurement, Apr. 10, 1979, T.I.A.S. No. 10403, 1235 U.N.T.S. 258, as amended in Uruguay Round Trade Agreements, Sept. 27, 1994, H. Doc. No. 103-316 [hereinafter Government Procurement Agreement].

Agreement to close the exemption left by the GATT and to extend MFN and national treatment rules to any government procurement covered by the Agreement.[80]

In light of the burgeoning use of offsets since the GATT was first established, and based on several decades of experience with GATT, the Agreement went beyond GATT's original provisions to state expressly that offsets are impermissible.[81] This provision was a great step forward in defining the practice and attempting to eliminate its effects.

There are several drawbacks and exemptions in the Agreement, however, that virtually eradicate its significance with respect to defense purchases. First, as a "plurilateral" agreement, the Government Procurement Agreement is binding only between countries that choose to sign it. Unlike other agreements, its adoption is not required as a prerequisite to membership in the WTO. In addition, since this Agreement represents only an introductory effort to apply free trade rules to government purchases, it does not cover all government procurement. Rather than a comprehensive agreement, this pact allows each Party to determine the types of products and services it will govern.[82] Other impediments are that the Agreement covers purchases only above a certain monetary value and that "developing" countries are permitted to negotiate offsets as part of their accession to the agreement.[83]

More importantly, the Agreement creates an exception, similar to its GATT counterpart, that exempts actions taken in the interest of national security.[84] In other words, countries may

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[80]*Id.* art. 3.1 ("[E]ach Party shall provide immediately and unconditionally to the products, services and suppliers of other Parties offering products or services of the Parties, treatment no less favourable than: (a) that accorded to domestic products, services and suppliers [national treatment]; and (b) that accorded to products, services and suppliers of any other Party [MFN].").

[81]*Id.* art. 16.1 ("Entities shall not, in the qualification and selection of suppliers, products or services, or in the evaluation of tenders and awards of contracts, impose, seek or consider offsets."). A footnote defines offsets as "measures used to encourage local development or improve the balance-of-payments accounts by means of domestic content, licensing of technology, investment requirements, counter-trade or similar requirements."

[82]Signatories generally do not apply the Agreement to a significant number of defense purchases. The U.S., for example, does not apply the Agreement to many purchases by the Department of Defense.

[83]Agreement on Government Procurement art. 16.2 ("[A] developing country may at the time of accession negotiate conditions for the use of offsets, such as requirements for the incorporation of domestic content.").

[84]*Id.* art. 23.1 ("Nothing in this Agreement shall be construed to prevent any Party from taking any action or not disclosing any information which it considers necessary for the protection of its essential security interests relating to the procurement of arms, ammunition or

impose offset requirements when they determine such arrangements serve their security interests. The effect of this exception is the same as its effect within the GATT -- it virtually engulfs the rule, at least with respect to purchases of defense aerospace equipment.

Examining the national security exemption in more detail, there is an argument that indirect offsets, or offset obligations not directly related to the purchase of defense equipment, are not "essential" to protect national security and, for this reason, could be prohibited under the Agreement. As mentioned earlier, a striking trend in aerospace transactions is the increase in indirect offsets. In the purchase of military aircraft, for example, countries have begun to demand indirect offsets in unrelated sectors, such as agriculture or transportation. These unrelated fields are in no way related to the military defense or security of the demanding party.[85]

As an additional complicating factor, however, the national security exemption provides that the burden of making this determination lies with the country claiming the exemption (nothing prevents a Party from "taking any action . . . it considers necessary"). Notably, the U.S. takes the position that such determinations are not reviewable by any international appeals mechanisms.[86] Thus, any attempt to bar defense offsets internationally not only would have to include defense acquisitions within the Agreement's scope, but would have to overcome this obstacle to enforcement as well.

c. North American Free Trade Agreement

The North American Free Trade Agreement,[87] like the GATT and the Government Procurement Agreement, allows offsets in the purchase of defense aerospace equipment in the interest of national security. NAFTA officially entered into force on January 1, 1994, creating a free trade area between Canada, Mexico, and the U.S. GATT expressly allows free trade areas such as NAFTA and recognizes that their primary purpose is to go beyond merely identifying and lowering tariffs. Instead, parties establishing free trade areas are required to eliminate tariffs in substantially all trade between the Parties. NAFTA is intended to work in conjunction with

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war materials, or to procurement indispensable for national security or for national defence purposes.").

[85]*See generally* section I.C. Although some may argue that the distinction between direct and indirect offsets is vague, U.S. defense manufacturers are required under current law to submit to BXE various information about offset agreements they perform, including whether they are direct or indirect. To date, companies have not encountered difficulty with this requirement.

[86]Although the WTO offers dispute settlement mechanisms, the position of the U.S. government is that national security determinations are not reviewable. An example is the U.S. response to recent WTO challenges to the Helms-Burton sanctions against Cuba.

[87]North American Free Trade Agreement, Dec. 17, 1992, Can.-Mex.-U.S., H. Doc. No. 103-159, 32 I.L.M. 289, 605 (1993) [hereinafter NAFTA].

GATT by utilizing many of its free trade rules.[88]

In addition to incorporating GATT's nondiscrimination rules for the three signatories, NAFTA addresses the issue of government procurement in a separate, distinct chapter with rules and conditions much like the Agreement on Government Procurement.[89] This chapter explicitly prohibits offsets and provides a definition almost identical to the definition in the Government Procurement Agreement.

This prohibition does little, however, to prevent offsets in the arena of defense contracting. Besides relating to only three countries, NAFTA applies only to government entities, products, and services listed in separate annexes, which exclude significant defense purchases. In addition, NAFTA governs only transactions over a certain monetary threshold. The most important exception, however, is that NAFTA, like GATT and the Government Procurement Agreement, allows countries to take any trade restrictive actions they consider to be in their national security interests, both generally and in the specific context of government procurement.[90]

d. Outlook for Future Negotiations

The U.S. has made one other attempt to limit offsets in defense procurement, although unsuccessfully. The Administration participated in negotiations in 1992 and 1993 to create a NATO "Code of Conduct," which was to include a list of "Principles for Improving Defense Trade Among the Allies." Among these principles was a relatively weak effort to identify and reduce offsets, at least among NATO countries.[91] Although the U.S. officially viewed this language as providing inadequate discipline on offsets, the entire Code failed for various other reasons and negotiations were never resumed.

The Administration's strategy since this attempt has been to suspend further international

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[88] *Id.* art. 301 (specifying that each Party must accord national treatment to the goods of other Parties in accordance with Article 3 of the GATT).

[89] *Id.* art. 1003(1)(a) (requiring national treatment); art. 1003(1)(b) (requiring nondiscrimination); and art. 1003(2) (prohibiting discrimination based on foreign ownership of local suppliers).

[90] *Id.* art. 2102 (creating a general national security exemption); and art. 1021 (creating an exemption for national security in government procurement).

[91] *1996 Section 309 Report* at 68-69 ("[C]ountries will progressively reduce, towards timely elimination, their offset requirements, once they have noted real progress in the opening up of markets, in the transfer of technology, and in the participation in common research, development and production programmes. This process towards elimination will be reciprocal, and will take into account the different approaches to defense trade among members of the alliance.").

negotiations until a domestic consensus is reached on the best way to proceed. The Administration has been attempting to gauge the significance of offsets on domestic industry and national security. In addition, it has brought together major industrial, governmental, and academic representatives in various meetings, symposia, and working groups to discuss competing concerns and alternatives. Unfortunately, this effort appears to lack drive in that there are no stated policy or time guidelines to resolve this process. In fact, in the five years since the NATO negotiations, there have been few signs of progress in formulating an international negotiating strategy. Indeed, exceptional negotiating opportunities, such as the Uruguay Round and NAFTA negotiations, closed with little discussion of defense offsets.

This lack of interest in pursuing international offset agreements may be due to conflicting views within the Administration on impact and approach. On one hand, the United States Trade Representative (USTR) takes the position that further negotiations on this issue may be unproductive or infeasible. In the first instance, USTR believes foreign countries simply would not agree to eliminate offsets or that the price of obtaining agreement would be too costly to justify any potential benefits. These countries would demand, for instance, that the U.S. cease providing research and development support to the defense industry or eliminate legislative programs such as the Buy America Act, small business set-asides, and minority business set-asides.

In addition, USTR heeds manufacturer warnings about the drawbacks of obtaining an agreement in which relatively few countries prohibit their companies from accepting offset obligations, allowing companies from nonsignatory countries to seize foreign business opportunities. More pragmatically, perhaps, U.S. prime manufacturers do not support, and in some cases actively oppose, any government effort to establish international regulation of offsets. At best, USTR views international negotiations to eliminate offsets as a long-term objective.

Like USTR, the State Department has given priority to issues other than offset negotiations. For example, the State Department has been delinquent in issuing regulations to implement the Feingold Amendment, which prohibits U.S. manufacturers from making incentive payments to U.S. companies or individuals to persuade them to buy goods or services from a foreign country that has an offset arrangement with U.S. manufacturers.[92]

The Department of Defense, rather than actively encouraging foreign countries to agree to an offset prohibition, has proposed an alternative way of dealing with problems related to offsets. The Department of Defense is considering the viability of business consortia among major manufacturers in Europe and the U.S. This proposal has been described as follows:

> [O]ne can imagine the construction of a more cooperative regime for arms sales, where the handful of military powers with any realistic potential to develop the most advanced military systems agrees to some degree of mutual restraint on exports to third parties, perhaps in exchange for some program of industrial and technological cooperation that assures the survival of core defense industrial capabilities deemed essential to national

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[92] *See* section I.C.1; *see also* note 16.

security.[93]

Several commentators have echoed the concerns driving this proposal, arguing that the issue of offsets is relatively minor in comparison to other objectives.[94] The goals of the consortia proposal are to encourage cooperation among allied defenses and to reduce proliferation incentives, while at the same time guaranteeing market access for firms in both areas.[95] This focus on systemic shifts in the aerospace industry, however, has withheld attention from immediate issues facing U.S. workers and firms as a result of foreign offset demands. For example, the Department of Defense failed to issue regulations regarding requirements to collect data on offset agreements over $50 million.[96]

On the other hand, the Department of Commerce's Bureau of Export Administration, which now collects offset data submitted by manufacturers, has been the strongest advocate for international negotiations to prohibit offsets. In its 1996 and 1997 *Section 309 Reports*, the Commerce Department documented increasing levels of offset requirements since the defense industry began downsizing. Their forthcoming 1998 report also recommends consulting with trading partners on offsets in the defense trade. The Commerce Department has issued this recommendation in other fora, as well, including within a report to Congress from the TPCC[97] and in a letter from Bill Reinsch, Under Secretary of the Bureau of Export Administration,[98] urging USTR to raise defense offsets in priority.

In response to arguments that foreign countries will not agree to halt offsets unless the U.S. repeals the Buy America Act and other programs, the Commerce Department has estimated

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[93]Kenneth Flamm, *The Policy Context for Military Aerospace Offsets,* in Symposium Papers on Trends and Challenges in Aerospace Offsets, Board on Science, Technology, and Economic Policy, 5 (National Research Council Jan. 14, 1998).

[94]*Id.* at 1 ("[O]ffsets are just one dimension -- and not necessarily the most important one -- of a much larger issue facing U.S. policymakers."); Mowery at 32 ("[D]ealing with the causes and consequences of aerospace offsets should be addressed as one element of overall policies to deal with international trade and investment, as well as the adjustment needs of U.S. workers affected by these trade and investment flows.").

[95]*See e.g., Mega-Consortium Concept Emerging*, Aviation Week and Space Technology, v.148, n.7, 25 (Feb. 16, 1998) (In an interview, Page Hoeper, Deputy Under Secretary of Defense for International and Commercial Programs, stated that "Governments' responsibility would be to assess future technological needs and facilitate the formation of consortiums, but it would be up to industry to make them happen.").

[96]*See* section II.C.

[97]*1997 National Export Strategy* at 53.

[98]Botwin Briefing II.

that such a trade would result in a net benefit for U.S. industry. Its most recent calculations indicate that trade as a result of defense-related Buy America purchases has been less than $1 billion annually.[99] In comparison, U.S. firms entered into defense offsets arrangements of approximately $10 billion between 1993 and 1996.[100] In response to arguments that foreign countries will not agree to cease offset demands, the Commerce Department complains that the U.S. has not been assertive enough in pressing for commitments and has not been willing to place this issue at the forefront of U.S. trade negotiations.

2. International Agreements Relating to Civil Aerospace Offsets

Although the Administration has had some success negotiating agreements regarding offsets in civil aerospace transactions, several obstacles have prevented universal application of offset prohibitions. International negotiations within the civil aerospace industry have been challenging because, in addition to purely commercial concerns, negotiators often face government intervention to secure domestic interests. For example, many airlines are operated by, or have some significant connection to, the governments of the countries in which they operate. Moreover, since transactions with these quasi-state entities may be viewed as government procurement, GATT's exemption for government procurement may apply, and its nondiscrimination rules would have no effect.

As discussed above, the Government Procurement Agreement does not effectively close GATT's government procurement loophole because countries were not required to accept its terms as a condition of WTO membership, and signatories were free to exclude certain types of purchases from the Agreement's scope. Because civil aerospace is one of the largest commercial sectors, and because the Agreement was only an initial attempt to apply nondiscrimination rules to government behavior, most countries were hesitant to expand their commitments to include civil aerospace.[101]

In addition, even if the government procurement obstacle could be overcome, states could resort to the national security exemption for refuge. Although the national security exemption's nexus to civil aerospace may seem more obscure than its nexus to defense aerospace, a country could claim, for example, that an offset requiring subcontracting of civil aircraft guidance

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[99] *1998 Section 309 Report* (forthcoming).

[100] *Id.*

[101] GATT's nondiscrimination rules could apply to purely private commercial aerospace transactions. In other words, GATT's rules on MFN treatment, national treatment, and domestic content could be interpreted to bar governments from requiring foreign manufacturers to meet offset obligations as a condition of dealing with domestic purchasers. Since many potential purchasers are state-run, however, this observation is of little assistance. In addition, although NAFTA explicitly bars the use of offsets, whether offsets are prohibited would depend on whether the three signatories agreed to include civil aerospace purchases within the scope of coverage.

systems is directly transferrable to defense applications and is therefore related to its national security. As mentioned above, the scope of the exemption is somewhat vague and subject to the interpretations of individual members.

Rather than attempting to push the limits of the original GATT agreement, major civil aerospace producers and purchasers concluded that this important, high-stakes, and lucrative industry deserved individualized treatment in a trade agreement of its own.

a. Agreement on Trade in Civil Aircraft

In an effort to bring more clarity to international civil aerospace transactions, twenty-two GATT signatories adopted the Agreement on Trade in Civil Aircraft[102] during the "Tokyo Round" of GATT negotiations in 1973. This plurilateral trade pact applies to civil aircraft, engines, and ground flight simulators, whether they are used as original or replacement equipment in manufacturing, repair, maintenance, rebuilding, modification or conversion. Unfortunately, the Civil Aircraft Code includes language that only some countries interpret as prohibiting offsets. The primary provision at issue, Article 4.3, states that:

> Signatories agree that the purchase of products covered by this Agreement should be made only on a competitive price, quality and delivery basis.[103]

Since offset requirements almost invariably distort market factors, they appear to violate this provision. Additional provisions lend credence to this interpretation. Article 4.2, for instance, states that:

> Signatories shall not require airlines, airline manufacturers, or other entities engaged in the purchase of civil aircraft, nor exert unreasonable pressure on them, to procure civil aircraft from any particular source, which would create discrimination against suppliers from any Signatory.

A requirement that foreign manufacturers meet offset demands as a condition of doing business in a signatory's territory would seem to violate this provision. In addition, Article 4.4 states that signatories agree to avoid attaching inducements of any kind, and Article 5.1 states that signatories shall not apply quantitative restrictions or import licensing requirements inconsistent with GATT.

Read together, these provisions appear to prohibit offsets, and some commentators have reached this conclusion. Barber and Scott, in their report outlining challenges presented by offsets to the U.S. labor industry, state that the "1979 GATT aircraft code . . . bans offsets or

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[102]Agreement on Trade in Civil Aircraft, 31 U.S.T. 619, T.I.A.S. No. 9620, 1186 U.N.T.S. 170 [hereinafter Civil Aircraft Code].

[103]*Id.* art. 4.3.

other procurement requirements."[104] They admit, however, that there are numerous "wiggle words" that might suggest that the provisions are not absolute. For example, signatories agree that purchases "should" be made on a competitive basis and that they will not impose "unreasonable" pressure to buy from a particular source.

Alternatively, some commentators believe these provisions do not bar offsets. According to Michael Levick, "the Aircraft Code . . . expressly allowed such pressure tactics."[105] These commentators point to the fact that countries have continued (and even increased) their use of offsets since becoming members to the Aircraft Code:

> In the 1980s and 1990s the Pacific Rim nations, along with other significant buyers of aircraft, have attempted to use their strong capital position as a means to bring the technology and jobs created from offset concessions to their developing civil aircraft industries.[106]

Even if the international community were to accept an interpretation prohibiting offsets, critics have complained that the agreement is ineffective because of the limited number of signatories. For example, the former Soviet Union and China are not members of GATT and have not signed the Civil Aircraft Code. In addition, the lack of transparency in transactions and the difficulties with enforcement pose additional obstacles. Since private manufacturers are dependent on their governments to represent their concerns within the WTO regime, it is left to governments to decide when or whether to assert manufacturer claims. Often, other diplomatic concerns may factor into these decisions.

b. E.C.-U.S. Interpretation

In 1992, the U.S. and the E.C. agreed to interpret the Civil Aircraft Code as prohibiting offsets. In the European Community-United States Agreement Concerning the Application of the GATT Agreement on Trade in Civil Aircraft in Trade in Large Civil Aircraft,[107] both parties concurred that the Civil Aircraft Code prohibits offsets. The legal basis for the interpretation was

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[104]*Jobs on the Wing* at 68 ("Many of the practices described in this study would appear to be in conflict with the letter and spirit of international trade law.").

[105]Michael J. Levick, *The Production of Civil Aircraft: A Compromise of Two World Giants*, 21 Transp. L. J. 434, 455 (1993) (footnotes omitted) ("Offset concession demands were commonplace in the industry as a means to gain technology and jobs for the buyer nation in exchange for the capital to develop aircraft.").

[106]*Id.*

[107]Agreement Concerning Application of the General Agreement on Tariffs and Trade to Trade in Civil Aircraft, Signed by the European Economic Community and the United States July 17, 1992, E.C.-U.S., 9 Int'l Trade Rep. (BNA) No. 30, at 1273 (July 24, 1992) [hereinafter E.C.-U.S. Interpretation].

Article 4.3 of the Civil Aircraft Code. As stated in the E.C.-U.S. Interpretation:

> By emphasizing that the only factors which should be involved in purchase decisions are price, quality and delivery terms, the signatories agree that Article 4.3 does not permit Government-mandated offsets. Further, they will not require that other factors, such as subcontracting, be made a condition or consideration of sale. Specifically, a signatory may not require that a vendor must provide offsets, specific types or volumes of business opportunities, or other types of industrial compensation.[108]

This statement seems to answer definitively the question of whether the Civil Aircraft Code was meant to prohibit offsets. The E.C.-U.S. Interpretation clarifies other areas as well. For example, it explains that "unreasonable pressure" is any action favoring products or suppliers or influencing procurement decisions by creating discrimination against suppliers from any other signatory.[109] It also explains that the Civil Aircraft Code prohibits "negative or positive linkages" between the purchase of civil aircraft and other government decisions or policies that might influence the purchase when there is competition between suppliers.[110]

Complications arise, however, when attempting to determine the reach of the E.C.-U.S. Interpretation. One problem is that it applies only between the U.S. and Europe. Countries that did not sign this Interpretation may not consider themselves bound, especially in light of the uncertain application of the Civil Aircraft Code. In this sense, E.C.-U.S. efforts to "clarify" the offset prohibition in another agreement demonstrate that offsets were not originally prohibited in the Civil Aircraft Code.[111] The E.C. and the U.S. decided to forego challenging this questionable use of offsets under the Civil Aircraft Agreement and instead proclaimed their intentions to expand their Interpretation to all WTO members.

c. Outlook for Future Negotiations

In the landmark 1994 Uruguay Round WTO negotiations, negotiators concluded a new multilateral Agreement on Trade-Related Investment Measures that attempts to clarify GATT's

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[108] *Id. Interpretation of Article 4 of the GATT Agreement on Trade in Civil Aircraft by Signatories of the Agreement.* art. 4.3.

[109] *Id.* art. 4.2.

[110] *Id.* art. 4.4.

[111] One potential response is that the E.C.-U.S. Interpretation did not create a new international obligation but merely repeated in more clear terms the original offset prohibition in the Civil Aircraft Code. Although signatories to the Civil Aircraft Code are not bound by the new E.C.-U.S. Interpretation, they remain bound by the original terms of the Civil Aircraft Code, which prohibit offsets, although perhaps not as clearly as the E.C.-U.S. Interpretation.

domestic content provision by further illustrating the types of measures it prohibits.[112] For example, the TRIMs Agreement prohibits requirements to purchase products of domestic origin or from any domestic source, whether specified by proportion of volume or value of local production.[113] It also prohibits WTO members from requiring that an enterprise's purchase of imports be limited to an amount related to the volume or value of local exports.[114]

Although the TRIMs Agreement may have clarified the GATT provision restricting governments from imposing domestic content restrictions to purely private transactions, it expressly retained GATT's exemptions, including the government procurement and national security provisions. In addition, although it prohibits many types of offsets that are based on domestic content restrictions, the Agreement never mentions or defines offsets specifically. As a result, there may be some dispute regarding whether certain types of offsets are prohibited by the terms of the Agreement.

In light of the fact that no further agreement was concluded on civil aircraft, Congress and the Administration agreed to outline potential goals for future civil aerospace negotiations in the Uruguay Round Agreements Act passed to implement the Uruguay Round of WTO trade negotiations.[115] In addition to discussing subsidies, transparency, and tariffs, it establishes that a primary objective for future negotiations is the elimination of nontariff barriers,[116] which include offsets. The legislation proposes doing this through expanding membership in the Civil Aircraft Code and the E.C.-U.S. Interpretation.[117] Unfortunately, this effort to "multilateralize" has produced no results. In fact, the E.C.-U.S. Interpretation itself may now be in jeopardy because its signatories pledged to reexamine its status if efforts to enlist additional signatories failed.[118]

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[112]Agreement on Trade Related Investment Measures, Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 14, 1994, 33 I.L.M. 1145 (1994) [hereinafter TRIMs Agreement].

[113]*Id.* Annex § 1.

[114]*Id.*

[115]Pub. L. No. 103-465.

[116]*Id.* § 135(c).

[117]*Id.* The Statement of Administrative Action submitted to Congress with the implementing bill reiterates this goal: "The United States will also seek to ensure that all WTO members, as well as countries applying for WTO membership, that are involved in the development, production, and integration of aerospace products undertake the obligations of the Agreement on Trade and Civil Aircraft."

[118]E.C.-U.S. Interpretation art. 12.3.

D. Worker Assistance Programs Are Insufficient to Respond to Effects of Offsets

Prior to the conclusion of an international agreement restricting the use of offsets, or in its stead if no agreement can be reached, worker assistance programs could provide mechanisms to retrain workers affected by offsets for employment in other fields or to supply financial security for workers unable to convert their skills. Although the worker assistance programs that have been created, amended, and eliminated over the past decade have attempted to provide broad training strategies and remedy industry problems, none has addressed specific problems related to offsets. Some believe only a comprehensive program of worker assistance can counter effectively the systemic changes now transforming the aerospace industry:

> Even the most effective set of international agreements, however, will not reverse the powerful trends that are increasing international collaboration in the military and civil aerospace industries. These trends may well increase the instability of aerospace employment and are likely to displace additional workers. Maintaining and liberalizing international trade in goods and technology in aerospace and other industries will remain difficult in the absence of a more coherent program of government assistance to aid workers (as opposed to their employers) in adjusting to the consequences of trade liberalization and economic change.[119]

Of the various programs developed to assist workers, most offer training assistance regardless of the reason workers are threatened with termination or layoffs. Only one, however, provides significant financial assistance, and this funding is provided only if workers can demonstrate their situations are a result of liberalized U.S. trade rules. Although no program specifically deals with the effects of U.S. companies sending jobs overseas to fulfill offset demands, one possibility open to policy makers is to review existing programs to evaluate whether they can be retrofitted to address these concerns.

1. Trade Adjustment Assistance and North American Free Trade Agreement Transitional Adjustment Assistance

Although the Trade Adjustment Assistance (TAA) program was designed to assist workers who are impacted negatively by the liberalization of U.S. trading policies, the extent to which it assists workers who suffer as a result of offsets is unclear.[120] The TAA was passed as part of the Trade Expansion Act 1962 and was developed to support workers through periods of unemployment due to U.S. efforts to lower trade barriers. Although the elimination of trade barriers was believed to benefit the U.S. economy generally, these programs were intended to

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[119]Mowery at 35.

[120]*See generally* Congressional Research Service, *Trade Adjustment Assistance: The Program for Workers* (January 3, 1996) (Rep. No. 94-801 EPW); *see also* Congressional Research Service, *Trade Adjustment Assistance: Proposals for Renewal and Reform* (July 22, 1998) (Rep. No. IB98023).

address the corresponding dislocations that might occur in certain industries. The TAA program has been amended several times, the last of which was in the Omnibus Budget Reconciliation Act (OBRA) of 1993, when its authorization was extended through 1998.

Under the TAA program, workers are eligible for cash payments after they exhaust their unemployment compensation. Workers still receiving unemployment compensation may receive employment services, such as placement counseling, vocational testing, job search assistance, and job placement assistance. In addition, workers can receive job training, as well as job search allowances and relocation allowances. To be eligible for benefits under the TAA program, the Department of Labor must investigate and certify that:

(1) a significant number of workers have lost (or are threatened with losing) their jobs;
(2) the firm's sales or production have decreased; and
(3) imports are in direct competition with the firm's products and have contributed importantly to the decline in sales or production.[121]

Because the TAA program was intended to provide assistance to workers who lose their jobs as a result of U.S. trade restrictions being lifted, it is unclear whether workers who lose their jobs as a result of offsets can benefit from these programs. The potential harm caused by foreign offset demands cannot necessarily be traced to the liberalization of U.S. trade rules. Of the criteria above, the requirement to demonstrate harm from imports is the most relevant to the issue of offsets. A hypothetical example helps illustrate this uneven application:

> *Example: Suppose a foreign country demands, as a condition of purchasing U.S. fighter planes, that a U.S. manufacturer purchase all of its laptop computers from a company in the foreign country's territory. As a result, the U.S. manufacturer cancels its laptop contract with its current U.S. laptop supplier, and the supplier lays off dozens of workers.*

In this example, the offset results in imports that enter the U.S. in direct competition with U.S. products, so the workers who were laid off may be eligible for TAA.

On the other hand, in the case of technology transfers or subcontracting arrangements, workers may not be able to qualify for TAA:

> *Example: Suppose a foreign country demands, as a condition of purchasing U.S. fighter planes, that a U.S. manufacturer utilize a subcontractor in the foreign country's territory. As a result, the U.S. subcontractor that previously worked with the manufacturer goes out of business.*

In this circumstance, the foreign country is not sending products to the U.S. These fighter planes were intended for the foreign country, and the offset arrangement allowed the foreign country to employ workers in its territory. Since there are no imports to the U.S. to compete with the former U.S. subcontractor's products, U.S. workers who are terminated as a result may not

[121] *See id.* at 6.

qualify for TAA.

An addition to the TAA program made in the 1993 OBRA was the NAFTA Transitional Adjustment Assistance (NAFTA-TAA) program.[122] In response to fear that NAFTA would bring widespread worker dislocation, Congress created this program to provide TAA benefits to workers who lost their jobs as a result of changes made pursuant to NAFTA. The most significant difference between TAA and NAFTA-TAA is that workers may qualify for NAFTA-TAA benefits by showing either the impact of imports or that U.S. firms have moved to Canada or Mexico.

Applying these criteria to the two examples above, workers in both situations may be able to qualify for NAFTA-TAA assistance. First, workers who lose their jobs as a result of the laptop offset could continue to claim direct competition with foreign imports. In the second example, workers could claim that their job loss is a result of U.S. manufacturers moving jobs to another country. Unfortunately, the NAFTA-TAA program extends assistance to the latter group of workers only if the manufacturers move jobs to Canada or Mexico. The Administration has recognized this disparity in the past and has proposed expanding the NAFTA-TAA eligibility criteria to all countries.

In addition to the uneven application of the TAA eligibility requirements to workers harmed as a result of offsets, a more practical obstacle is that authorization for this program expired on September 30, 1998. Although Congress previously extended authorization in 1993 for five years, and although the Administration had included funding for reauthorization in its FY 1999 budget proposal, no long term extension has been passed. In fact, authorization was defeated in the House of Representatives as part of a vote on "Fast Track" negotiating authority, and was not raised in the Senate. Recently, however, both houses of Congress passed the conference report providing funding for these programs through June 30, 1999.[123]

2. Economic Dislocation and Worker Adjustment Assistance

Unlike the TAA and NAFTA-TAAP programs, the Economic Dislocation and Worker Adjustment Assistance (EDWAA) program provides assistance to workers dislocated for any reason.[124] EDWAA is permanently authorized under Title III of the Job Training Partnership Act (JTPA) and provides four general categories of assistance:

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[122]*See generally* Congressional Research Service, *Adjustment Assistance for Workers Dislocated by the North American Free Trade Agreement* (Nov. 14, 1995) (Rep. No. 94-52 EPW).

[123]H.R. Conf. Rep. No. 825, 105th Cong. 2d Sess. (1998) [hereinafter 1999 Omnibus Appropriations Bill].

[124]The EDWAA and other Job Training Partnership Act (JTPA) programs are described in more detail in Congressional Research Service, *The Job Training Partnership Act: A Compendium of Programs* (Sept. 25, 1997) (Rep. No. 94-862 EPW).

(1) rapid response to impending or ongoing layoffs;
(2) basic readjustment, such as occupational skill testing, job and career counseling, and relocation assistance;
(3) retraining, including classroom, on-the-job, and remedial training; and
(4) limited income support.[125]

Although EDWAA includes some limited financial support, the program's primary focus is training workers and helping them find positions in different, but comparable fields.

Since eligibility for EDWAA is open to workers regardless of the cause of their dislocation, those who suffer as a result of U.S. companies submitting to foreign offset demands would be permitted to participate in its training programs. Wide categories of workers are eligible for EDWAA, including:

(1) workers who have lost their jobs (or have received termination notices) and are unlikely to return to their previous work;
(2) workers terminated (or with termination notices) as a result of a permanent closing or substantial layoff;

(3) long-term unemployed with limited opportunities for similar employment in their areas of residence; and
(4) self-employed workers unemployed as a result of general economic conditions or natural disasters.[126]

If workers fit into any of these categories as a result of foreign offset requirements, they may be able to access any of the assistance described above.

In addition, workers could be eligible for additional assistance through a separate, discretionary fund. The Secretary of Labor is directed under the EDWAA program to withhold 20% of the allotted funding for use in case of unforeseen circumstances.[127] Although some of this amount is designated for specific uses, grants could be directed toward workers displaced because of offsets. Since overall funding for EDWAA training programs has been increasing steadily over the past several years, this discretionary percentage also has been growing.

3. Defense Conversion Assistance

The Defense Conversion Assistance (DCA) program was designed specifically to assist workers who lost their jobs or were terminated because of defense downsizing. Although this program would have been uniquely suited to assist defense workers whose companies increase

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[125] *Id.* at 15-16.

[126] *Id.* at 16.

[127] *Id.* at 16-17.

foreign subcontracting through offset arrangements, it provided little cash assistance and its authorization has expired.

The DCA program was added as part of the Job Training Partnership Act by the National Defense Authorization Act for FY 1991.[128] Its objective was to extend to workers dislocated because of reductions in defense spending the same services and training assistance provided under EDWAA program. As mentioned above, EDWAA services include training and retraining programs, as well as counseling and other services, but provide limited cash assistance.

Although the services provided under the DCA program were substantially similar to EDWAA assistance, workers were required to demonstrate additional factors to qualify for this assistance. Besides EDWAA eligibility, workers were required to show that they were laid off, terminated, or received layoff or termination notices, as a specific result of reductions in defense spending, base closures, or fewer defense exports.[129] Workers were willing to demonstrate their enhanced eligibility, however, because DCA funds were provided in a separate, dedicated pool available only to workers who met these additional conditions. By contrast, EDWAA funds often were depleted relatively early in the year.

Since this program initially was intended to be a short-term remedy for downsizing during the early 1990s, it was authorized for only five years. Congress originally appropriated $150 million for this program in FY 1991, but this amount expired in 1997 and was not renewed.[130]

4. Defense Diversification Program

The Defense Diversification Program (DDP) was created as part of the JTPA by the Defense Authorization Act for FY 1993.[131] In addition to providing EDWAA-type assistance, the DDP program provided funds for upgrading skills of nonmanagerial employees, developing high performance workplace systems, encouraging participative management systems, and furthering employee participation in evaluation, selection, and implementation of new production technologies.

The DDP program extended eligibility to any of the following workers, so long as they were not entitled to retirement or retainer pay:

(1) members of the armed forces or National Guard on active duty or employed full-time on September 30, 1990, who were separated from duty involuntarily within

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[128] *Id.* at 19.

[129] *Id.*

[130] *Id.*

[131] *Id.*

the next five years;

(2) civilian employees of the Department of Defense and the Department of Energy terminated or laid off (or with termination or layoff notices) due to reductions in defense spending or closure or realignment of military installations within five years after October 1, 1992; and

(3) defense contractor employees terminated or laid off (or with termination or layoff notices) due to reductions in defense spending, closure or realignment of military installations, or fewer defense exports, within five years after October 1, 1992.[132]

This program funding also was intended to be a short-term remedy for the effects of defense downsizing. Although $75 million was originally appropriated in 1993, these funds expired the following year.

IV. RECOMMENDATIONS

A. Strengthen U.S. Policy by Establishing a High Level Offsets Commission

In 1990, GAO concluded that President Bush had failed to implement all of the requirements of the 1989 Defense Authorization Act. That law required the President, among other things, to establish a comprehensive offset policy addressing: (1) technology transfer; (2) U.S. financing of offset arrangements; and (3) the effects of offsets on specific subsectors of the U.S. industrial base. During the Clinton Administration, the interagency Trade Policy Coordinating Committee adopted a stronger statement concerning offset policy, but it remains effectively a policy of noninvolvement. In order to address adequately the differing concerns of those affected by offsets, Congress should establish a commission, composed of representatives of government, all affected industry sectors, labor, and academia, to review current offset policy, recommend modifications to the current policy, and propose a coordinated plan for the reduction of detrimental effects of offsets.

B. Enhance Information Gathering

1. Require that Relevant Offset Documentation Be Provided to BXA

Firms in the U.S. routinely supply foreign governments with detailed information on fulfillment of their offset obligations. Congress should require that copies of all such information and all offset transaction papers be provided to the Bureau of Export Administration. Because such information may contain confidential or proprietary information, it should be retained as confidential material and used in the aggregate to more accurately assess the impact of offsets on employment, suppliers, and the broader industrial base.

2. Require Reporting on Offsets in Civil Aerospace Sales

Currently, U.S. manufacturers are required to report only offset agreements related to

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[132] *Id.* at 20.

defense aerospace products. In the interest of further understanding the impact and trends of offsets in civil aerospace transactions, companies should be required to provide information on these types of offset arrangements, as well. Legislation applying the defense reporting requirements, as modified above, to civil aerospace manufacturers would accomplish this objective.

C. Increase Protection in International Agreements

In order to address the lack of an international offset control regime, the U.S. must definitively conclude its attempts to establish domestic consensus. The issue should not be whether to pursue international negotiations, but how best to bring them about. Congress should enhance the prospects for stronger international agreements by enacting legislation that encourages the Administration to negotiate international agreements that prevent the use of offsets. As discussed below, there are numerous upcoming opportunities available to the Administration for concluding such agreements. Ideally, such legislation also should encourage clarification of existing agreements and should establish, or require the Administration to establish, timelines for demonstrating concrete progress on offsets.

1. Transatlantic Economic Partnership

The Transatlantic Economic Partnership (TEP) agreement is a "joint statement" that was issued in May of 1998 by the U.S. and the European Union proclaiming each party's intent to work together to reduce trade barriers bilaterally in a variety of areas and to cooperate with each other in upcoming rounds of WTO negotiations. On the agenda is government procurement, both with respect to bilateral and multilateral relations. Although there is no specific mention of the use of offsets, both sides agreed to establish a "Plan" to identify areas for common action, with a timetable for achieving specific results. Both sides also agreed to take all necessary steps to allow rapid implementation of the Plan, including any necessary authority to start negotiations. The European Union has submitted its draft of the Plan, and U.S. agency officials are working on a response. The U.S. response should propose including offsets on the TEP agenda.

2. Future WTO Negotiating Rounds

Perhaps the most appropriate fora for discussions on limiting the practice of offsets are future rounds of WTO negotiations. Successful negotiations in this arena would provide the type of breadth that would protect manufacturers from losing business to companies from countries that do not prohibit offsets. As one potential negotiating forum, the WTO Government Procurement Committee is now in the process of debating interpretations to various parts of the Government Procurement Agreement. The consideration of offsets should be proposed there and during other upcoming WTO negotiations.

3. Focused Country-Specific Negotiations

In addition to broad multilateral negotiations, additional opportunities may arise to influence the offset policies of key countries. For example, China's desire to become a member

of the WTO will be conditioned on significant reforms and other measures decided upon by WTO members. Although there may be numerous other agenda items for WTO members considering China's accession, the reduction or elimination of offsets should be added to this list. This emphasis would not be misplaced since China currently has the world's fastest-growing air travel market.[133] These focused negotiations may be able to pinpoint affected industry sectors and offset offenders.

4. Multilateral Agreement on Transparency in Government Procurement

The Department of Commerce and USTR are working jointly within the Government Procurement Committee toward a potential multilateral agreement on increased transparency measures in government procurement. Unlike plurilateral WTO pacts, this agreement would be binding on all WTO members as a multilateral agreement. Although this would not be a long-term solution to the problem of offsets, it may inform the debate further by illuminating the factors on which government procurement transactions are based.

5. E.C.-U.S. Interpretation of the Civil Aircraft Code

As an alternative or supplement to efforts to negotiate new international agreements, the U.S. could achieve important restrictions on offsets by clarifying the interpretation of existing agreements. For example, only the E.C. and the U.S. currently interpret the Civil Aircraft Code to prohibit governments from demanding offsets in civil aerospace transactions. Although both signatories agreed that they would encourage other countries to adopt their interpretation, efforts to "multilateralize" have been unsuccessful to date. The U.S. should explore other ways to persuade countries to adopt the E.C.-U.S. Interpretation.

6. Indirect Offsets and Scope of National Security Exemption

Although it is clear that indirect offset arrangements do not technically further essential

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[133]Mowery at 29-30. Mowery writes:

> As China's economy continues to grow rapidly, demand for air travel in China is projected to grow more rapidly than any other market. At present, entry into the Chinese market is closely controlled by the central government, and foreign manufacturers of commercial aircraft face significant demands for direct and indirect offsets. Since overt government pressure for various types of performance requirements in civilian products is subject to disciplines under the WTO's Uruguay Round accords, the terms under which China is allowed to join the WTO may constrain these demands for offsets. Successful demands by Chinese negotiators for lengthy transition periods in meeting provisions of the WTO agreement, however, could mean that demands for offsets will remain intense for the next two decades.

Id.

national security interests, they often are justified on these grounds. In light of the recent increase in indirect offsets, the objective of curtailing this practice has gained prominence and urgency. In addition to raising this argument in formal dispute settlement mechanisms, the U.S. should pursue a limited, clarifying statement explaining that indirect offsets are not permissible under the national security exemption. A key component of this strategy would be ensuring wider adoption of the Government Procurement Agreement, as well as its application to at least some defense aerospace equipment.

D. Address Worker Dislocation Programs as They Relate to Offsets

Congress should address the effects of worker dislocation and termination resulting from foreign offset demands not only by attempting to negotiate an international agreement but also by providing worker assistance programs to employees who are affected adversely by offsets. A brief analysis of these programs suggests several alternatives:

1. Reauthorize the TAA and NAFTA-TAAP Programs and Cover Workers Displaced Because of Foreign Offsets

The TAA and NAFTA-TAAP are the most significant financial assistance programs for U.S. workers. Authorization for these programs, however, expired on September 30, 1998. In order to assist U.S. aerospace workers, Congress could reauthorize these programs. In addition, Congress could cover more workers affected by foreign offset demands by adopting the Administration's proposal to extend TAA eligibility criteria to workers who suffer from firm relocation to any country, rather than to Mexico and Canada alone, as in the NAFTA-TAA program.

2. Prioritize the Secretary of Labor's EDWAA Discretionary Fund

Only 80% of EDWAA funding is dispersed directly through specified statutory training programs. The remaining 20% is allotted to a discretionary fund the Secretary of Labor may use for unforeseen circumstances. By further prioritizing this discretionary fund by statute, Congress could ensure that additional funding is directed toward workers who are dislocated as a result of foreign offset demands. One benefit of this option is that it would require no additional federal outlay of resources since funds already are authorized and appropriated. As mentioned, however, benefits are more limited and rely on training over cash assistance.

3. Create a New Program to Address the Specific Effects of Foreign Offset Demands on U.S. Workers

As part of a comprehensive legislative response to offset-related employment problems, Congress could consider creating a new training and support assistance program for the specific benefit of workers directly affected by foreign offset demands. Rather than reviving or amending the DCA and DDP programs, Congress could examine these programs as models that extended training and resource benefits to specific industries and workers. Although it currently may be difficult to isolate the effects of offsets on particular sectors, firms, or workers, a system that

operates in conjunction with enhanced reporting requirements may help provide additional transparency in these transactions and help identify workers displaced because of foreign offset requirements.

Mr. TIERNEY. Thank you.

The report includes a number of findings and recommendations. One finding was that the U.S. offset policy, a policy now of non-involvement, is weak. The report recommended that the U.S. policy be strengthened by establishing a high-level offsets commission composed of representatives of government, affected industry sectors, labor, and academia to review current offset policy and to propose a plan for the reduction of the detrimental effects of offsets. I have made available copies of the report.

In addition to the report, I was interested to learn the views of the executive branch, including the agencies that are part of the defense offset working groups. Toward that end I wrote to President Clinton, Secretary of Defense William Cohen, United States Trade Representative Charlene Barshefsky, Secretary of Commerce William Daley and Secretary of the Treasury Robert Rubin urging them to establish, as a primary goal, international trade negotiations, the elimination of offsets imposed by foreign governments on defense and civil aerospace contractors.

From the responses that I received, it seems apparent that there is no consensus in the executive branch on the adverse effects of defense offsets. A representative from the Department of Defense wrote to me that although we agree that offsets are market-distorting, the net effect of offsets in trade is unclear. A response from the Office of the U.S. Trade Representative indicated that although these agreements have led to increased foreign participation in the manufacture of U.S. defense equipment, such as aircraft engines, they have also led to the sale of U.S. equipment to foreign military agencies that would not otherwise have been purchased. Secretary Daley and a representative from the Department of State wrote to me in support of a reduction in the distorting influence of offsets on trade. Finally, a representative from the White House informed me of efforts to reach a domestic consensus on offsets.

Chairman Mica, I would like to request unanimous consent to submit the agency responses to my letter.

Mr. MICA. Without objection, so ordered.

[The information referred to follows:]

APR 28 99

THE WHITE HOUSE
WASHINGTON

April 26, 1999

Dear Representative Tierney:

Thank you for your letter to the President on foreign offsets in defense and aerospace trade. On behalf of the President, who shares your concern that offsets could harm the U.S. economy and our nations' workers; the Administration has several efforts underway to help address this issue.

The National Economic Council has sponsored a series of workshops on trends and challenges in aerospace offsets. The objective of the workshops was to bring together policy makers, labor representatives, and industry to share views, which in turn could assist the Administration in reaching a domestic consensus.

A U.S.-EU Transatlantic Partnership (TEP) subcommittee on government procurement has put forth a proposal that the U.S. and the Europeans establish an offsets negotiating working group. Both sides have now agreed to this endeavor and the U.S. team will comprise representatives from the Departments of Commerce, Defense, Labor, State and the U.S. Trade Representative. Labor and industry will be consulted once the negotiations begin.

In addition, an interagency group with the above agency representatives have initiated consultations with the Canadians and the Dutch on offsets in defense trade because of our historic ties with these countries. We also plan to consult labor and industry as we proceed with these discussions.

We appreciate your leadership on this issue and look forward to hearing from you as we move forward.

Sincerely,

D. Holly Hammonds
Special Assistant to the President
for International Economic Affairs

The Honorable John F. Tierney
House of Representatives
Washington, D.C. 20515

MAR 2 2 1999

United States Department of State

Washington, D.C. 20520

MAR - 8 1999

Dear Mr. Tierney:

Thank you for your letter of January 15, to Secretary Albright concerning offsets imposed by foreign governments on defense and civil aerospace contractors.

The Department of State shares your concern that foreign offset requirements introduce harmful distortions in the trade of defense and civil aerospace products. To reduce the negative effects of such requirements, the Department endorses and will fully participate in discussions led by the Department of Defense with foreign governments regarding offset requirements. In addition, we support efforts to address trade distortions arising from foreign offset requirements through the Transatlantic Economic Partnership process.

We hope our efforts help resolve this issue. Please contact us if we can be of further assistance.

Sincerely,

Barbara Larkin

Barbara Larkin
Assistant Secretary
Legislative Affairs

The Honorable
John F. Tierney,
House of Representatives.

MAR 04

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

FEB 23 1999

The Honorable John F. Tierney
House of Representatives
Washington, D. C. 20515

Dear Representative Tierney:

Thank you for your letter regarding offsets in defense and civil aerospace trade. The Department has long shared your concerns about the adverse impact of offsets on the U.S. industrial base.

As you know, the Commerce Department's Bureau of Export Administration (BXA) has monitored offsets in defense trade for more than a decade and has prepared an annual report to Congress on the topic since 1996. The BXA reports and those of the Trade Promotion Coordinating Committee have called for international discussions to reduce the adverse impact of offsets.

We have taken steps in this direction. BXA and the Department's International Trade Administration are both actively involved in discussions with the European Union as part of the ongoing Transatlantic Economic Partnership effort, through its Working Group on Procurement. The Commerce Department has called for the creation of an interagency subgroup devoted to offsets; this idea has been presented to the Europeans, and we await their response.

In addition, BXA has spoken informally with Canadian representatives to see what headway we can make in reducing offsets. We will meet with Canadian representative agencies later this month. As our closest neighbor and largest trading partner, and because of its role in the North American defense industrial base, Canada must play an important role if we are to make progress on this issue.

Thank you for your support. If you have any questions regarding the Commerce Department's efforts on offsets, please have your staff contact Rosemary Warren, Director of Congressional and Public Affairs for the Bureau of Export Administration, at (202) 482-0097.

Sincerely,

William M. Daley

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

ACQUISITION AND
TECHNOLOGY

FEB 16 1999

Honorable John F. Tierney
House of Representatives
Washington D.C. 20515

Dear Congressman Tierney:

Thank you for your letter to Secretary Cohen on offsets imposed by foreign governments on defense and civil aerospace contractors dated January 15, 1999.

The Department of Defense fully supports the policies articulated by the Congress and the Administration concerning the need to negotiate with friendly and allied governments to eliminate the harmful effects of offsets in defense trade. My office has the lead for DOD in these matters and has been actively engaged in discussing offsets with key allies during our regular meetings on reciprocal defense procurement activities. In addition, we have co-sponsored seminars organized by independent organizations such as the National Research Council to better understand and deal with the complex and growing world of offset demands in international trade.

Most recently, we have initiated action to lead an inter-agency team, including representatives from the Departments of State, Commerce, Labor and Defense that will meet bilaterally with officials from Canada and the Netherlands within the next few weeks on the subject of the harmful effects of offset demands in defense trade.

While we agree that offsets are market distorting, the net effect of offsets on trade is unclear. A recent General Accounting Office review related to offsets found that the value of the export sale, in the transactions examined, greatly exceeded the value of the work placed overseas to satisfy offset demands. Nevertheless, we intend to continue and expand discussions with our allies on offsets to limit the adverse effects of offset requirements.

Sincerely,

Dave Oliver
Principal Deputy

APR 15 9

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

SECRETARY OF THE TREASURY

April 13, 1999

The Honorable John F. Tierney
U.S. House of Representatives
Washington, DC 20515

Dear John:

Thank you for your letter and report from the Minority Staff of the Committee on Government Reform and Oversight, requesting that the Administration negotiate an end to offsets in foreign government contracting.

While we have carefully reviewed this issue, USTR and the Department of Defense have the negotiating authority over civil and defense-related trade agreements. For additional information on the future direction of U.S. negotiations on offsets, I encourage you to contact those agencies.

Thank you again for writing.

Sincerely,

Robert E. Rubin

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

MAR 2 1999

The Honorable John F. Tierney
U.S. House of Representatives
120 Cannon
Washington, D.C. 20515

Dear Congressman Tierney:

Thank you for your recent letter in which you urge the Administration to make the elimination of offsets to defense and civil aerospace trade a negotiating priority. We also appreciate receiving the minority staff report, conveyed with your letter, on "Foreign Offset Demands in Defense and Civil Aerospace Transactions."

We are keenly aware of the contributions that the aerospace industry makes to our exports and to high value-added, high-wage employment in this country. The vitality of the aerospace industry is essential to the health of the U.S. economy. We, therefore, actively participated in discussions of offsets to aerospace exports held within the interagency Working Group on Aerospace Employment under the leadership of the National Economic Council and in the Trade Promotion Coordinating Committee, chaired by the Secretary of Commerce.

With respect to offsets in defense trade, this is primarily under the purview of the Department of Defense. Foreign governments typically utilize offsets, which may include countertrade, technology transfer, foreign component use or assembly, as a requirement for the purchase of U.S. equipment. Under the authority provided by the Congress to waive "Buy-American" procurement preferences, the Department negotiates memoranda of understanding with allied and friendly governments in order to stretch Western defense budgets through the promotion of the standardization of defense equipment among our military forces. Although these agreements have led to increased foreign participation in the manufacture of U.S. defense equipment, such as aircraft engines, they have also led to the sale of U.S. equipment to foreign military agencies that would not otherwise have been purchased. Most of the memoranda of understanding now contain articles committing the parties to limit the adverse effects that may flow from these offsets to the defense industrial base. The U.S. Defense Department, under established policy, will no longer accept the obligation of the fulfillment of offset commitments to foreign governments contained in contracts entered into by private U.S. contractors.

The interagency Trade Promotion Coordinating Committee last year recommended that, after consultations with U.S. industry and labor, the Administration explore with our foreign trading partners ways of curbing any adverse impact of military offsets on the industrial base. Commerce Under Secretary Reinsch has been testing the interest of our trading partners in addressing the offsets issue through negotiations.

With regard to offsets to trade in civil goods, the WTO Agreements contain several provisions which currently provide some discipline over this matter. These provisions include Article III of GATT 1994 on national treatment, the Agreement on Government Procurement, the Agreement on Trade Related Investment Measures, and the Agreement on Trade in Civil Aircraft. Consistent with your advice, we are also seeking to negotiate enhanced coverage and greater discipline in several of these areas in the course of the new round of WTO negotiations that would hopefully be launched during the Seattle ministerial meetings this fall. In addition, we are seeking discussion regarding offsets with the European Union in the Trans-Atlantic Economic Partnership.

We greatly appreciate receiving your views on this matter to which we both attach great importance.

Sincerely,

Charlene Barshefsky

Mr. TIERNEY. Thank you. I also believe it would be useful for the government to have more detailed information on the particulars of offset agreements. Toward that end, I am pleased that H.R. 973, the Security Assistance Act, which recently passed the House, contains additional reporting requirements. I know, in fact, that the Senator has also made an effort in the Senate to have those reporting requirements put into law. Section 204 contains additional reporting requirements on offsets regarding government-to-government sales and commercial sales. Specifically, if known on the date of transmittal of such certification, a description of the offset agreement may be included in the classified portion of such number certification. Thus the information would remain confidential and would not jeopardize American business interests. This is a positive step toward an effort to obtain additional information on the specifics of offset agreements.

Mr. Chairman, I strongly believe that we need a national consensus on offsets and that we should have a firm national offset policy that allows our defense contractors to sell their equipment abroad, particularly to our allies, while at the same time ensuring that American defense workers and small businesses that do out-source work from these people in the industry, the manufacturers, to allow them, some of the best workers in the world, to make sure that they are not sacrificed in the quest to make the sale and seal the deal.

Again, I want to thank you, Chairman Mica, for examining further the issues of the offsets, and I want to commend you and the staff of the subcommittee for holding this hearing today. Thank you.

[The prepared statement of Hon. John F. Tierney follows:]

Opening Statement of U.S. Representative John F. Tierney
Subcommittee on Criminal Justice, Drug Policy, and Human Resources
"Defense Offsets: Are They Taking Away Our Jobs?"
June 29, 1999

Chairman Mica, I thank you for holding this hearing on defense offsets. I would also like to thank Senator Feingold for taking the time to share with us his experiences with defense offsets in his home state of Wisconsin, and I thank our other distinguished witnesses from the Administration, the defense industry, and the labor community.

Most people are not familiar with defense offsets - how they work, why we have them, and what they are intended to do - although many businesses and employees are impacted -- many times adversely -- by the use of defense offsets. And this phenomenon takes place regardless of whether the business or worker is in the defense industry.

For those of you not familiar with the topic, offsets are the conditions sought by foreign governments in their negotiations for purchase of U.S. defense equipment. More often than not, these stipulations require U.S. manufacturers, as a condition of doing business with these foreign governments, to transfer taxpayer-funded defense technologies, make direct investments in foreign companies, purchase foreign-made components, or provide other forms of assistance.

These offsets or "sweeteners" range from direct offsets, such as exporting jobs overseas for subsequent subcontracting, to indirect offsets, such as buying furniture from foreign manufacturers at higher prices than those offered by American companies.

I became interested in defense offsets from listening to small businesses and contractor employees prior to my election in 1996. In November 1997, a defense contractor located in my district won a foreign military sales contract to produce 104 military fighter engines for the Korean KTX-2 Advanced Trainer/Light-Fighter aircraft. This contract was well received locally by me, the defense contractor and the men and women who would be doing the work. However, a few weeks later, it was related to me that the defense contractor revealed the other side of the story to its workforce. As part of an offset agreement, only the first 25 of the 104 engines would be fully-made in the United States; the next 10 engines would be made with U.S. parts, but 100% of the engines would be assembled, inspected and tested in Korea; and the final 69 engines would consist of 70% U.S. parts, 30% Korean parts, and would be completely assembled, inspected, and tested in Korea.

As you can imagine, euphoria quickly faded and turned disappointment as we learned these facts. People simply could not understand why a defense contractor would allow this important engine work to be performed abroad with foreign components and foreign workers. But we now know that despite making the finest military equipment in the world, U.S. defense contractors say they are forced to make these offset deals with foreign governments or else run the risk of losing a defense contract to another foreign country that is willing to agree to such an arrangement. As we looked into the issue, we learned that some offset deals are more than 100% of the total contract price.

To learn more about defense offsets, I requested the minority staff of the Committee on Government Reform to look into the issue of offsets. The result was a report entitled, *Foreign Offset Demands in Defense and Civil Aerospace Transactions.* Chairman Mica, at this time, I would request unanimous consent that the report be entered into the record.

(Thank you.)

The report includes a number of findings and recommendations. One finding was that U.S. offset policy, a policy of non-involvement, is weak. The report recommended that U.S. policy be strengthened by establishing a high-level offsets commission, composed of

representatives of government, affected industry sectors, labor, and academia, to review current offset policy, and to propose a plan for the reduction of the detrimental effects of offsets. I have made available copies of the report for anyone who may be interested in reviewing it.

In addition to the report, I was interested to learn the views of the executive branch, including the agencies that are part of the defense offset working groups. Toward that end, I wrote to President Clinton, Secretary of Defense William Cohen, United States Trade Representative Charlene Barshefsky, Secretary of Commerce William M. Daley, and Secretary of the Treasury Robert E. Rubin, urging them to establish as a primary goal in international trade negotiations the elimination of offsets imposed by foreign governments on defense and civil aerospace contractors.

From the responses that I received, it seems apparent that no consensus exists in the executive branch on the adverse effects of defense offsets. A representative from the Department of Defense wrote to me that "although we agree that offsets are market distorting, the net effect of offsets on trade is unclear". A response from the office of the United States Trade Representative indicated that "although these agreements [offsets] have led to increased foreign participation in the manufacture of U.S. defense equipment, such as aircraft engines, they have also led to

the sale of U.S. equipment to foreign military agencies that would not otherwise have been purchased." Secretary Daley and a representative from the Department of State wrote to me in support of a reduction in the distorting influence of offsets on trade. Finally, a representative from the White House informed me of efforts to reach a domestic consensus on offsets. Chairman Mica, I would like to request unanimous consent to submit the agency responses to my letters for the record.

(Thank you.)

I also believe that it would be useful for the government to have more detailed information on the particulars of offset agreements. Toward that end, I am pleased that H.R. 973, the Security Assistance Act, which recently passed the House, contains additional reporting requirements. Section 204 contains additional reporting requirements on offsets regarding government-to-government sales and commercial sales. Specifically, if known on the date of transmittal of such certification, a description of the offset agreement may be included in the classified portion of such numbered certification. Thus, the information would remain confidential and would not jeopardize American business interests. This is a positive step forward in efforts to obtain additional information on the specifics of offset agreements.

I strongly believe that we need a national consensus on offsets, and that we should have a firm national offset policy that allows our defense contractors to sell their equipment abroad particularly to our allies, while at the same time ensuring that American defense workers--some of the very best workers in the world--are not sacrificed in the quest to make the sale and seal the deal.

Again, I thank you Chairman Mica for the opportunity to examine further the issue of defense offsets, and I wanted to commend you and the staff on the Subcommittee on Criminal Justice, Drug Policy, and Human Resources for holding this hearing today. Thank you.

Mr. MICA. I thank the gentleman from Massachusetts and am pleased to proceed with our first panel. Our first panel consists of our colleague and distinguished Senator Russell Feingold from Wisconsin. I believe he is on the Budget, Foreign Relations Committee, Judiciary and Special Aging Committee in the Senate. We are so pleased to have you come across and provide us with your testimony and comments on this important issue. Welcome, and you are recognized, sir.

STATEMENT OF HON. RUSSELL D. FEINGOLD, A U.S. SENATOR FROM THE STATE OF WISCONSIN

Senator FEINGOLD. Thank you, Mr. Chairman, for holding this hearing on the subject, and I want to thank Representative Tierney for his interest on this subject and his efforts to stimulate public discussion. He is so devoted to this, when he and I were stuck on an airplane waiting on the runway for several hours in Boston, he pursued this subject with me, and we renewed our commitment to doing this, although I did not make it to the vote that day. I stayed on the runway for quite a few hours. I do admire very much how quickly the Representative has become a major force on this issue, and I thank him for asking me to be here today.

As you may know, I first became involved in the offsets issue in February 1993, when I learned that a Wisconsin-based company, the Beloit Corp., a subsidiary of Harnischfeger Industries, Inc., had been negatively affected by an apparent indirect offset arrangement between an aerospace contractor, the Northrop Corp., and the Government of Finland. Beloit was one of only three companies in the world that produce this particular type of large papermaking machine. In its efforts to sell one of these machines to the International Paper Co., Beloit became aware that Northrop had offered International Paper an incentive payment to select, instead the machine offered by a Finnish company, Valmet, not the Wisconsin company. Northrop was promoting the purchase of the Valmet machinery as part of an agreement that would provide dollar-for-dollar offset credit on a deal with Finland to purchase 64 F–18 aircraft. This type of payment had the flavor of a kickback, distorted the practice of free enterprise, and I think, threatened U.S. jobs.

By lowering its bid, and thereby only barely breaking even on the contract, to take into account the incentive payment offered by Northrop, Beloit still did succeed in winning the contract. Nevertheless, for me, the incident demonstrated the potential for offset obligations to have an impact on apparently unrelated domestic industries, as the chairman mentioned. I became concerned that this could happen anywhere, in any industry, in the future without being recognized, much less remedied.

Mr. Chairman, one of the first things I did as a new Member of the Senate in 1993 was to offer an amendment to the Arms Export Control Act to prohibit incentive payments in the provision of an offset credit. I wanted to clarify the congressional disapproval of an activity that appeared to fall through the cracks of various existing acts. Neither the Anti-Kickback Act nor the Foreign Corrupt Practices Act seemed clearly to address the payment being offered to International Paper in the Beloit case. My provision, which was enacted into law in 1994, prohibits the use of third-party incentive

payments to secure offset agreements in any sale that is subject to the Arms Export Control Act. The measure also expanded the requirements for congressional notification of the existence and, to the extent possible, the details of any offset agreement at the time of notification of a pending arms sale under the Arms Export Control Act.

Recognizing, too, that not enough information was available, I also initiated a request for a GAO review of the use of offsets in defense trade. I believe all of the members of the subcommittee received a copy of the most recent of the GAO studies, which is entitled Defense Trade: U.S. Contractors Employ Diverse Activities to Meet Offset Obligations. This was released in December 1998. Mr. Chairman, I ask unanimous consent that the text of that study be entered into the record following my remarks.

Mr. MICA. Without objection, so ordered.

Senator FEINGOLD. Thank you, Mr. Chairman.

Last year I offered additional language to expand further the prohibition of incentive payments and enhance the reporting requirement on offsets to include a description of the offset with dollar amounts. While my provisions were incorporated in the Security Assistance Act of 1998 as passed by the Senate Foreign Relations Committee, the legislation never made it to the floor. I was pleased, however, to see the House pass similar, if not identical, language in H.R. 973, which is your version of the Security Assistance Act of 1999.

Unfortunately, Mr. Chairman, while Congress has tried to address specific problems encountered by companies in our States and districts, efforts to date have barely scratched the surface of the difficult subject of offsets. In fact, neither the legislative nor the executive branches have a full grasp of the breadth and complexity of the issue, but I know that all of us are deeply concerned about the potential impact of the use of offsets.

I believe we have to focus on several broad issues related to the current and potential consequences of offsets; first, the impact on the domestic labor force and defense industrial base, particularly in the aerospace industries, of the increasing role of overseas production in the defense industries; second, the unintended harm to domestic nondefense industrial sectors as experienced by the Beloit Corp. of Wisconsin, when defense contractors engage in indirect offset obligations; third, the broad economic implications of the globalization of the defense industry; and fourth, the national security ramifications of joint ventures and growing reliance on foreign defense contractors, a concern, Mr. Chairman, that was recently highlighted in the Cox report on China's technology acquisition.

Mr. Chairman, we must tread carefully and seek a balance between the need for our defense industry to remain competitive in world markets and the potential loss of jobs and industrial capacity down the road due to the transfer of technology and the encouragement of overseas production capabilities. The perceived inevitability of globalization is not an excuse for us to avoid dealing with the hard issues.

I have had the opportunity to review a number of thoughtful proposals that touch on my concerns about offsets. I think we all agree that greater transparency and monitoring are essential to fully un-

derstand the offsets issue. In that context, I believe that there are three key elements to effective handling of offsets: first, information; second, discussion; and, third, international cooperation.

First, information. To fully understand the implications of offsets and the breadth of their impact, we must have more information on offset agreements, particularly the indirect offset obligations that are otherwise invisible. Although I recognize the need to protect the genuine proprietary information of defense contractors, we must seek greater transparency in the process through which contractors negotiate and fulfill offset obligations so that we may better analyze the possible downstream consequences. While many of us can cite anecdotal evidence of companies harmed or jobs lost, we have to develop a more effective mechanism to accurately quantify the impact of offsets. Unfortunately, the work that has been done so far is insufficient.

Second, discussion. There needs to be broader public awareness and debate on the implications of offsets. I believe this hearing is an important step in that direction. Beyond these efforts, I support the concept of a national commission to analyze the implications for our economy and national security and to recommend potential policy alternatives. A commission can galvanize concerned parties and demonstrate our interest in achieving a broad and coherent strategy to combat the negative effect of offsets.

Finally, international cooperation. With international dialog and coordination, we can arrive at multilateral standards for the use of offsets in defense trade agreements. Whether you believe that offsets are merely an annoying, but standard business practice or you hold the view that they pose a major long-term threat to our labor force industries and national security, I believe it is possible to develop some common ground for business practices worldwide. Through the Group of Eight, Wassenaar Arrangement, the World Trade Organization and other organizations, we have established multilateral venues designed specifically to deal with international trade issues. Certainly, one of these venues could serve as a forum for international cooperation to consider this global problem.

Mr. Chairman, let me conclude by thanking your subcommittee for taking on this difficult subject. You have gathered some of the premier experts in the field for today's hearing, and I look forward to studying their testimony. I regret that I cannot stay for the rest of the hearing, but I believe all of our efforts today will contribute to the promotion of greater information, discussion and cooperation and help us tackle this difficult subject that may well be so critical to the future of American industry, trade and national security. I thank you very much for your courtesy.

[NOTE.—The report entitled, "Defense Trade, U.S. Contractors Employ Diverse Activities to Meet Offset Obligations," GAO/NSIAD–99–35, may be found in subcommittee files.]

[The prepared statement of Senator Feingold follows:]

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Senator Russell D. Feingold
Opening Statement
Subcommittee on Criminal Justice, Drug Policy, and Human Resources
Hearing on Defense Offsets
June 29, 1999

Mr. Chairman, Ms. Mink, and other members of the Subcommittee, I am pleased to join you for today's hearing on the important, if little understood, issue of defense offsets. I particularly want to commend Chairman Mica and Representative Tierney for their interest in the subject and their efforts to stimulate public discussion on this complex topic.

As you may know, I first became involved in the offsets issue in February 1993 when I learned that the Wisconsin-based Beloit Corporation, a subsidiary of Harnischfeger Industries Inc., had been negatively affected by an apparent indirect offset arrangement between an aerospace contractor, the Northrop Corporation, and the government of Finland. Beloit was one of only three companies in the world that produced a particular type of large paper-making machine. In its efforts to sell one of these machines to the International Paper Company, Beloit became aware that Northrop had offered International Paper an incentive payment to select instead the machine offered by a Finnish company, Valmet. Northrop was promoting the purchase of the Valmet machinery as part of an agreement that would provide dollar-for-dollar offset credit on a deal with Finland to purchase sixty-four F-18 aircraft. This type of payment had the flavor of a kickback, distorted the practice of free enterprise, and threatened U.S. jobs.

By lowering its bid – barely breaking even on the contract – to take into account the incentive payment offered by Northrop, Beloit did succeed in winning the contract. Nevertheless, the incident demonstrated to me the potential for offset obligations to have an impact on apparently unrelated domestic U.S. industries. I became concerned that this could happen anywhere, in any industry, in the future without being recognized, much less remedied.

Mr Chairman, to address some of the immediate concerns raised by Beloit's experience, in 1993 I offered an amendment to the Arms Export Control Act to prohibit incentive payments in the provision of offset credit. I wanted to clarify the Congress' disapproval of an activity that

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appeared to fall through the cracks of various existing acts. Neither the Anti-Kickback Act nor the Foreign Corrupt Practices Act seemed clearly to address the payment being offered to International Paper in the Beloit case. My provision, which was enacted into law in 1994, prohibits the use of third party incentive payments to secure offset agreements in any sale subject to the Arms Export Control Act. The measure also expanded the requirements for Congressional notification of the existence, and to the extent possible, the details of any offset agreement at the time of notification of a pending arms sale under the Arms Export Control Act.

Recognizing too that not enough information was available, I also initiated a request for GAO review of the use of offsets in defense trade. I believe all the members of this Subcommittee received a copy of the most recent of the GAO studies, *DEFENSE TRADE: U.S. Contractors Employ Diverse Activities to Meet Offset Obligations*, which was released in December 1998. I ask Unanimous Consent that the text of that study be entered in the record following my remarks.

Last year, I offered additional language to expand further the prohibition on incentive payments and enhance the reporting requirement on offsets to include a description of the offset with dollar amounts. While my provisions were incorporated in the Security Assistance Act of 1998 as passed by the Senate Foreign Relations Committee, of which I am a member, the legislation never made it to the floor. I was pleased, however, to see the House pass similar, if not identical, language in H.R. 973, your version of the Security Assistance Act of 1999.

Unfortunately, Mr. Chairman, while Congress has tried to address specific problems encountered by companies in our states and districts, efforts to date have barely scratched the surface of the difficult subject of offsets. In fact, neither the legislative nor the executive branches has a full grasp of the breadth and complexity of the issue, although I know all of us here are deeply concerned about the potential impact of the use of offsets.

I believe we must focus on several broad issues related to the current, and potential, consequences of offsets:

- The impact on the domestic labor force and defense industrial base, particularly in the aerospace industry, of the increasing role of overseas production in the defense industry;
- The unintended harm to domestic non-defense industrial sectors, as experienced by the Beloit Corporation in Wisconsin, when defense contractors engage in indirect offset obligations;
- The broad economic implications of the globalization of the defense industry; and
- The national security ramifications of joint ventures and the growing reliance on foreign defense contractors, a concern, Mr. Chairman, that was recently highlighted in the Cox report on China's technology acquisition.

Mr. Chairman, we must tread carefully, and seek a balance between the need for our defense industry to remain competitive in world markets and the potential loss of jobs and industrial capacity down the road due to the transfer of technology and the encouragement of overseas production capabilities. The perceived "inevitability" of globalization is not an excuse for us to avoid dealing with the hard issues.

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I have had the opportunity to review a number of thoughtful proposals that touch on my concerns about offsets. I think we all agree that greater transparency and monitoring are essential to fully understanding the offsets issue. In that context, I believe that there are three key elements to effective handling of offsets – information, discussion, and international cooperation.

First – information. To fully understand the implications of offsets and the breadth of their impact, we must have more information on offset agreements, particularly the indirect offset obligations that are otherwise invisible. Although I recognize the need to protect the genuinely proprietary information of defense contractors, we must seek greater transparency in the process through which contractors negotiate and fulfill offset obligations, so that we may better analyze the possible downstream consequences. While many of us can cite anecdotal evidence of companies harmed or jobs lost, we must develop a more effective mechanism to accurately quantify the impact of offsets. Unfortunately, the work that has been done so far is insufficient.

Second – discussion. There needs to be broader public awareness and debate on the implications of offsets. I believe this hearing is a good step. Beyond these efforts, I support the concept of a national commission to analyze the implications for our economy and national security and to recommend potential policy alternatives. A commission can galvanize concerned parties and demonstrate our interest in achieving a broad and coherent strategy to combat the negative effect of offsets.

Finally – international cooperation. With international dialogue and coordination we can arrive at multilateral standards for the use of offsets in defense trade agreements. Whether you believe that offsets are merely an annoying, but standard, business practice, or hold the view that they pose a major long term threat to our labor force, industries, and national security, I believe it is possible to develop some common ground for business practices worldwide. Through the Group of 8, the Wassenaar Arrangement, the World Trade Organization, and other organizations, we have established multilateral venues designed especially to deal with international trade issues. Certainly one of these venues could serve as a forum for international cooperation to consider this global problem.

Mr Chairman, on that note let me close out my remarks by again thanking your Subcommittee for taking on this difficult subject. You have gathered some of the premier experts in this field for today's hearing and I look forward to studying their testimony. I regret that I will not be able to stay for the rest of the hearing, but I believe all our efforts today will contribute to the promotion of greater information, discussion, and cooperation and help us tackle this difficult subject, that will be so critical to the future of American industry, trade, and national security.

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Mr. MICA. Thank you. We appreciate your leadership on this important issue and also your efforts to work with our colleagues on both sides of the Congress, the House and the Senate, to seek solutions and different approaches so we can have some of the things that you mentioned in your closing, the disclosure, the discussion and the international cooperation. We appreciate that. We realize that you have a time constraint.

Mr. Tierney.

Mr. TIERNEY. I thank you. I know that you have a time constraint, and I appreciate very much your participating this morning.

Mr. Chairman, before I forget, Mr. Kucinich was just here and asked that his remarks might be placed in the record.

Mr. MICA. Without objection, so ordered.

I am pleased that we have been joined by the gentleman from New York, the chairman of our International Relations Committee. Did you have an opening statement?

Mr. GILMAN. No, I just want to commend you, Mr. Chairman, for conducting this hearing in a very timely manner, and I think it is important that we take a good hard look at these considerations, and you have got a great panel, and we look forward to hearing from the panel.

Mr. MICA. I thank the gentleman.

I am pleased now to call our second panel. The second panel consists of Mr. Joel Johnson, vice president, International, Aerospace Industries International; Mr. Owen Herrnstadt, director, International Affairs, International Association of Machinists and Aerospace Workers; and Dr. Scott, international economist with the Economic Policy Institute. I am pleased to welcome all three of these panelists.

If you would stand, please, to be sworn.

[Witnesses sworn.]

Mr. MICA. The witnesses have answered in the affirmative.

I might also tell you, since I don't think that any of you have testified before our panel before, we run this timer. We give you 5 minutes and ask that your oral presentations be limited to that amount of time. By unanimous consent request we will be pleased to enter into the record any reports that you want to be part of the record.

With those comments, let me now recognize Mr. Joel Johnson, vice president, International, of the Aerospace Industries International. Welcome, and you are recognized.

STATEMENTS OF JOEL JOHNSON, VICE PRESIDENT, INTERNATIONAL, AEROSPACE INDUSTRIES INTERNATIONAL; OWEN HERRNSTADT, DIRECTOR, INTERNATIONAL AFFAIRS, INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS; AND ROBERT SCOTT, INTERNATIONAL ECONOMIST, ECONOMIC POLICY INSTITUTE

Mr. JOHNSON. Thank you. I gather that my mic is working. I will speak rapidly and in incomplete sentences to keep under my 5 minutes here.

I am testifying this morning on behalf of the Aerospace Industries Association, which is the trade association that represents the

producers of commercial and military aircraft, helicopters, missiles, et cetera. A couple of notes about the aerospace industry. We produced about $140 billion worth of product in 1998, about 3 percent of the U.S. industrial manufacturing activity. The industry currently employs about 860,000 Americans.

What is perhaps most remarkable about our industry is its continuous export performance. In 1998, we exported $64 billion worth of product. Our imports were $23 billion. That gives us a net of $41 billion in exports. That is the largest of any manufacturing sector.

I should point out these exports are critical to our industry. Ten years ago our total output was about what it was today in real terms. At that time, the government accounted for 60 percent of purchases of our production, and exports were about 24 percent. Primarily because of the rapid drop-off in defense procurement, today the government buys about 30 percent of our output; exports are 40 percent. All of our growth is in the export arena. We depend on those exports in order to keep our employment where it is today.

From an industry perspective, offsets are certainly a nuisance. Most of us would prefer to compete on the basis of quality and price of our primary product. That is what we do. We are not in the consulting, technology transfer, risk capital or trading business. However, just as in the commercial aerospace arena you have needed to find imaginative financing arrangements, in the military arena you need to find imaginative offset arrangements.

These obviously are not a new invention, but another form of the age-old practice of barter and countertrade. While they may be inefficient, I think one does need to step back and recognize that for every export, someplace, sometime there will be an import, or you are giving the stuff away, and when you have an import, somebody in the U.S. economy will be negativity affected. Overall, however, society benefits. Offsets don't change basic math. What they do is close the loop in a reasonably visible fashion.

I should note that offset requirements are not unique to dealing with overseas customers. When government spends taxpayer revenue, they often want more than just the product. In this country, our industries require domestic offsets, e.g., setasides, for small businesses, setasides for minority businesses, and you tend to spread the work around in as many districts and States as possible. Both informal and formal offset, in other words, is also true in this country. Similarly, when foreign governments spend their money, they want to see some jobs and a piece of the action in their couintry, even when they spend it overseas for foreign military products.

Let me jump forward perhaps to save time and note that there are really five things that we would like to see in government policy. First and foremost, and I think most people agree with us, you should not take unilateral measures through statute or regulation to control offsets, would which simply transfer jobs to our foreign competitors.

Second, direct offsets, we would agree, should not be allowed when a purchase is wholly financed by U.S. assistance on grant terms. Now, I should note that this is almost irrelevant. Today there are only two countries that receive grant military assistance, Israel and Egypt.

We certainly would support efforts by the United States to obtain multilateral accords on disciplining offset practices. I must admit, however, we are somewhat skeptical of the success of such efforts, mainly because I am not sure what are will willing to lay on the table ourselves. When we recently held a competition for a joint primary training aircraft for the United States Navy and Air Force, the winner was basically a Swiss aircraft. That aircraft will be built almost entirely in the United States, assembled in Wichita, probably 99 percent U.S. content. I suspect that had the Swiss Parliament said you can only buy that airplane if it is produced in Switzerland, the United States Congress would have suggested mildly where they could go with their demand, and we would wind up with a United States alternative. That is the real world. If you look at each of the U.S. DOD procurements, they are almost invariably all produced by a U.S. prime in the United States, not because of formal requirements, but that is because the U.S. system works for exactly the same reasons.

Fourth, in instances where the only competitors for our foreign contracts are United States firms, the government might place some useful role in arbitrating and limiting what our companies offer, but you have got to be very careful that you don't create foreign competitors or create domestic solutions to a country's procurement or increase the value, the actual quality of the offset, which is essentially what happened when the government stepped in in Korea and limited United States companies' offset offers. What happened is the quality of the offset offered went up considerably.

Finally, let's be very careful about how we collect and publish information on offsets. We don't have a problem sharing information with the U.S. Government on offsets. What we do have a problem with is providing a cookbook to our foreign competitors and to our customers as to what the best current offers are out there. The largest readers, I suspect, of an annual Commerce Department report on offsets are foreign embassies in Washington, DC.

In general, we tend to think that offsets are highly overrated issues. Let me note, for example, that DOD procurement went from $100 billion a year to $42 billion a year. Were DOD procurement at the same level today as it was 10 years ago, we would have 400,000 more workers. There is nothing in the offset realm that remotely touches on those kinds of numbers. That is the major impact, and we are not arguing that we ought to have a larger defense budget, we are arguing take a look at what is effective, the subcontractor base and the prime base, it has very little to do with offsets. It has to do with much larger trends.

In summary, I would say starting with offsets is probably the wrong starting point. If there are subsectors of our economy that are in trouble, we ought to find out what is wrong. My own guess is that you will find it has to do with underinvestment; it has to do with a variety of things of which offset may be a symptom, very seldom will be the cause. Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Johnson follows:]

OFFSETS RELATED TO MILITARY SALES:

Testimony by Joel L. Johnson
Vice President, International
Aerospace Industries Association
June 29, 1999
House of Representatives
Committee on Government Reform

Thank you Mr. Chairman:

I am testifying this morning on behalf of the Aerospace Industries Association, the trade association that represents the major manufacturers of commercial and military aircraft, helicopters, missiles, satellites, engines, and related aerospace subsystems. I am fully aware that offsets are an issue that is controversial, but one with which we in industry must cope if we are to continue making the foreign sales that are critical to maintaining our defense industrial base and the jobs of the workers that constitute that base.

A few notes about the U.S. aerospace industry might be helpful to put the offset issue in context. Aerospace has for a number of years been among the most dynamic and expansive of U.S. industries. In 1998 domestic and international sales by U.S. aerospace companies were about $140 billion, or about 3% of all U.S. industrial manufacturing activity. New orders for the year totaled about $124 billion, and the backlog of orders at year-end amounted to $204 billion. The industry currently employs approximately 860 thousand Americans.

The industry's export performance has been most remarkable, particularly when compared to that of other U.S. industries. In 1998 exports reached $64 billion, while imports of aerospace products amounted to about $23 billion. This means the U.S. trade surplus in aerospace products was roughly $41 billion, a continuation of a long-term trend of positive trade balances.

There are several factors that bear watching on the international horizon. Certainly the competition in aerospace and defense products has increased, with other countries, particularly in Europe, improving the range and quality of their products in recent years. Aerospace and defense have become the glamour industries of the eighties and nineties, with every industrializing country attempting to stimulate some domestic aerospace and/or defense capacity. This is particularly troubling in the defense arena, where there is a serious surplus capacity for military products in Europe, Russia, and the US, at precisely a time when other nations are attempting to build their own indigenous capacity.

As with other industries, there is also an increasing tendency towards internationalization or globalization of the aerospace and defense sectors. That is, U.S. companies depend for a large portion of their sales on foreign markets, and increasingly have found it useful to work with foreign companies on some projects, or to obtain components and technologies from off shore when it is economically advantageous to do so.

In the commercial aircraft and engine sector, the enormous cost of launching a new product has increasingly led to the formation of international partnerships in order to spread risk, obtain financing on more favorable terms, improve access to markets, and to obtain the best technology available or to avoid having to develop technology which already exists. Similar considerations have led the U.S. government to encourage cooperative military projects.

It is in this context that the question of offsets has arisen. For purposes of this review, we assume that offsets refer to the various conditions of sale that a foreign government imposes on U.S. and other vendors, which are in addition to supplying the desired military product. Such offsets may include direct offset related to the product sold (including coproduction or licensing activities related to the product being purchased), buybacks of parts or components from the purchasing country for use in the end item sold to other countries, including the U.S., and various forms of indirect offset.

We do not regard straight forward licensing or coproduction agreements which do not involve the sale of a product directly from the U.S. as being involved in this policy discussion. While there are certainly transactions which fall in a gray area, licensing or coproduction agreements on U.S. designed military products, that do not involve the sale of the end item from the U.S., are no more offset related than a U.S. owned automobile line in the UK or a U.S. owned or licensed electronics operation in Hong Kong.

From an industry perspective, offsets are certainly a nuisance. Most companies would much prefer to compete on the basis of the quality and price of their primary product. Our companies are generally not in the consulting, technology transfer, risk capital, or trading business. However, just as in the commercial aerospace arena it has become necessary to find imaginative means to help customers finance their aircraft, in international military business offsets have become a recognized part of doing business with most government customers.

It is useful to provide some perspective with respect to the overall offset issue, before addressing appropriate government policy with respect to such practices. Offsets are of course not a new invention, but at least in part simply another form of the age-old practice of barter and countertrade. While inefficient, it should be remembered that for every export a country makes, mathematically at some time and from some place there must be a corresponding import, unless a country is giving away the original export. That import will negatively affect some producer, but the society as a whole will generally benefit. Offsets in part close the trading loop in a bilateral and visible fashion, but they do not change the basic principles of trade.

Furthermore, countries could generally obtain independently much of what they gain through offsets in the way of technology transfer and indirect offset. The U.S. and other countries export billions of dollars of machinery a year; machinery that is used by purchasers to produce new or better products. Other companies specialize in providing customers with "turn-key" factories, tailor-made software, and consulting services for technology development, administration, and marketing. In general we applaud such exports of goods and services from the U.S., even when in the long run they help create competitors overseas.

Finally, it should be noted that offset requirements are not unique to dealing with overseas customers. American prime contractors for defense products are required to perform a number of activities for the U.S. government which are not demanded of commercial transactions. These include setting aside business for small and minority owned enterprises, adhering to unique cost accounting standards, meeting military specifications which may have no relationship to commercial markets, and assuring the widest geographic spread of subcontracts and vendors consistent with meeting price and quality standards.

Furthermore, when DoD makes a major purchase of a foreign designed weapons system, it almost always demands that it be wholly or in large part produced in the United States. Recent examples include the AV-8A and B Harrier, the T-45 Goshawk, the Multiple Subscriber Equipment system, the 9mm Beretta pistol and the Joint Primary Aircraft Training System (JPATS). While we regard this "domestic production line" requirement as related to security, to our foreign trading partners it looks very much like a 100% direct offset policy.

The fact is that when governments spend their taxpayers funds, they tend to demand more than just the product itself - they wish to accomplish other objectives, one of which is showing the maximum gain to their taxpayers in local employment and economic activity. Hence the application of offsets by most governments.

Overall, U.S. companies would be happy to see the disappearance of most offset requirements, with perhaps one caveat. As the U.S. has the world's largest economy, it can be argued that offsets provide a form of marketing advantage to U.S. firms. That is, the U.S. can absorb offset requirements, including some purchases from the customer country, with little or no impact on our overall economy, more readily than our competitors. This marketing tool is particularly important to the U.S. defense industry given the lack of official U.S. export finance for defense products and technology transfer controls that often preclude our competing with our best technology.

In fact, while offsets are an irritant and perhaps a distortion of an ideal free trading system, we have yet to see any clear evidence that they have had any significant negative impact on overall U.S. competitiveness, industrial base, or jobs. The macro studies conducted by the U.S. government make quite the opposite case, as do aerospace and defense export figures over the past decade. A variety of hearings over recent years by the Congress and the International Trade Commission have had witnesses allege damage related to offsets, but provided no specific examples of such damage. Certainly the performance of the aerospace industry with respect to sales, exports, employment and balance of trade makes it hard to argue that offsets are having a noticeable negative impact.

There are perhaps occasions when both the U.S. government and prime contractors have not exerted enough caution to assure that they do not establish a climate in which subcontractors can be unduly pressured by foreign customers into agreeing to licensed production as part of an offset or coproduction agreement. Improved communication among DoD officials, primes, and subcontractors could help avoid such situations.

There are certainly problems related to the defense industrial base. But we suspect that offsets tend to reflect those problems, not cause them. Overall, the U.S. defense industry suffers far more from such problems as the sharp decline in the DoD procurement budget in the early ninties, DoD acquisition regulations, high costs of venture capital, and a financial system geared to short term returns rather than to long term improvements in productivity and product, than they do from foreign imposed offset requirements.

Given the above, the Aerospace Industries Association suggests that the executive branch incorporate the following principles into any federal policy with respect to offsets.

1. The U.S. government should not take unilateral measures through statute or regulation to control offsets which would simply cause business to go to foreign competitors (except for current technology transfer restrictions related to security).

Most U.S. products that are eligible for export must compete with similar equipment produced in other countries. It does no good for U.S. producers or the industrial base if the U.S. restricts offset offers by U.S. firms which simply result in a customer turning to another supplier who is willing to provide the equipment and a satisfactory offset package. We have seen this happen with great frequency in the unilateral application of foreign policy and national security export controls. We do not need another unilateral form of controls which is even more market distorting than the practice it was set out to discourage.

2. Direct offsets should not be allowed when a purchase is wholly financed by U.S. assistance on grant terms, except when there is agreement by DoD and U.S. defense firms competing for the business.

When U.S. grant funds are provided to a country, it is generally required to use them to purchase U.S. products. Hence a unilateral limitation on offsets by the U.S. government is unlikely to result in a country refusing to buy from the U.S. It is true, however, that a country contemplating the purchase of more than one system might well be influenced to purchase one or another from the U.S. depending on the offset offers made by other countries. Hence unilateral controls might favor one product and hence one U.S. firm over another, but the total purchases from the U.S. are unlikely to be affected.

As noted above, there may be some instances where the U.S. government might determine that it is to the U.S. advantage to allow a U.S. ally to use grant funding to establish some domestic production capacity for a U.S. product, as in the Egyptian MlA1 tank sale. In such instances, if agreement is reached with the U.S. defense firms involved, limited funds might be used for such purposes. However, such use of funds should be avoided if at all possible, as it risks undercutting support for the overall military assistance program.

3. Efforts should be made by the U.S. to obtain a multilateral agreement on disciplining offset practices or at least to obtain understandings with our major defense trading partners to restrain their offset demands.

Ideally, some international code of conduct on offsets might be negotiated, which would reduce or eliminate offset demands without prejudicing U.S. suppliers. We are not overly optimistic on this score. Similar efforts to limit official export credits have been only moderately successful, with foreign governments quickly finding ways around the agreement to help their own firms (e.g., mixed credits). In a world in which most foreign governments purchase far more civilian goods than the U.S. government, (e.g., surface and air transport, communications, power generation, etc.), the room for back door offsets is quite large.

Furthermore, in any negotiations on offsets our allies are almost certain to demand that if they are to limit offset demands, the U.S. must be willing to lay on the table our "buy America" laws, domestic setaside programs which do not allow foreign participation, and our general insistence on a warm production line for any major system we purchase from offshore. As it is unlikely the U.S. will be politically or militarily willing to do so, negotiations are unlikely to be very successful.

We are more hopeful that the inefficiencies and political irritation caused by offsets, however, might lead our closer major allies, such as Canada, Australia, Korea, Britain, and France, to at least reduce their offset demands, either explicitly or informally. We assume that our negotiators will explore such options.

4. In instances where the only competitors for a foreign contract are U.S. firms, the U.S. government might play a useful role in limiting offsets, but should do so only after full consultations with the U.S. firms involved in the competition.

As a general rule, industry believes that the government should support all U.S. companies in their efforts to compete against foreign companies, but should not attempt to intervene in individual company offers with respect to price, terms, or content of offers, including offsets (except for security related technology controls). However, there are rare instances where U.S. companies appear not to face foreign competition. In those few cases where either the foreign government must buy a U.S. product for political reasons, or because there is simply no other comparable product available, the U.S. government might consult with U.S. companies involved to determine the feasibility of placing some restrictions on offset offers. This could prevent two U.S. companies from escalating offset offers, or even a single U.S. company from being pressured by the foreign government into making excessive offers.

There are three major dangers to such government involvement. First, any formal U.S. government policy of intervention when there are no foreign competitors might simply encourage the foreign customer to stimulate such competition, to pursue a different approach to addressing his defense problem, or to decide against any purchase. Second, the U.S. government might bring undue pressure on U.S. companies to agree to government involvement, even when such interference might favor one company versus another. Finally, if confronted with a percentage cap on offsets, a country might well demand higher quality offsets from companies, which might be more onerous than a higher percentage.

5. The collection and publication of information on offsets by the government should be handled with extreme caution. Such information, particularly when attempts are made to standardize the data, can be very misleading and thereby exaggerate the U.S. perception of the problem, encourage even stronger demands by other governments, disclose proprietary information, and possibly damage the competitive position of U.S. firms in international defense business.

U.S. industry has generally opposed massive data collections on offsets. It has done so because each offset is so unique, and the meaning of individual numbers (particularly percentages) so particular to a specific offset program, that aggregating the data may obfuscate the issue more than it clarifies. It should be noted that there is a clear incentive for the selling firm and even some agencies in the purchasing government to inflate the offset figures so as to put the best image possible on the purchase of a foreign product. However, this in turn tends to distort the importance of offsets in U.S. studies. It also may well escalate the demands of other countries which read the reports.

In general, we believe that if the concern is over the impact of offsets on the defense industrial base, the government would be better served by identifying which specific industries seem to be in trouble. Studies of those industries should then identify all the sources of their difficulty, including offsets. It is our opinion that if such studies are conducted, it will be found that offsets are not a very important aspect of problems relating

to the industrial base.

In summary, AIA would urge that the U.S. government make clear its dislike for offsets to our trading partners, but use extreme caution in taking any action which will simply shift purchasers away from U.S. producers. We would also urge executive branch agencies to identify specific sectors of the defense industrial base which seem to be in difficulty, and to examine all the reasons why they are having troubles. If offsets prove to be a major problem, then some remedy might be taken with respect to the particular product. If, as is more likely, the problems of a given sector relate to other economic factors, then different remedies will be required. To date, the government has essentially agreed with the aerospace industry's views, and industry looks forward to continuing to work with the government on assuring that we maintain both a strong defense industrial base, and a strong export performance.

Mr. MICA. Mr. Scott, you are recognized.

Mr. SCOTT. Good morning, Mr. Chairman and members of the committee. Thank you for inviting me to testify here today.

The future of the industry may differ significantly from the past, particularly regarding employment. The debate over the impact of offsets is contentious because of the interplay of several closely related questions that can be difficult to disentangle. Over the past decade, this industry has gone through a massive downsizing, which has been driven by declines in defense expenditures. In the past, offsets were a relatively small contributor to the problem. However, defense restructuring is over. In the future, trade, and offsets in particular, are likely to be much bigger factors in employment loss than in the past.

I have prepared several reports on these subjects. The most recent was published by the National Research Council, and that is appended to my statement as appendix A. We have updated several figures from that report, statistical figures, for this hearing, and I have attached as a separate exhibit B or appendix B, those updated tables and figures, and I will refer to several of those by their original figures in my testimony here today.

Mr. MICA. Without objection we will make both of those a part of the record.

Mr. SCOTT. Thank you very much.

Turning specifically to employment, the impacts of offsets, and in particular total aerospace employment, peaked in 1989, as Mr. Johnson mentioned. Approximately one-half million jobs were lost between 1989 and 1995, which was the last trough in this industry. Employment recovered for a few years, but it peaked in April 1998, which I think it is important for us to note today. This is shown in my new figure A, which is included in the text of the testimony itself.

There are several major reasons why employment declined in the past. Between 1989 and 1995, there were three major factors. Decline in defense sales accounted for about half of the job losses. Outsourcing, which includes the effect of offsets and all other forms of increasing import of parts and components, accounts for about 6 to 10 percent of job loss in that earlier period. And productivity growth accounted for the rest.

In the past year, the Asian financial crisis has been a very significant cause of employment loss in the industry. Economy-wide, we have lost over 440,000 jobs in manufacturing since April 1998. In aerospace alone, we have lost 29,000 jobs in this period, as shown in figure A in my testimony.

Offsets contribute to both commercial and military job losses in the aerospace industry. One important measure of the impact of outsourcing is the ratio of imported engines and parts to total aircraft sales. That is, commercial and military sales. This is shown in figure 4 in my appendix, which you may want to look at briefly. You will note that shows a very steadily rising trend of foreign components essentially to U.S. aircraft sales. It has gone up almost every year for the past decade. It has doubled in the last 10 years or so, and this growth ratio has accelerated in the last 3 years. This ratio essentially is a measure of the foreign content of U.S.

aircraft. It is quite rough, but it is an approximation of that measure.

Now, in the NRC paper, I estimate the likely threats to future employment in the industry. To save time, I will just note that we are going to lose perhaps as many as 45,000 jobs in the next 15 years or so to outsourcing, perhaps twice that many to increased foreign competition, principally from Airbus, for a total loss of about 123,000 jobs, about 15 percent of employment in the industry.

Let me move quickly to my policy implications section to save time for discussion.

Given these estimates of future job loss, I think that this industry is at great competitive risk. I think it is important for us to craft a policy that includes offsets, but goes beyond to look at the broader issues of industry competitiveness for the reasons explained in the NRC paper. Domestic and foreign producers are caught in what economists refer to as a prisoners dilemma with respect to offset agreements in particular. When a foreign customer demands an offset in exchange for a sale, firms feel they have to comply or risk losing contracts. They are engaged in a desperate race to the bottom that will accelerate the transfer of jobs and technology to foreign producers.

There are several ways to attack this problem. First, I think the United States and European Union should, on a bilateral basis, agree to restrict the use of offsets, perhaps through an extension of something like the Foreign Corrupt Practices Act.

Second, I think the United States and the E.U. are raising the stakes in the aerospace battle. We have seen a number of conflicts in the last year in issues like aircraft noise, new subsidy programs and so on. I think we may be approaching a time where we have to consider something like a market share agreement with the E.U.

Finally, I think we have to expand the treatment of offsets in the WTO. Currently, government offset requirements are prohibited. I believe that we also have to restrict firm-to-firm offset requirements. It is private offset agreements, because the line between public and private firms has become extremely blurred, in areas like East Asia and China in particular, where we are dealing with essentially government-owned companies. I will close at that point. Thank you very much.

Mr. MICA. Thank you.

[The prepared statement of Mr. Scott follows:]

The Effects of Offsets on Output and Employment in the U.S. Aerospace Industry

Testimony given before the
Subcommittee on Criminal Justice, Drug Policy and Human Resources
of the House Committee on Government Reform

June 29, 1999

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Good morning, Mr. Chairman and members of the Committee. Thank you for inviting me to testify here today. The future of the industry may differ significantly from its past, particularly regarding employment. The debate over the impacts of offsets is contentious because of the interplay of several closely related questions that can be difficult to disentangle. Over the past decade, the industry has gone through a massive downsizing driven by declines in defense expenditures. Offsets were a relatively small contributor to employment loss in this period. However, as defense restructuring approaches its conclusion, trade in general, and offsets in particular, are likely to be bigger factors in employment loss in the future.

I have prepared several reports on these subjects.[1] The most recent was a published in a report by the National Research Council that is appended to my statement (see Appendix A). We have updated several figures from that report for this hearing, and I also attach a separate Appendix with those updated tables and figures (see Appendix B). I will refer to several of these exhibits, by their original numbers, in my testimony today.

Employment Impacts

Turning specifically to the employment impacts of offsets, total aerospace employment peaked in 1989, as you will note in Table 1 in Appendix B. Approximately one half million jobs were lost between 1989 and 1995, the last business-cycle trough in this sector. Employment recovered for a few years, but peaked again in April, 1998, as shown in the new Figure A, below. It covers most but not all of the employment summarized in Table 1.

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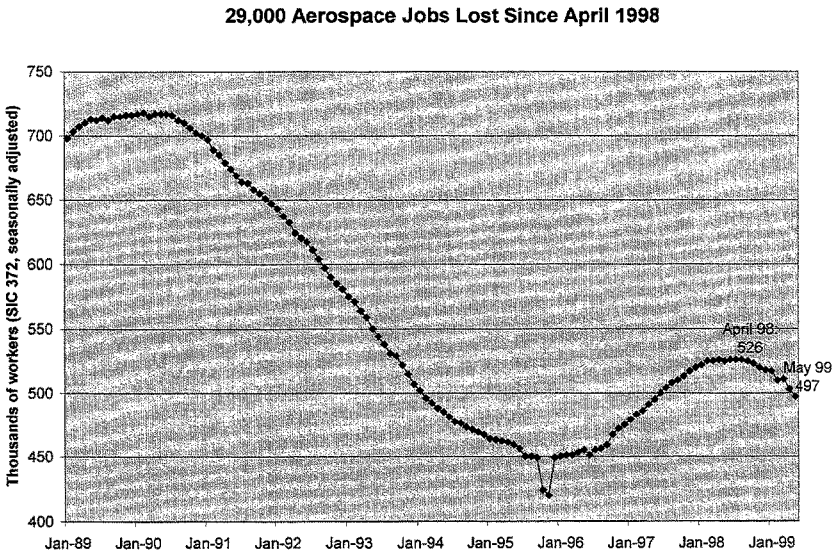
[1] See "The Effects of Offsets, Outsourcing and Foreign Competition on Output and Employment in the US Aerospace Industry" in *Trends and Challenges in Aerospace Offsets,* ed. Wessner, Charles W. Washington, D.C.: National Research Council, 1999, and Scott, Robert E. and Randy Barber, *Jobs on the*

Figure A



Source: EPI analysis of Bureau of Labor Statistics, National Employment, Hours and Earnings data from BLS internet site.

There are four major causes of these employment declines. First, between 1989 and 1995, a decline in sales that was dominated by the decline in defense sales but also included the commercial sector, was responsible for about fifty percent of the half-million jobs lost. Second, outsourcing, which includes all forms of increasing imports of parts and components, accounted for six to 10 percent of those job losses. Third, productivity growth accounted for the remainder of the job loss in this earlier period.

Wing: Trading Away the Future of the US Aerospace Industry. Economic Policy Institute, Washington, DC, 1995.

Finally, in the past year, the Asian financial crisis has significantly depressed employment throughout the manufacturing sector, and in aerospace in particular. 445,000 manufacturing jobs have been lost in the U.S. since last April. The aerospace sector alone has lost 29,000 jobs in this period, as shown in Figure A.

Offsets in both the commercial and military sectors contribute to foreign outsourcing in the aerospace industry. One measure of the impact of outsourcing is ratio of imported engines and parts to total aircraft sales (commercial and military). This ratio has risen steadily since the early 1980s, as shown in Figure 4 (Appendix B). The ratio has more than doubled from less than 10 percent of production to more than 20% last year, and the growth of the ratio has accelerated in the past three years. This chart shows that the foreign content of U.S. aircraft is increasing dramatically. Commercial and military offsets clearly contribute to this problem.

Offsets and foreign competition played a relatively small role in explaining job loss in the early 1990s, as noted above. However, the coming two decades will see a sharply different environment. Defense spending will be, at best, constant. The commercial sector will continue to grow in importance. Furthermore, commercial and defense production involves significant economies of scale and scope. Thus our defense industries will be affected by offsets demands in both the military and commercial sectors.

Table 6 (Appendix B) presents an analysis of the future impact, through the next 15 years, of offsets and other types of foreign competition on domestic aerospace employment. This analysis breaks the causes of job loss into two factors. The first, shown in the top section of the table is outsourcing, or rising foreign content of domestic

aircraft. This includes the effects of offsets. Outsourcing is expected to reduce direct employment in aerospace by about 45,000 jobs by the year 2013.

The second factor affecting employment in the industry is the continued loss of market share in the commercial sector to Airbus. Extrapolating the trend in the decline of Boeing's market share over the past decade, the projection is for a loss of approximately 77,000 direct jobs by 2013, as shown in the middle section of Table 6. Thus, the decline due to market share loss will be twice as large as that due to outsourcing.

The total job loss in the aerospace industry, therefore, is approximately 123,000. Indirect job loss in supplier sectors such as steel and rubber will bring the total loss to over 215,000 jobs, as shown in the bottom section of Table 6. The direct job losses will equal about 15 percent total aerospace employment. However, because the job losses will be concentrated in new aircraft and parts production, this will have a significant impact on employment in prime assembler and supplier firms in this industry.

These projections are conservative. For example, Airbus may gain market share even faster than assumed in this analysis. Furthermore, the growth of foreign content appears to be accelerating, as noted above (Figure 4). Thus, I believe that the U.S. should modify its national policies on offsets.

Policy Implications

Given that the industry is at great competitive risk, it is important to craft a coherent policy that must go beyond offsets, for reasons explained in the NRC conference volume. Domestic and foreign producers are in a "prisoners dilemma" with respect to offset agreements. When a foreign customer demands offset agreements in exchange for sales, firms often feel that they must comply, or risk losing contracts. This results in a

desperate race to the bottom that will accelerate the transfer of jobs and technologies to foreign producers. There are several ways in which this problem could be corrected.

First, the U.S. and the European Union (E.U.) should negotiate some form of bilateral agreement to eliminate the use of offsets as a marketing practice, possibly as an extension of the Foreign Corrupt Practices Act. Second, given the extensive competition between the U.S. and the E.U. for aerospace market shares, both at home and abroad, we should consider negotiating a market share agreement with the E.U. The emerging industry crises over E.U. aircraft noise regulations, new subsidy programs, and the global contraction in demand will create leverage points for such a discussion.

Finally, it is also important to expand the treatment of offset issues in the WTO. Only government-offset requirements are currently prohibited in the WTO, and in the 1992 U.S.-E.U. aircraft accord. Offsets should also be prohibited in private, firm to firm agreements. These are increasingly important because the line between private firms and public enterprises is increasingly vague in many parts of the world, especially in the developing and formerly, or reforming, communist countries. We should use every opportunity to pursue these issues in bilateral and multilateral trade negotiations. This is especially true for the current negotiations on China's proposed entry into the WTO. China must not be allowed to enter the WTO until all public and private offset agreements and requirements are eliminated.

Thank you.

Appendix A

Trends and Challenges in Aerospace Offsets

Proceedings and Papers

CHARLES W. WESSNER, *Editor*

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National Research Council

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suppliers, such as defense and aerospace.) Second, their use as leverage to force technology transfer from private suppliers raises difficult policy questions about the extent to which private interest fully captures the public interest in technologies funded out of public coffers. Third, use of offset requirements is a backdoor challenge to the GATT vision of open global markets.

The obvious alternative in military aerospace that addresses both the big issue of unrestrained exports of advanced military capabilities and the smaller issue of offsets (one tool used to pry open greater technology transfer) is to work through some sort of system of industrial and technical cooperation with major U.S. allies (Europe and Japan). Some arrangement would be needed that would maintain access by U.S. defense producers to these important markets while permitting U.S. allies to maintain core defense systems capabilities and restrain the unchecked proliferation of advanced military exports. The United States—as the only nation that can maintain an economically affordable advanced defense sector without relying on exports—must play a leadership role in constructing such a system. The massive investment by the United States in military technology—which in effect underwrote the development of allied industrial capabilities in the first place—continues to provide us with enormous leverage that can be utilized for this purpose.

The Effects of Offsets, Outsourcing, and Foreign Competition on Output and Employment in the U.S. Aerospace Industry

Robert E. Scott
Economic Policy Institute

The debate over the employment effects of offsets is contentious because of the interplay of several closely related questions that can be quite difficult to disentangle. Overall employment has declined steeply in the U.S. aerospace industry since 1989 for a variety of reasons, including sharp reductions in public spending for defense goods and space exploration; rising imports of aircraft, engines, and components; and increasing productivity and structural changes in the defense and commercial aerospace industries, including numerous mergers and consolidations. Furthermore, industry representatives argue that, in the absence of offsets, foreign sales of commercial and defense aerospace equipment would decline or disappear, raising questions about the appropriate counterfactual exercise that should be used to analyze the effects of offsets and related issues on total industry employment.[1]

Barber and Scott (1995:2) examined a number of these issues and concluded that, in addition to the 500,000 jobs already lost in this industry since 1989, an additional 469,000 jobs in aerospace and related industries could be at risk by 2013 because of offset policies and increased foreign competition." In this report I update Barber and Scott (1995) and re-examine the evidence that increasing foreign competition will threaten a large number of jobs in this industry over the next one to two decades. I begin by reviewing trends in aerospace employment and then examine the principal causes of declining sectoral employment using a straightforward counterfactual exercise to assign changes in employment that

[1]See, for example, Johnson (1997:34) who noted that "if a foreign customer wants to deal in offsets, companies will have to listen and negotiate."

occurred between 1989 and 1996 to their proximate causes. In the next section I examine international competitive challenges and forecast the effects of offsets and other types of international competition on industry employment for the next two decades. The paper concludes with a discussion of policy alternatives for addressing the industry's problems.

EMPLOYMENT TRENDS

Overall Trends

Between 1989 and 1995 total employment in the aerospace industry declined by 545,000 workers, as shown in Table 1. In 1996 output and employment began to recover and they improved in 1997 (AIAA, 1997), and are forecast to increase for several more years (*Aviation Week and Space Technology*, 1997). The most important causes of the decline in employment were (1) declining defense budgets, (2) a worldwide recession in commercial aircraft demand, and (3) the effects of increased international competition. Between 1989 and 1995 overall aerospace employment declined by 40 percent. The decline in employment had very similar effects on production and nonproduction employment in the aerospace industry. The share of production workers in total industry employment fell only by 1.6 percentage points between 1989 and 1995, and the production worker share recovered strongly in 1997 (AIAA, 1997).

The global recession in aircraft demand caused employment to fall in all major aircraft-producing nations, as shown in Table 2. Total aerospace employment in the triad countries (the United States, Europe, and Japan) fell by more than 550,000 workers, according to the European Commission (EC).[2] However, the losses were not evenly spread. Employment in the United States and the United Kingdom, as reported by the EC, fell by about 42 percent between 1989 and 1995, but declined only 20 percent in the rest of Europe, 13 percent in Canada, and was unchanged in Japan. The United States absorbed about 74 percent of the job losses during this period, although only 62 percent of total triad aerospace employment was located in the United States in 1989.

As a result of these differential impacts, the U.S. share of aerospace employment in the triad countries declined by about 6 percentage points between 1989 and 1995, as shown in Figure 1. The other members of the triad all gained employment share, relative to the United States (with the exception of the United Kingdom, as shown in Table 2). Data reviewed below suggest that one reason that employment levels remained higher in Europe was the growing share of Airbus Industrie in commercial aircraft markets.

[2]The EC uses a narrower definition of the aerospace industry than does the Aerospace Industries Association of America, as shown in Table 2.

TABLE 1 Aerospace Industry Employment, 1982–1997 (in hundreds of thousands)

Year	Total Aerospace	Total Aircraft	Civil Aircraft	Military Aircraft	Missiles and Space	Other Related	Other Related Share of Total (%)
1982	1,027	516	231	285	243	268	26.1
1983	1,027	484	174	310	259	284	27.7
1984	1,097	517	184	333	286	294	26.8
1985	1,206	588	210	378	294	324	26.9
1986	1,272	639	238	401	309	324	25.5
1987	1,300	653	257	396	316	331	25.5
1988	1,311	666	280	386	313	332	25.3
1989	1,331	702	326	376	306	323	24.3
1990	1,270	687	341	346	281	302	23.8
1991	1,180	660	345	315	251	269	22.8
1992	1,040	597	322	275	217	226	21.7
1993	907	523	275	248	176	207	22.8
1994	827	469	285	184	165	193	23.3
1995	786	423	256	177	172	181	23.0
1996[a]	805	451	282	168	171	183	22.7
1997[b]	826	469	304	165	172	185	22.4

[a]Preliminary.
[b]Estimated.

SOURCE: Economic Policy Institute analysis of AIAA (1996, 1997).

TABLE 2 Aerospace Employment in Europe, Canada, Japan, and the United States, 1974–1995

Year	United Kingdom	Other European Union	Total European Union	United States[a]	Canada	Japan	Total
1974	210,100	199,541	409,641	666,000	28,400	29,814	1,133,855
1979	196,566	227,071	423,637	775,000	37,700	31,666	1,268,003
1980	229,821	241,874	471,695	830,000	46,800	32,991	1,381,486
1984	203,202	262,318	465,520	817,000	44,041	34,200	1,360,761
1985	206,677	274,971	481,648	898,000	48,794	34,300	1,462,742
1989	189,911	295,829	485,740	992,000	66,106	38,300	1,582,146
1990	186,337	297,635	483,972	946,000	65,679	39,100	1,534,751
1994	119,353	240,954	360,307	616,000	54,031	38,100	1,068,438
1995	110,549	237,512	348,061	580,000	57,329	38,300	1,023,690

[a]Figures for U.S. employment include only companies in SICs 372, 376, 366, 381, and 382 and exclude other aerospace-related companies and their employees.

SOURCE: European Commission (1994, 1997).

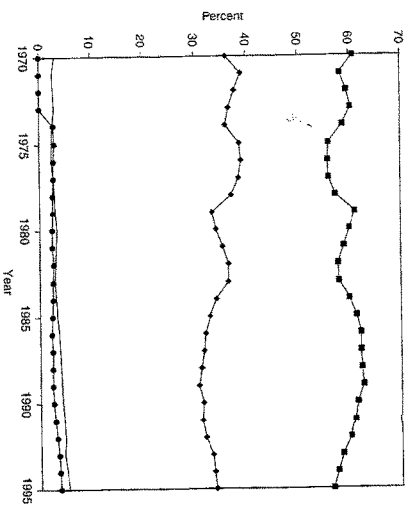

FIGURE 1 Shares of triad aerospace employment. Source: Economic Policy Institute analysis of data from European Commission (1997).

Causes of U.S. Aerospace Job Losses, 1989–1997

Industry revenues, measured in constant dollar terms, declined sharply in all the major sectors of demand in the early 1990s, as shown in Table 3. The sectoral changes were not evenly spread, as was the case with employment in Table 1. Total industry revenues fell 30 percent between 1990 and 1995 and increased 26 percent between 1995 and 1998. Civil aircraft sales fell by 37 percent in the first half of the 1990s, but are forecast to nearly double between 1995 and 1998. Missile sales declined much more rapidly than average and will remain flat through 1998. Space purchases (including research and development (R&D)) were essentially flat in the 1990s. Of the five major subsectors of the aerospace industry, shown in the last five columns of Table 3, civil aircraft sales were responsible for the greatest majority of the industry's $23 billion expected increase in real sales

TABLE 3 Aerospace Industry Revenues (constant 1987 dollars, in millions)

Year ($Millions)	Total Aerospace ($Millions)	Total Aircraft ($Millions)	Civil Aircraft ($Millions)	Military Aircraft[a] ($Millions)	Missiles[a] ($Millions)	Space[a] ($Millions)	Related Products and Services
1979	71,528	41,546	20,830	20,717	7,524	10,307	12,150
1987	110,008	59,188	15,465	43,723	10,219	22,266	18,335
1988	112,426	59,751	18,664	41,086	10,079	23,859	18,738
1989	113,604	58,011	20,644	37,367	12,839	23,821	18,934
1990	121,606	64,573	28,382	36,281	12,833	23,933	20,268
1991	121,508	66,246	32,673	33,573	9,572	25,438	20,251
1992	117,251	62,525	33,754	28,772	9,947	25,238	19,542
1993	101,636	54,314	27,323	26,991	6,973	23,409	16,940
1994	89,160	46,490	20,642	25,848	6,099	21,710	14,860
1995	85,473	43,654	19,005	24,649	5,857	21,717	14,246
1996	91,364	46,987	21,074	25,913	6,309	22,841	15,227
1997[b]	99,480	53,048	29,657	23,391	6,358	23,494	16,580
1998[c]	108,121	59,540	36,754	22,785	6,003	24,559	18,020
Change in Constant Dollar Revenues (%)							
1979–90	70	55	36	75	71	132	67
1990–95	–30	–32	–33	–32	–54	–9	–30
1995–98e	26	36	93	–8	2	13	26

[a]Includes funding for research, development, testing, and evaluation.
[b]Preliminary.
[c]Estimated.

SOURCE: Economic Policy Institute analysis of AIAA (1996, 1997).

TABLE 4 Relationship of U.S. Aerospace Revenues to Exports, Imports, and the Balance of Trade (billions of current dollars)

Year	Total Aerospace Revenues ($)	Total Aerospace Export Revenues ($)	Exports as Percent of Total Aerospace	Total Aerospace Import Revenues ($)	Imports as Percent of Total Aerospace	Aerospace Balance of Trade ($)
1979	45.4	11.7	25.9	1.6	3.6	10.1
1989	120.5	32.1	26.6	10.0	8.3	22.1
1990	134.4	39.1	29.1	11.8	8.8	27.3
1991	139.2	43.8	31.4	13.0	9.3	30.8
1992	138.6	45.0	32.5	13.7	9.9	31.4
1993	123.2	39.4	32.0	12.2	9.9	27.2
1994	110.6	37.4	33.8	12.4	11.2	25.0
1995	106.3	33.1	31.1	11.5	10.8	21.6
1996[a]	112.4	39.6	35.2	13.6	12.1	26.0

[a]Preliminary.

SOURCE: Economic Policy Institute analysis of AIAA (1996, 1997).

between 1995 and 1998. Increased sales of $3.8 billion in related products and services roughly offset losses in military sales in this period.

Imports have also been rising rapidly, as shown in Table 4. Between 1989 and 1997, imports increased by $8.1 billion in nominal terms. The import share of the domestic market increased by 5.7 percentage points. One way to assess the effects of trade on employment is to construct a counterfactual scenario in which trade remains constant as a share of domestic output. In this scenario, if demand were unchanged in 1997, then domestic sales and output could have been 5.7 percent higher than they actually were if the import share had remained unchanged at its 1989 level. This translates into about 49,500 jobs, out of the actual loss of 462,000 jobs between 1989 and 1997(see Table 1). Thus, increased imports directly account for about 11 percent of the decline in aerospace employment observed in this period.

Falling output also reduced employment, although a significant recovery had occurred by 1997, relative to the nadir reached in 1995. Total industry sales, in *real* terms, declined by 12.5 percent between 1989 and 1997 (Table 3). If output were unchanged in 1997, relative to 1989, then an additional 109,000 jobs would be been retained or created in this industry. Thus depressed demand for aerospace products explained about 24 percent of employment losses in this period. Declining demand in all sectors, especially in the military industries, was the most important cause of falling employment between 1989 and 1995 (as indicated in Table 3), but productivity and related factors played a more significant role after 1995.[3]

Productivity growth, broadly defined as output per worker, also eliminated significant amounts of aerospace employment in this period. The unexplained employment changes (those due to forces other than increased imports and demand changes) amounted to 292,000 jobs between 1989 and 1997, or two-thirds of all jobs lost in this period. However, this measure also includes the effects of changes in the capital/labor ratio, and interactions between productivity and the other factors discussed above (trade, demand, and capital intensity). In the absence of data on changes in capital inputs in this period it is impossible to estimate the effects on employment of total factor productivity growth, or pure technical change as it is usually measured by economists. Nonetheless, it appears that productivity growth does explain a substantial share of the job losses that did occur between 1989 and 1997.

In assessing the causes of declining employment, it is also important to note that trade also has indirect effects on employment that are not reflected in the simple decomposition given above. For example, increased foreign competition may explain a significant portion of the observed productivity increase. In addition, the loss of foreign market shares also explains part of the decline in total sales. As shown below, Airbus, in particular, has sharply increased its share of foreign markets for commercial aircraft, which are some of the most important sources of demand for U.S. producers (Table 4).

The increasing international competition, and the global decline in aircraft demand, led to a sharp decline in the nominal value of U.S. exports between 1992 and 1995, as shown in Table 4 and Figure 2. Exports began to increase again in 1996, stimulated by the end of the commercial aircraft glut of the early 1990s and also by the introduction of Boeing's new 777 aircraft. The effects of the international business cycle were amplified by a technology cycle in which Airbus was

[3]Editing of the proceedings for this volume permitted updating of the data reported in this chapter. The analysis in this section has been revised to reflect changes in trade and output through 1997, as a result. These revisions altered the details of the analysis, but did not affect the basic conclusions. In particular, the trend rate of growth in the ratio of imported engines and parts to aircraft sales, a key indicator in the analysis in this chapter, accelerated sharply in 1997, as shown in Figure 4, below.

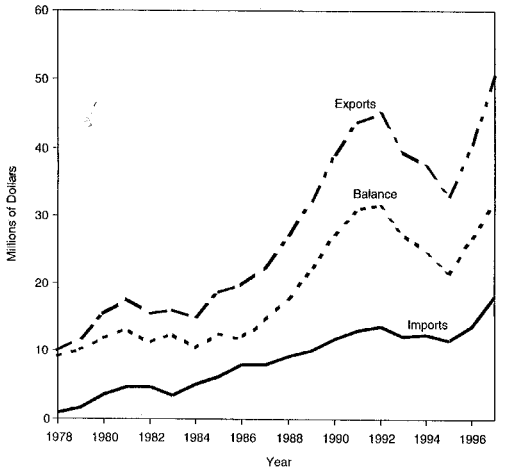

FIGURE 2 Aerospace exports, imports, and trade balance. Source: Economic Policy Institute analysis of AIAA (1996, 1997).

first to market with its new generation of long-haul aircraft (the A330 and A340 models, first delivered in 1993) and was therefore able to capture market share from the U.S.-based producers until the 777 was launched in 1995 (European Commission, 1997:20).

Despite these difficulties, export sales fell less sharply in the early 1990s than other types of aerospace sales (Table 4). Therefore, because their share of domestic production increased, the constant share model suggests that export markets helped sustain domestic production in this period. Exports increased from 29.1 percent of total revenues in 1990 to 38.8 percent in 1997, an increase of 9.7 percentage points. Without this increase in export sales, U.S. aerospace employment would have been reduced by a similar amount in 1996. In other words, if the export share of U.S. aerospace sales had remained constant at its 1989 level, then there would have been approximately 84,000 fewer jobs created.

The question that must be addressed is whether a constant export share is the appropriate counterfactual exercise. The United States controlled a substantial share of the world commercial aircraft industry in the 1980s, and in fact that share has fallen in the 1990s, as discussed below. It is the growth in overall world demand for commercial aircraft, in combination with the shrinkage of demand for other domestic aerospace products, that has caused the increase in the export share of U.S. aerospace sales. For these reasons it is incorrect to assume that these export sales, and the increase in the share of exports in total sales, would not have taken place in the 1990s unless imports had also increased, as suggested by some observers. The two trends are driven by different forces. Changes in imports and exports should be analyzed independently.

FUTURE THREATS TO U.S. AEROSPACE EMPLOYMENT

Airbus and other potential new foreign competitors in the commercial aircraft industry are the most important direct threats to U.S. aerospace employment. This threat was realized and became increasingly important in the 1990s, as shown in Figure 3. The market share of Airbus and other European aircraft producers began to rise sharply, especially after 1992, in all significant markets. In the United States their share attained a peak of 30 percent in 1994 and has declined since. However, their share in the rest of the world (excluding the United States and Europe) increased by nearly 50 percent between 1994 and 1995, from 30 percent to nearly 45 percent. This reflects, in part, the technological cycle discussed above. However, it may also reflect (1) more aggressive sales promotions by European Union (EU) governments (for example, through more generous export financing), (2) more competitive pricing by Airbus, and (3) market-share gains through increased willingness to engage in offset transactions. In China, in particular, Airbus has increased its market share sharply and has also announced a number of joint and co-production arrangements with Chinese producers (see examples in Box 1).

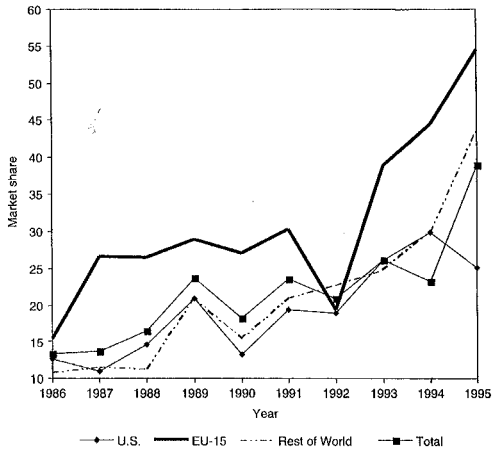

FIGURE 3 European Union shares of aircraft deliveries, by region of the world, 1986–1995. Source: Economic Policy Institute analysis of European Commission (1997).

Airbus and the other European aircraft manufacturers have also maintained a larger share in their home market throughout the period shown in Figure 3. They became the dominant suppliers in Europe in the 1990s. In 1995 European firms captured 55 percent of their home market (measured in value terms), while controlling approximately one-third of the total world market for commercial aircraft sales. In 1995, 22 percent of European commercial aircraft sales were in their home market (European Commission, 1997:32). Boeing is also heavily dependent on exports. It now "exports 70% of its commercial jets," a fraction that has been increasing in recent years (Waldmann, 1997:6). The relatively large market share of Airbus and other European aircraft producers in the EU suggests that European airlines (public, private, and mixed) may be skewing sales to European firms for nonmarket reasons. Although such preferences may violate the spirit or letter of the 1979 General Agreement on Tariffs and Trade (GATT) aircraft agreement (signed by the United States and the countries of the EU) or the 1992 civil

BOX 1
Offsets and Outsourcing in China

- Airbus donated a $50 million flight training simulator for use in training pilots in Beijing.
- Xian Aircraft Co. builds vertical fins and horizontal stabilizers for the Boeing 737, trailing edge ribs for the 747, and forward access doors for the 737.
- Xian also builds access doors for the Airbus A300, A310, A330, and A340 and carbon fiber fin ribs for the A320.
- Chengdu Aircraft Co. makes vertical fins, horizontal stabilizers, and tail sections for the Boeing 757 and nose sections for the MD-80 and MD-90 transports.
- Shenyang Aircraft Co. makes cargo doors for the Boeing 757 and wing ribs and emergency exit doors for the Airbus A320 and machine parts for the A300 and A310.
- Shanghai Aircraft Co. makes components for the Boeing 737 and jointly assembles the McDonnell Douglas MD-80 and MD-90 transports.

Source: *Seattle Times* (1996).

aircraft accord, they have not yet been the subject of formal complaints or action by U.S. producers or government agencies such as countervailing duties or Section 301 actions.

The trends illustrated in Figure 3 are reflected in Table 5, which reports U.S. aerospace exports, by region, between 1991 and 1995. Exports to the eight largest European countries fell 40 percent, the largest decline of any region. This reflects the particularly strong performance of European firms in their own market in the 1990s. U.S. exports to Japan and Asia were essentially flat, although they did decline somewhat from 1992. Exports to the rest of the world declined by 25 percent in this period, also reflecting the effects of increased competitiveness of Airbus, vis-à-vis Boeing and McDonnell Douglas, although it is not clear whether this reflects market forces or unfair competition.

In the context of the offsets debate, in which China is often cited as one of the most aggressive and egregious violators of international norms, and also one of the most important and rapidly growing markets for aircraft, it is significant to note that total U.S. aerospace exports to China were quite small, representing between 3.5 and 7.5 percent of total U.S. exports in this period. The small volume of U.S. exports to China suggests that the benefits of offsets, in terms of increased sales, may be quite limited. However, the costs in terms of lost jobs and diffusion of critical technologies could be quite significant. Ultimately, foreign aerospace

TABLE 5 U.S. Aerospace Exports, by Region (millions of dollars)

Year	EU-8	Japan	China	Rest of World	Total Exports
1991	17,647	3,910	1,244	12,747	35,548
1992	14,801	4,505	2,247	15,353	36,906
1993	11,802	3,581	2,384	14,056	31,823
1994	11,821	4,099	2,047	12,083	30,050
1995	10,620	3,587	1,250	9,622	25,079

SOURCE: Economic Policy Institute analysis of AIAA (1996).

firms may play a key role in helping China, or a coalition of Asian aerospace firms, become a new entrant in the aircraft industry as a full-fledged designer and integrator of commercial jets, with potentially devastating consequences for both Airbus and Boeing.

Offsets as Threat to Future U.S. Aerospace Employment

Imports represent a growing share of domestic output, as noted above in the discussion of Table 4 on U.S. aerospace sales and trade. Imports have two distinct effects on output. First, an increase in the sales of finished aircraft of foreign origin reduces the level of domestic sales. In this sense, imports directly represent an opportunity cost in terms of lost sales and employment possibilities.

The second channel through which imports can affect domestic employment is when the use of foreign parts and components increases as a share of value added. In effect, the "foreign content" of domestic sales is thereby increased, and a given volume of final sales will not support the same number of domestic jobs. This is equivalent to a reduction in the amount of labor that is required to produce a given amount of output.[4] Offset agreements, both voluntary and mandatory,

[4]If input-output relationships are used to model the effects of trade and output on domestic employment, then an increase in the share of imported components in final sales should be reflected in a reduction in the direct and indirect labor requirements per dollar of value added. Note, however, that tables 2 through 4 report industry sales. This reporting procedure necessarily results in double counting of some elements of value added. For example, aircraft parts sold to final integrators are also included in the value of the aircraft finally delivered to domestic or foreign customers. It would be highly preferable if industry were to report domestic value added, rather than total sales.

[5]The exception to this rule would occur at later stages in the product life cycle when a foreign competitor begins to assemble finished aircraft. In this case, the aircraft assembled abroad would reduce domestic employment by either (1) reducing foreign (export) sales of the domestic firm and/or (2) increasing imports of finished aircraft. McDonnell Douglas has already reached both stages in its

will generally have the largest effect on parts and components imports.[5] It is therefore important to distinguish imports of components and complete aircraft when analyzing the effects of trade on employment.

In the 1990s, imported parts and components (including engines and engine parts) were, on average, 71 percent of total aerospace imports.[6] Figure 4 shows that U.S. engines and parts imports represent a growing share of total aircraft sales.[7] This share rises from about 8 percent in 1981 to over 19 percent in 1997. Between 1984 and 1997, this share increased by about 0.7 percentage points per year. As a first approximation, the increase in parts imports reflects the direct effects of offsets and all other forms of co-production and international outsourcing agreements. This measure is separate from the effects of increasing international competition in final aircraft sales, as reflected in increased imports of complete aircraft and reduced exports. This distinction will be important in predicting future jobs at risk.

Before turning to the analysis of future employment threats, we need to examine trends in some of the major components of aircraft employment. Figure 5 reports total employment in airframes (final assembly and integration), engines and parts, and other parts and equipment. Several trends stand out in these data. *First, the bulk* of employment in this industry is still in the airframe sector, composed primarily of the major defense and commercial aircraft integrators. Second, there appears to be a secular declining trend in employment in airframes, engines, and parts. As a location for production, the United States is internationally the least competitive in the engine sector. The United States has had roughly balanced trade (exports equaling imports) in this sector in recent years and has periodically experienced overall deficits in engine trade. This is remarkable, in part, because two of the three major engine producers are based in the United States (Almeida, 1997).

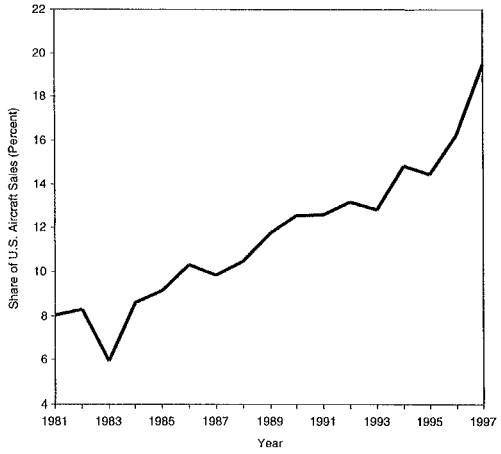

FIGURE 4 U.S. engines and parts imports as a growing share of total aircraft sales. Source: Economic Policy Institute analysis of AIAA (1996, 1997).

Third, there is some evidence of a stable or increasing trend in employment in the U.S. aircraft parts industry. This is illustrated in Figure 6, which compares employment in parts with employment in the much larger airframe sector. This comparison also reveals that employment in parts is somewhat more volatile than in the airframe sector. There are several possible explanations for these trends that are consistent with the evidence on rising parts imports shown in Figure 4. First, as the technological complexity of aircraft has increased it is likely that the number and value of components (electronics, for example) has also increased, as a share of value added. Second, modularization of component production has eliminated final assembly labor in a wide range of industries, from motor vehicles to electronics, so it is not surprising to observe evidence of that trend here. Finally, products counted as parts may substitute for production that used to take place within the plants of airframe manufacturers. Several examples of this are given in Box 1 that involve Chinese offsets and outsourcing, including doors,

co-production arrangement involving Chinese assembly and co-production of its MD-82 and MD-90 aircraft. At least one of these aircraft has also been exported back to the United States.

When final aircraft assembly is transferred abroad, parts exports will increase even while total industry employment and value added would decline, relative to what they would have been if those aircraft had been assembled in the United States. In this case, it is inappropriate to treat parts and component exports as net-job creators. Indentification of appropriate counterfactual analysis in such cases will require detailed knowledge of offset sales contracts and whether or not such sales would have taken place in the absence of voluntary or mandatory offset agreements.

[6]There was no significant trend in the level of parts imports as a share of total aerospace imports in this period. This is somewhat surprising because of the decline in military production (which involves high levels of mandatory exports) and the relative increase in commercial aircraft markets noted above. Thus, the level trend in this share suggests that commercial sales may have involved increasing offsets in this period.

[7]Note that Figure 4 uses a different basis (total aircraft shipments) from the analogous exhibit in our prior research (Barber and Scott, 1995: Figure 8, p. 27). This change was made to improve the accuracy of our forecasts, as explained in the next section.

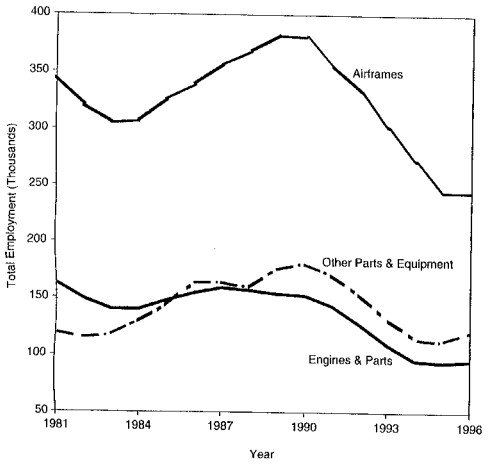

FIGURE 5 Long-run decline in employment in aircraft production. Source: Economic Policy Institute analysis of Bureau of Labor Statistics (1997) and AIAA (1996, 1997).

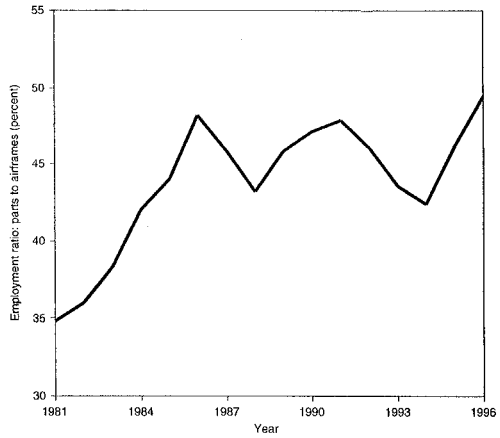

FIGURE 6 Employment in aircraft parts versus airframes. Source: Economic Policy Institute analysis of Bureau of Labor Statistics (1997) and AIAA (1996, 1997).

fins, stabilizers, and body parts for various types of commercial aircraft. As a consequence of each of these trends, employment in airframe manufacturing appears to be declining, relative to both domestic and foreign parts production. Thus, domestic workers in the airframe industry are correct to blame both outsourcing and imports for job loss in their industry.

The higher level of variability in parts employment suggests that employment in parts production is more heavily affected by the business cycle than is employment in the airframe sector. The secondary or sub-tier supplier base therefore appears to absorb a disproportionate share of the job losses that occur during downturns, once we control for the long-run shift of employment out of engines and airframes, as discussed above.

Jobs at Risk in the Future

In this section, employment effects of growing foreign competition, and also foreign outsourcing and other practices that encourage U.S. firms to shift component and parts production abroad, are briefly re-examined. As noted by several other contributors to this volume and other participants in the National Research Council conference (Wessner and Wolff, 1997), offsets are an important threat to domestic production in both military and commercial aircraft production. These problems are particularly important in the case of trade with large, nonmarket economies because of the role of and bargaining power exercised by government officials as the ultimate arbiters of all major import purchasing decisions. Some examples of current offset and co-production practices are illustrated in Box 1.

Boeing officials have acknowledged that their company does enter into voluntary offsets "as a means of gaining market access" (Waldmann, 1997:6). Other analysts concluded that, although the issue of offsets is "not even on the radar screen" at the present time, offsets will increase and become a "major factor over the next decade or two" (Bozdogan 1997:27). These views are confirmed by closely examining the trends discussion above and their implications for future employment in the U.S. aerospace industry.

International competition threatens U.S. production in at least two distinct ways. First, the market share of U.S. producers of commercial aircraft could decline in the future as a result of market-share gains by Airbus Industrie and/or other potential new entrants to this market.[8] This will impact U.S. employment primarily by reducing U.S. exports because the majority of commercial aircraft produced in the United States are now sold in export markets, as noted above.

The second threat to domestic employment is through increases in the foreign content of domestically produced aircraft as a result of increases in offsets and other forms of international component outsourcing. Ultimately, such outsourcing could help create new competitors to U.S. producers and hence exacerbate the first type of international competition. However, such secondary effects are ignored here and only the effects of increases in the foreign content of domestically produced aircraft on U.S. aerospace employment are considered.

The foundations for my estimate of the number of jobs at risk in the future because offsets increase foreign competition are (1) the 1994 DRI/McGraw-Hill study of the U.S. manufacturer market share, as reported in Barber and Scott (1995:43–45) and (2) Boeing's estimates of the future world market for commercial aircraft. These estimates are used to forecast the future effects of increased foreign competition on total (constant dollar) sales of U.S. aerospace products.

The potential job losses that could result from offsets and other types of foreign outsourcing are estimated by extrapolating the current trend in the rate of growth of aircraft engines and parts (see Figure 4) as a share of the value of total domestic aircraft sales (military and commercial). I assume that real output remains constant at the level that prevailed in 1994 and that the trend in the rate of growth in the imported parts share continues through 2013.[9]

A recently released (Department of Labor, 1996) input–output-based employment requirements table is used to estimate the direct and indirect employment effects of trade for both types of employment threats. These procedures are similar to those used in Barber and Scott. However, they differ in two respects. First, use of the new input–output table provides industry-specific employment

[8]This analysis ignores competitive threats in the military and space sectors. Increased competition in any of these other sectors could further reduce domestic employment opportunities in the aerospace industry.

[9]The year 1994 is taken as a base for comparison with the estimates developed in Barber and Scott (1995:40–47).

TABLE 6 Potential Job Losses Attributable to Increased Foreign Content of Aircraft Made in the United States and Total Jobs at Risk Due to Foreign Competition, 1994–2013

	Revenue ($ billions)		Total Job Losses		
Period	Peak Annual Lost Revenue	Cumulative Lost Revenue	Total Jobs	Direct Jobs	Indirect Jobs
1994–1998	1.6	4.0	17,863	10,219	7,644
1999–2003	3.5	17.8	39,498	22,596	16,902
2004–2008	5.4	41.1	60,386	34,546	25,840
2009–2013	7.2	73.5	80,553	46,083	34,470
Projected Losses Due to Declining U.S. Market Share					
	Average Annual Lost Revenue				
1994–1998	2.1	10.7	23,933	13,692	10,241
1999–2003	4.2	31.8	47,194	26,999	20,195
2004–2008	7.3	68.4	81,863	46,833	35,031
2009–2013	12.0	128.6	134,650	77,031	57,619
Total Jobs at Risk Due to Increased Foreign Competition					
1994–1998	3.7	14.7	41,796	23,911	17,885
1999–2003	7.8	49.6	86,692	49,595	37,097
2004–2008	12.7	109.5	142,249	81,378	60,871
2009–2013	19.2	202.1	215,202	123,114	92,089

SOURCE: Economic Policy Institute analysis of DRI/McGraw-Hill (1994: 9–11) and Boeing Company (1994:Appendix C).

multipliers that are much more accurate (and significantly smaller) than those used in the prior study. Second, the share of imported parts and components in aircraft sales is used to estimate the effects of outsourcing. This is a much more precise and appropriate base than the one used in our previous research (trends in total imports as a share of total aerospace sales).

The resulting projections of output and job losses are shown in Table 6. The first panel in the table reports the effects of increased foreign outsourcing, assuming that the trend of increasing foreign content of the past decade continues into the future. The first column of results shows the annual loss in output, relative to

the base year of 1994 in constant dollars.[10] Employment losses are calculated, using the multipliers described above, at the end point of each period. Cumulative losses in output are shown for informational purposes only and are not directly used to calculate employment effects. The employment losses shown are the permanent losses of job opportunities, based on the given annual reductions in domestic output. More than half of all jobs resulting from a given amount of expenditure on aircraft are located in the aircraft and parts industries (direct jobs). Within ten years (by 2003) of the base year, 22,596 aerospace jobs will have been eliminated by outsourcing, plus an additional 16,902 indirect jobs in industries that provide inputs to the aerospace industry, for a total loss of 39,498 jobs. Within two decades, offsets and other forms of foreign outsourcing could eliminate 46,083 aerospace jobs and 34,470 jobs in other industries for a total loss of 60,553 jobs. The direct jobs lost in 2013 would equal 9.6 percent of total aircraft employment in 1994.[11]

This estimate of job loss may be too small for several reasons. First, Bozdogan (1997) and others appear to suggest that the growth of offset activity could accelerate in the future. Second, these estimates do not include any "indirect offsets" in other aerospace or nonaerospace sectors. However, recent reports from the U.S. Department of Commerce (Department of Commerce, BXA, 1996) suggest that indirect offsets are increasing as a share of total offsets, at least in the military sector. Finally, the base of production in 1994 is quite low because the recovery in aircraft production had not yet occurred (see Table 3). If a later base year were assumed, or if we assume that the trend rate of growth in output is positive, then job losses as a result of outsourcing will increase. On the other hand, some suggest that the level of outsourcing is constant or leveling off (Waldmann, 1997). If so, then the outsourcing estimates in Table 6 may be too *high*.

The threat of reductions in the U.S. share of the world commercial aircraft market could have an even larger effect on employment than outsourcing in the next two decades, as shown in the second panel of Table 6. In this case the U.S.

[10]The U.S. market share trend line was derived from historic data (1970—1992), combined with DRI/McGraw-Hill market share projections (1994—2000) and then extrapolated to 2013. Estimated lost commercial jet aircraft sales are derived from the difference between the 1989—1993 average U.S. revenue market share (73.5 percent) and the projected market share described above, using Boeing forecasts for constant 1994 dollar global revenues through 2013. Estimated job losses are derived from Bureau of Labor Statistics (1996) input-output data on the jobs supported by final demand for aircraft, expressed in 1987 dollars for the year 1993, which reports that 13,748 total jobs (7,865 direct and 5,883 indirect) were supported in 1993 by each $1 million (1987 dollars) in final demand for aircraft. Comparable estimates, expressed in constant 1994 dollars (adjusted for changes in aerospace prices between 1987 and 1994) are 11,184 total jobs (6,398 direct and 4,786 indirect) per $1 million of final demand (1994 dollars). These figures were then multiplied by projected revenue losses, from the 1994 base, to estimated lost jobs, as described in the text.

[11]The base of comparison in this example includes only those workers employed in aircraft and parts (Standard Industrial Classification 372).

share of the world market for commercial aircraft, which has been declining since at least 1970, could fall from approximately 80 percent in 1990 to 50 percent in 2003 and 35 percent in 2013, using the assumptions made by Barber and Scott (1995: Figure 11, p. 44). The new multipliers described above are used to estimate the employment effects of the output losses implied by these forecasts. By 2003, 26,999 direct jobs and 20,195 indirect jobs could be lost, for a total of 47,194 jobs lost in aerospace and related industries. Within two decades, 77,031 direct jobs and a total of 134,650 direct and indirect jobs could be lost because of declining U.S. shares of the world market.

The effects of outsourcing and potential losses of international market share are combined in the last panel of Table 6. By 2003, 49,595 direct and a total of 86,692 direct and indirect jobs could be lost in aerospace and related industries. By 2013, these totals increase to 123,114 direct and 215,202 total jobs lost. The direct jobs lost in 2013 would represent 25.6 percent of the total jobs in aircraft production in 1995. Although foreign competition will not eliminate the U.S. aerospace industry in the next two decades, it could greatly undermine employment in this critical high-skill, high-wage industry that, for at least four decades, has been one of America's leading export sectors.

These estimates of jobs at risk hold domestic output and labor requirements constant at levels prevailing in the mid-1990s. Other factors could increase or decrease actual employment in the aerospace industry. Given these assumptions, productivity growth would also reduce employment in the industry. On the other hand, if aircraft and parts exports continue to grow, they would put upward pressure on employment.[12]

This paper does not forecast the impact of changes in overall demand, or of productivity growth. However, it is likely that overall U.S. aerospace employment will follow a declining trend in the future. Both productivity growth and increased foreign competition will put substantial downward pressure on employment. Despite the strong upsurge in aerospace exports and revenues between 1995 and 1997, based on data in Table 3, aircraft sales and industry revenues remained 18 and 22% below their previous cyclical peaks (in constant 1987 dollars) in the early 1990s. The sharp increase in EU market shares between 1992 and 1995 (Figure 3) and the continued improvement in Airbus shares of aircraft sales in 1997, suggest that the U.S. share of the commercial aircraft market may be declining more rapidly than was assumed in Table 6. The surplus in aircraft parts, reflects, in part, aftermarket sales of the existing base of aircraft, which is dominated by U.S.-made planes. Rapid growth in the global stock of Airbus aircraft, and the retirement of older U.S.-made models, will begin to erode this surplus within the next five to ten years.

[12]The need to consider productivity and output growth was noted by David Mowery, who also pointed out that the U.S. trade surplus in aircraft parts and equipment has grown for the past 8 years.

For these reasons, U.S. aerospace employment is likely to decline in the future. Offsets, outsourcing, increased foreign competition and productivity growth will all contribute to these declines. While it is not possible to say which of these factors will be most important, they are all related to the decline of the U.S. as a competitive location for aerospace production, and the falling market shares of U.S.-based aircraft integrators. Expected future job losses in the aerospace industry can only be avoided or reduced through sharp improvements in the competitiveness of the U.S., and of aerospace firms based in this country.

CONCLUSIONS AND POLICY ALTERNATIVES

Other countries are actively targeting the commercial aircraft industry. The Chinese and other Asian governments are using trade and industrial policies to capture production and technologies from the United States. Many of these systems were developed with public support. The U.S. aerospace industry stands at the edge of a precipice. If the challenges it faces are not addressed, at least 215,000 additional jobs in aerospace and related industries will be eliminated over the next two decades.

In Barber and Scott (1995) we develop a broad range of policy recommendations that are needed to restore and maintain the international competitiveness of the U.S. aerospace industry. These include:

- creation of an aerospace executive and an interagency task force within the National Economic Council;
- promotion of aerospace production and employment through reform of government regulatory processes, including those that encourage firms to engage in offsets, and new programs to stimulate domestic demand for aerospace research and products; and
- negotiating fair international trade agreements, including new initiatives to bring China into compliance with the GATT codes and their own Memos of Understanding and other agreements with the United States.

These policies, taken as a whole, could constitute the initiation of a coordinated industrial policy for the aerospace sector. The United States is unique among developed and many of the larger developing nations in its refusal to develop and implement conscious and coherent industrial policies for the aerospace industry. The United States clearly has industrial policies for this sector, but they are uncoordinated, incoherent, and frequently internally contradictory.

Discussion and debate over the past two years, as reflected in the National Research Council conference (Wessner and Wolff, 1997) and in other papers in this volume, clearly suggest that a new national system for monitoring commercial offsets is urgently needed. This system should encompass both mandatory and voluntary offsets.

Additional measures are also needed to address the causes of offset and

outsourcing problems. Defense demand has apparently stabilized, and the industry has begun to recover from a global aircraft glut, but the recovery has had only a small positive effect on industry employment. Foreign competition is now the most important future threat to domestic aircraft demand, as shown above. Rising imports of engines, parts, and components, in particular, are the result of offset deals that Boeing and McDonnell Douglas have made with foreign governments to trade aircraft sales for production and technology transfer. Offsets are the result of a prisoners' dilemma problem. In China, for example, there is effectively only one major buyer in this rapidly growing market (the government), and all three major assemblers are competing for sales by offering offsets. These companies are giving away more technology and production than would be warranted if the market were competitively structured.

Controlling Offsets

U.S. trade problems could be greatly improved through further agreements with the EU. The United States should open negotiations to revise the 1992 Aircraft Agreement with the EU, which technically expired in 1994 when it was excluded from the Uruguay Round Trade Agreements. In addition to reopening the subsidies provisions (which U.S. manufacturers feel are far too weak), there is an opportunity to fix the prisoners' dilemma problem from the supplier's side by prohibiting the export of jobs and technologies in exchange for sales. The EU may also be motivated to participate in such talks because of unresolved concerns about the merger of Boeing and McDonnell Douglas. U.S. firms have opposed a unilateral limit on offsets because they believe it would result in lost sales to Airbus. A new U.S.–EU agreement could benefit both Boeing *and* Airbus by restoring a competitive balance to this industry.

One precedent for government regulation of unfair sales practices is the Foreign Corrupt Practices Act (FCPA) of 1977, which was adopted after the discovery of a $12 million bribe paid in a sale of Lockheed L-1011 aircraft. Despite harsh penalties (both fines and imprisonment), the temptation to cheat may still be irresistible. It was recently reported that General Dynamics paid a $100 million bribe for a Korean military aircraft sale. One problem with the FCPA is that it was imposed unilaterally, and only on U.S. firms. The FCPA approach can serve as a model, but it must be modified to solve the aerospace trade problem.

The solution to the prisoners' dilemma is to impose a new marketing limit (no offsets in exchange for sales) *multilaterally*. The United States and the EU should adopt essentially identical measures proscribing such behavior by firms based in each region. This agreement would reduce the trade and jobs-distorting use of offsets worldwide. This measure should be acceptable to both U.S. and European aircraft manufacturers, because all would experience higher levels of future sales and production than they would without the agreement.

Defining the National Interest

Clearly, the United States has a national interest in aircraft sales and the movement of production and technologies abroad, which is different from that of the aircraft companies. Boeing and McDonnell Douglas may be content to become "virtual companies," designing planes but outsourcing most or all of their production. Stockholders' interests may be protected by collecting royalties on technologies developed with public support in the United States. However, U.S. workers and suppliers will clearly suffer.

Decisions about key aerospace technologies should be designed to protect the national interest in jobs and exports as well as corporate profits. All three can benefit from prompt, effective government action if the United States does not wait too long. If it does, aircraft production could go the way of color TVs and DRAMs (dynamic random access memories), and with it, the U.S. trade balance and future standard of living. If the United States acts quickly, it can retain and rebuild a strong aerospace industry for the twenty-first century and the high-wage, high-skills jobs that go with it.

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Appendix B

TABLE 1

AEROSPACE INDUSTRY EMPLOYMENT, 1982-1998

	Total Aerospace (000)	Aircraft, Engines, and Parts				Guided Missiles, Space Vehicles, & Parts (000)	All Other Aerospace Related Employment (000)
		Total (000)	Aircraft (000)	Engines & Engine Parts (000)	Other Aircraft Parts (000)		
1982	1,038	584	320	149	115	131	323
1983	1,019	562	305	140	117	141	317
1984	1,058	575	306	140	129	154	329
1985	1,151	616	326	148	143	177	358
1986	1,241	656	339	154	163	200	386
1987	1,282	678	356	158	163	206	399
1988	1,294	684	369	156	159	208	402
1989	1,314	711	382	154	175	194	408
1990	1,302	712	381	152	180	185	405
1991	1,214	669	356	143	170	168	378
1992	1,100	612	332	127	153	146	342
1993	966	542	301	109	131	124	300
1994	855	482	271	95	115	108	266
1995	796	451	244	93	114	98	248
1996	796	458	243	95	120	90	248
1997	858	500	263	100	137	91	267
1998e	891	524	273	105	146	90	277
Change in Employment, 1995-98							
Number of Employees	95	74	30	12	32	(8)	29
Percent	11.9%	16.4%	12.2%	12.6%	28.4%	-8.6%	11.7%

Source: EPI analysis of AIAA (1996 and 1998).

TABLE 2

AEROSPACE EMPLOYMENT IN EUROPE, CANADA, JAPAN AND THE UNITED STATES, * 1974-95

	United Kingdom	Other E.U.	Total EU	United States{*}	Canada	Japan	TOTAL
1974	210,100	199,541	409,641	666,000	28,400	29,814	1,133,855
1979	196,566	227,071	423,637	775,000	37,700	31,666	1,268,003
1980	229,821	241,874	471,695	830,000	46,800	32,991	1,381,486
1984	203,202	262,318	465,520	817,000	44,041	34,200	1,360,761
1985	206,677	274,971	481,648	898,000	48,794	34,300	1,462,742
1989	189,911	295,829	485,740	992,000	66,106	38,300	1,582,146
1990	186,337	297,635	483,972	946,000	65,679	39,100	1,534,751
1994	119,353	240,954	360,307	616,000	54,031	38,100	1,068,438
1995	110,549	237,512	348,061	580,000	57,329	38,300	1,023,690
1996							
1997							
1998							

Source: EC (1994 and 1997).

* Figures for U.S. employment only include companies in SICs 372, 376, 366, 381, and 382 and exclude other aerospace-related companies and their employees.

TABLE 3

AEROSPACE INDUSTRY REVENUES
(Constant $1987)

	Total Aerospace ($Millions)	Total Aircraft ($Millions)	Civil Aircraft ($Millions)	Military Aircraft (a) ($Millions)	Missiles (a) ($Millions)	Space (a) ($Millions)	Related Products & Svcs ($Millions)
1979	$71,528	$41,546	$20,830	$20,717	$7,524	$10,307	$12,150
1987	$110,008	$59,188	$15,465	$43,723	$10,219	$22,266	$18,335
1988	$112,426	$59,751	$18,664	$41,086	$10,079	$23,859	$18,738
1989	$113,604	$58,011	$20,644	$37,367	$12,839	$23,821	$18,934
1990	$121,606	$64,573	$28,382	$36,281	$12,833	$23,933	$20,268
1991	$121,508	$66,246	$32,673	$33,573	$9,572	$25,438	$20,251
1992	$117,251	$62,525	$33,754	$28,772	$9,947	$25,238	$19,542
1993	$101,636	$54,314	$27,323	$26,991	$6,973	$23,409	$16,940
1994	$89,160	$46,490	$20,642	$25,848	$6,099	$21,710	$14,860
1995	$85,473	$43,654	$19,005	$24,649	$5,857	$21,717	$14,246
1996	$91,364	$46,987	$21,074	$25,913	$6,309	$22,841	$15,227
1997p	$99,480	$53,048	$29,657	$23,391	$6,358	$23,494	$16,580
1998e	$108,121	$59,540	$36,754	$22,785	$6,003	$24,559	$18,020
Change in Constant Dollar Revenues							
1979-1990	70%	55%	36%	75%	71%	132%	67%
1990-1995	-30%	-32%	-33%	-32%	-54%	-9%	-30%
1995-1998e	26%	36%	93%	-8%	2%	13%	26%

Source: EPI analysis of AIAA (1996 and 1997)

Table 4

THE RELATIONSHIP OF U.S. AEROSPACE REVENUES TO EXPORTS, IMPORTS, AND THE BALANCE OF TRADE
(Billions of Current Dollars)

Year	Total Aerospace Revenues	Total Aerospace Export Revenues	Exports as % of Total Aerospace	Total Aerospace Import Revenues	Imports as % of Total Aerospace	Aerospace Balance of Trade
1979	$45.4	$11.7	25.9%	$1.6	3.6%	$10.1
1989	$120.5	$32.1	26.6%	$10.0	8.3%	$22.1
1990	$134.4	$39.1	29.1%	$11.8	8.8%	$27.3
1991	$139.2	$43.8	31.4%	$13.0	9.3%	$30.8
1992	$138.6	$45.0	32.5%	$13.7	9.9%	$31.4
1993	$123.2	$39.4	32.0%	$12.2	9.9%	$27.2
1994	$110.6	$37.4	33.8%	$12.4	11.2%	$25.0
1995	$107.8	$33.1	30.7%	$11.5	10.7%	$21.6
1996	$116.5	$40.3	34.6%	$13.7	11.8%	$26.6
1997	$129.6	$50.4	38.9%	$18.1	14.0%	$32.3
1998	$136.4	$59.0	43.3%	$22.0	16.1%	$37.0

Source: EPI analysis of AIAA (1996-97 and 1998-99)

Table 5
U.S. Aerospace Exports, by Region
(Millions of Dollars)

	EU-5	Japan	China	Rest of World	Total Exports
1991	$14,768	$3,910	$1,244	$15,626	$35,548
1992	$12,887	$4,505	$2,247	$17,267	$36,906
1993	$10,345	$3,581	$2,384	$15,513	$31,823
1994	$10,716	$4,099	$2,047	$13,188	$30,050
1995	$9,357	$3,587	$1,250	$10,885	$25,079
1996	$9,540	$3,772	$1,705	$14,460	$29,477
1997	$13,775	$5,071	$2,256	$18,973	$40,075
1998p					$48,492

Source: EPI analysis of AIAA (1996 & 1998)

Table 6
Potential Job Losses Attributable to Increased Foreign Content of Aircraft made in the U.S., and Total Jobs at Risk Due to Foreign Competition, 1994 to 2013

Projected Losses Due to Increased Foreign Content

	Revenues ($billions)		Total Job Losses		
	Peak Annual Lost Revenue	Cumulative Lost Revenue	Total Jobs	Direct Jobs	Indirect Jobs
1994-1998	$1.6	$4.0	17,863	10,219	7,644
1999-2003	$3.5	$17.8	39,498	22,596	16,902
2004-2008	$5.4	$41.1	60,386	34,546	25,840
2009-2013	$7.2	$73.5	80,553	46,083	34,470

Projected Losses Due to Declining U.S. Market Share

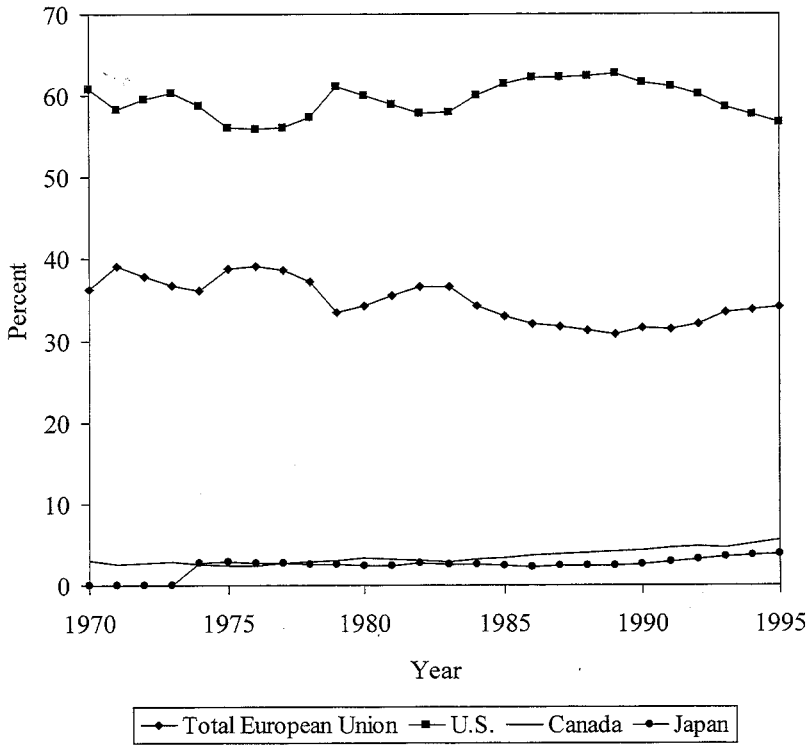
	Revenues ($billions)		Total Job Losses		
	Average Ann. Lost Revenue	Cumulative Lost Revenue	Total Jobs	Direct Jobs	Indirect Jobs
1994-1998	$2.1	$10.7	23,933	13,692	10,241
1999-2003	$4.2	$31.8	47,194	26,999	20,195
2004-2008	$7.3	$68.4	81,863	46,833	35,031
2009-2013	$12.0	$128.6	134,650	77,031	57,619

Total Jobs at Risk Due to Increased Foreign Competition

	Revenues ($billions)		Total Job Losses		
	Average Annual	Cumulative Lost Revenue	Total Jobs	Direct Jobs	Indirect Jobs
1994-1998	$3.7	$14.7	41,796	23,911	17,885
1999-2003	$7.8	$49.6	86,692	49,595	37,097
2004-2008	$12.7	$109.5	142,249	81,378	60,871
2009-2013	$19.2	$202.1	215,202	123,114	92,089

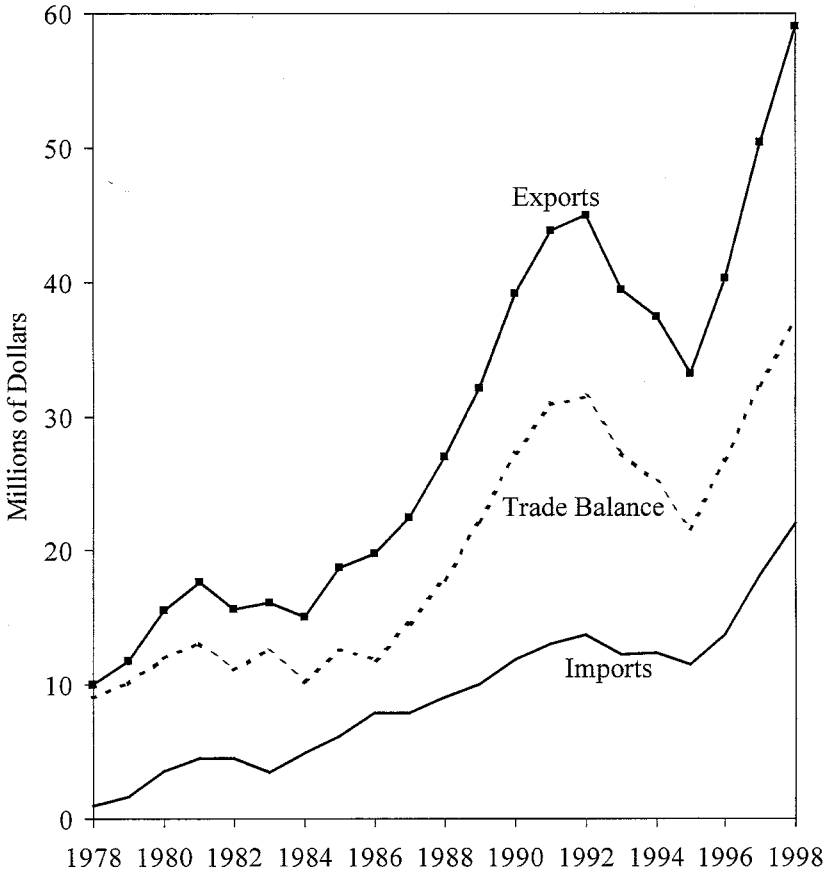
Sources: EPI analysis of DRI/McGraw Hill (1994, 9-11) and Boeing (1994, Appendix C).

FIGURE 1. Shares of triad aerospace employment.



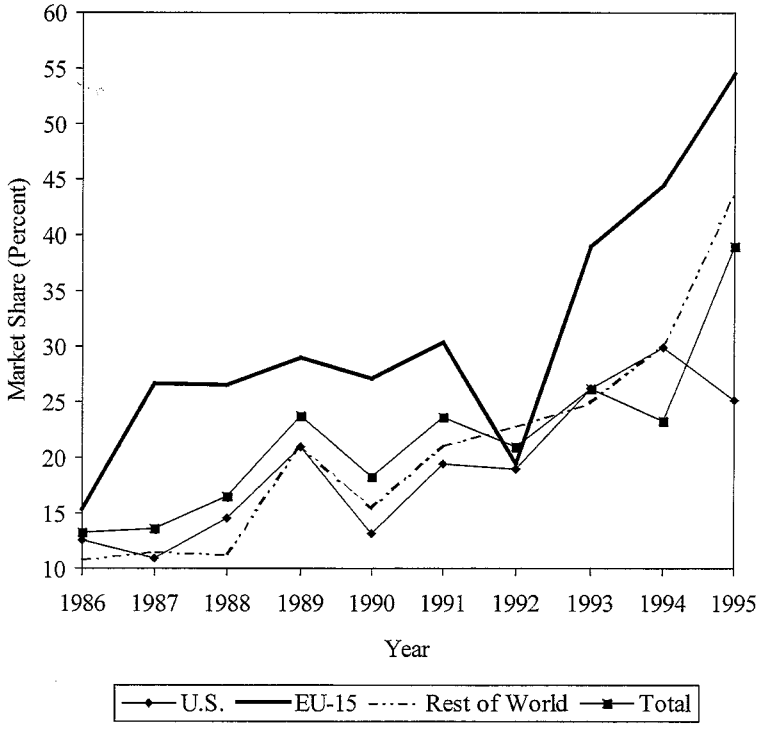
SOURCE: Economic Policy Institute analysis of data from European Commission (1997).

FIGURE 2
Aerospace Exports, Imports, & Trade Balance,
1978-1998



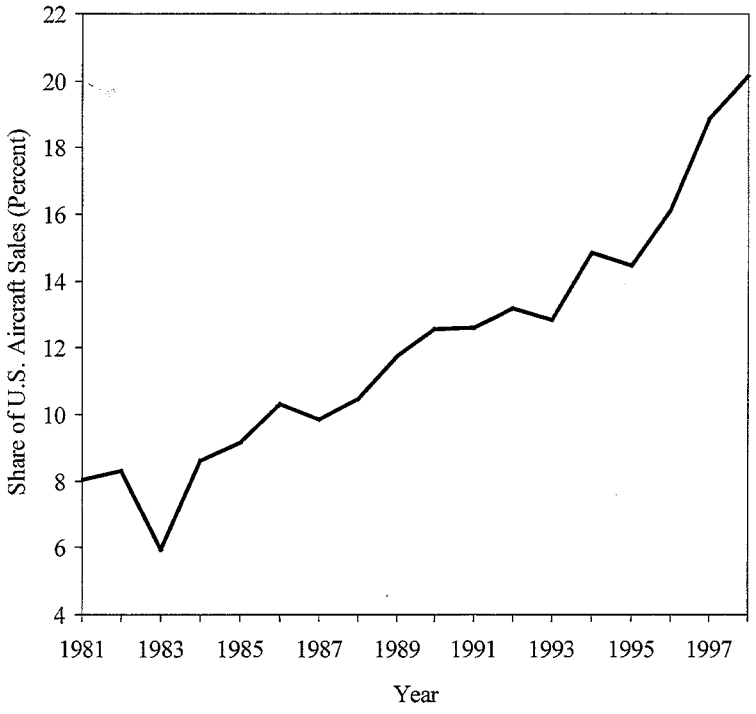
Source: Economic Policy Institute analysis of AIAA (1996-97 & 1998-99)

FIGURE 3. European Union shares of aircraft deliveries by region of the world, 1986-1995.



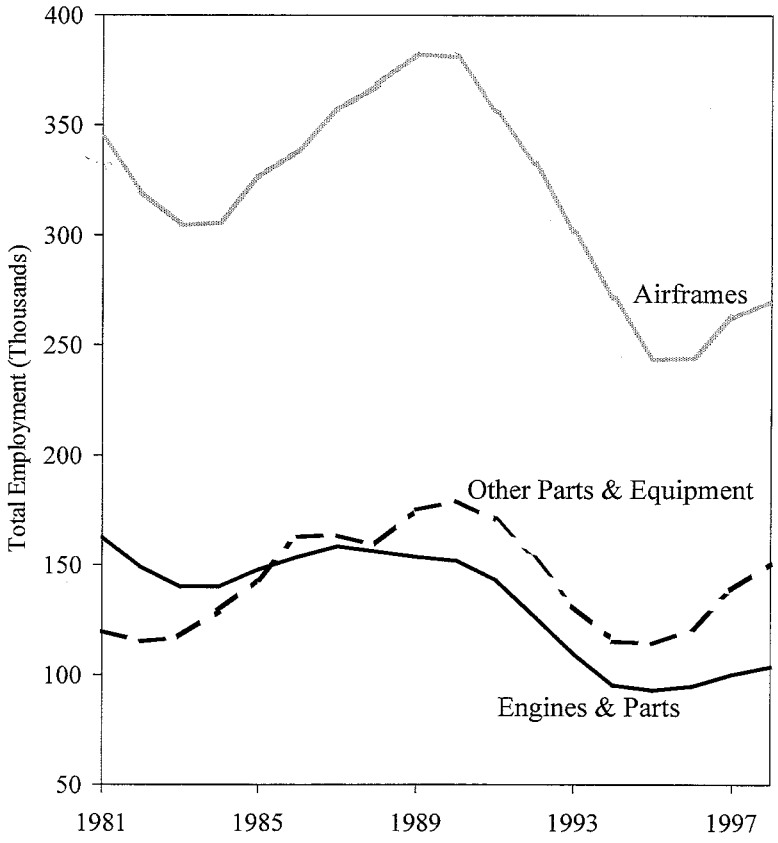
Source: Economic Policy Institute analysis of European Commission (1997).

FIGURE 4. U.S. engines and parts imports as a share of total aircraft sales, 1981-1998.



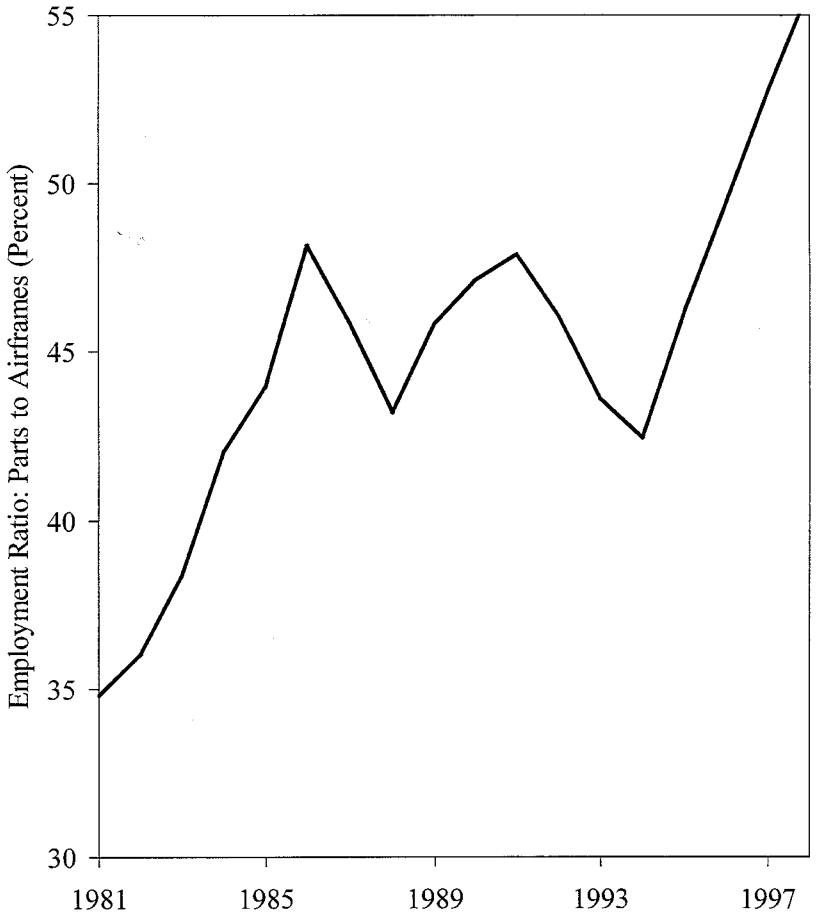
SOURCE: Economic Policy Institute analysis of AIAA (1996,1997).

FIGURE 5
Long-run decline in employment in Aircraft Production, 1981-98



Source: Bureau of Labor Statistics

FIGURE 6
Employment in Aircraft Parts versus Airframes, 1981-98



Source: Economic Policy Institute analysis of BLS data.

Mr. MICA. We will now hear from Mr. Owen Herrnstadt, director of international affairs, International Association of Machinists and Aerospace Workers. Welcome, and you are recognized.

Mr. HERRNSTADT. Thank you very much, Mr. Chairman.

The International Association of Machinists and Aerospace Workers represents workers in a variety of industries, obviously aerospace and manufacturing playing a significant role in our membership. Given the nature of these industries and the negative effects that offsets are having and will continue to have on our members in these and other industries, the IAM has, for several years, been concerned about the use of offsets by U.S. industry. Accordingly, we are grateful, Mr. Chairman, for your invitation to appear before you today, and we are especially grateful for the excellent work that Congressman John Tierney has done in this area.

Offsets create a serious threat to workers throughout U.S. industry, particularly workers in the aerospace industry. Indeed, the transfer of production and technology abroad has had and will continue to threaten U.S. workers as their jobs and the production techniques they have developed as workers move to other countries.

While more information is needed regarding offsets, what we do know about them is highly disturbing. Indeed, the little information that we have should raise alarms for anyone who is interested in maintaining and expanding the success of the U.S. aerospace industry. Research clearly indicates that offsets dominate the defense aerospace industry. Research also indicates that in attempts to satisfy offset demands, U.S. contractors are becoming more and more creative. More and more jobs will be sacrificed in the future to offset demands by other countries. In addition, studies have concluded that offsets have contributed to the ability of other countries to establish their own industries which in turn compete with U.S. companies, and this trend will become more problematic in the future.

Finally, in addition to employment issues, as Senator Feingold mentioned at the outset, offsets also raise serious concerns about our national security. Let me briefly explain some of these points.

First of all, as we all know, offsets are direct in nature, indirect in nature, and I will add a third category, voluntary at times, as more and more companies voluntarily look for marketing schemes. They are extensive. The Bureau of Export Administration reports that an overwhelming number of offsets involve aerospace products, and they are growing.

While we know that offsets are extensive, we also know that inadequate reporting requirements concerning offsets and all of their variations prevent us from knowing exactly how widespread they are.

Aerospace workers have suffered huge job losses over the past several years. As reported many years ago, in work done by my colleague on this panel, Rob Scott, between 1989 and 1995, over 500,000 jobs were lost in the U.S. aerospace industry, and 1 million jobs were lost in related industries. The AIA's own statistics report that in 1989, 153,500 workers were employed in the production of aircraft engines and parts, but by 1998 the numbers of aerospace workers in that category had dropped to 103,500.

Estimates predict that over 200,000 jobs in the U.S. aerospace and related industries will be lost in the future, with offsets accounting for several thousand of these jobs directly related. To make matters worse, these estimates don't reflect all of the indirect offsets, all of the unrelated industries that Senator Feingold mentioned during his testimony, as well as all of the convoluted voluntary marketing schemes that are taking place.

Of course, there are many reasons for the job losses that have occurred and will occur. However, given the importance of the U.S. aerospace and related industries to the Nation's economy, the staggering job losses that workers have suffered and the significant job losses that economists predict they will suffer, any factor that could prevent or mitigate these losses should be carefully examined. Offset policy is a key factor that could help limit losses and should be made a priority.

Let me refer to my statement to refer to industries that have suffered a decline in offsets and ask the question, ''will the U.S. aerospace industry follow suit?'' Without a national comprehensive policy on this issue, that could happen, and that is why the IAM has urged government, for several years now, to initiate a national comprehensive policy on this issue; to establish a permanent review committee that would be made up of members of labor, academia, government and, of course, industry to discuss these issues, to figure out ways we can look at outsourcing, subcontracting, tech transfer, production transfers, licensing procurement, research and development and, of course, information gathering; and also to advise on multilateral and bilateral negotiations regarding offsets, particularly with the World Trade Organization and other international arenas.

Calling offsets a nuisance is unacceptable to the thousands of U.S. workers, their families and the communities where they live that have suffered from these losses. We need to take action now as a government. It is government's responsibility. Thank you.

Mr. MICA. Thank you for your testimony.

[The prepared statement of Mr. Herrnstadt follows:]

Testimony of
International Association of Machinists and Aerospace Workers
Director of International Affairs Owen E. Herrnstadt
Before the U.S. House of Representatives
Subcommittee on Criminal Justice, Drug Policy and Human Resources
"An Oversight Hearing on Defense Offsets in the Aerospace Industry"
June 29, 1999

The International Association of Machinists and Aerospace Workers (IAM) represents over 500,000 members in a variety of industries throughout North America. IAM members work in some of this country's most successful industries; aerospace, manufacturing, shipbuilding and repair, woodworking, electronics, and transportation--just to name a few. Given the nature of these industries and the negative effects that offsets are having and will continue to have on our members in these and other industries, the IAM has for several years been intensely concerned about the use of offsets by U.S. industry. Accordingly, we are grateful for the opportunity to appear before you today. [1]

Offsets create a serious threat to workers throughout U.S. industry, particularly workers in the U.S. aerospace industry. [2] Among other negative effects, offsets will have a growing negative impact on the lives of working Americans, particularly those whose livelihoods depend on the maintenance and expansion of the U.S. aerospace and related industries. Indeed, the transfer of production and technology abroad has had and will continue to threaten U.S. workers as their jobs and the production techniques they have developed as workers move to other countries.

While more information is needed regarding offsets, what we do know about them is highly disturbing. Indeed, the little information we have should raise alarms for any one who is interested in maintaining and expanding the success of the U.S. aerospace industry. For example,

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[1]Many of the issues presented in this testimony are discussed in more detail in "The Role of the United States Government in Setting Offset Policy," *Trends and Challenges in Aerospace Offsets*, National Research Council, 1999, pp 197-211.

[2]Given the dual use of aerospace technology for national defense and commercial purposes and the inability, at times, to distinguish between them, it is difficult to focus solely on the defense side of the aerospace industry when discussing offsets. Consequently, references to the aerospace industry in this statement include both commercial and defense aspects of the industry.

research clearly indicates that offsets dominate the aerospace industry.[3] Research also indicates that in attempts to satisfy offset demands, U.S. contractors are becoming more and more creative.[4] More and more jobs will be sacrificed to satisfy offset demands by other countries.[5] In addition, studies have concluded that offsets have contributed to the ability of other countries to establish their own industries which compete with companies in the U.S. and that this trend will become even more problematic in the future.[6] Finally, in addition to employment issues, offsets also raise serious concerns about our national security. This statement discusses these offset issues.

1. **Offsets Are Significant And Growing**. Offsets can be directly or indirectly related to the goods purchased by foreign countries. Direct offsets involve transfers of technology or production directly related to the purchased product. For example, the production of part of the airframe of a fighter is transferred to a company in a foreign country in return for that country purchasing the fighter. Indirect offsets involve transfers of technology, production, or other innovative schemes unrelated to the product being purchased. For example, in return for an agreement by one foreign government to purchase a jet fighter made in the U.S., the U.S. producer of the fighter agrees to find someone in the U.S. who will purchase a paper making machine (an unrelated product) from a company in the foreign country.

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[3]The term "offsets" as used in this testimony refers to a broad range of trade related activities, including, the transfer of technology and production, licensing procurement, subcontracting, research and development, foreign investment, countertrade, and co-production. It also includes voluntary marketing schemes that contractors enter into outside of mandates from foreign governments. See e.g., U.S. Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, As Amended*, Bureau of Export Administration, Reports to Congress, August 1996-1998. See also, Randy Barber and Robert E. Scott, *Jobs on the Wing: Trading Away the Future of the U.S. Aerospace Industry*, Economics Policy Institute, 1995.

[4]*Id.*

[5]See Comments of Kirk Bozdogan and Robert E. Scott, *Trends and Challenges in Aerospace Offsets*, National Research Council, 1999.

[6]*Id.* See National Research Council, *Trends and Challenges in Aerospace Offsets*, 1999. See also, Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, as amended*, Bureau of Export Administration, Reports to Congress, August 1996-1997. United States General Accounting Office Report to the Honorable Russell D. Feingold, U.S. Senate, Defense Trade, "U.S. Contractors Deploy Diverse Activities to Meet Offset Obligations," December 1998, Office of Strategic Industries and Economic Security, Bureau of Export Administration and DFI International, "U.S. Commercial Technology Transfers to the People's Republic of China," January 1999.

Offsets in the aerospace industry are extensive. The Bureau of Export Administration reports that more than half of all U.S. offsets involve aerospace products.[7] The Bureau also notes that indirect offsets are growing.[8]

While we know that offsets are extensive, particularly in the aerospace industry, inadequate reporting requirements concerning offsets and all of their variations, prevent us from knowing exactly how widespread they are. Although some reporting requirements exist for the defense side of the industry, reporting requirements for the commercial side of the industry are virtually nonexistent. Moreover, the reporting requirements that do exist basically exclude the direct and indirect effects that these offset agreements have had on aerospace and related industry subcontractors and producers in unrelated industries that are caught in the offset trap.

2. **Job Losses In Aerospace Are Staggering**. Aerospace workers have suffered huge job losses over the past several years. Between 1989 and 1995, over a half million aerospace jobs were lost in the U.S. aerospace industry and one million jobs were lost in related industries. According to the Aerospace Industries Association (AIA), more than 1.3 million workers were employed in the industry in 1989. By 1998 less than 900,000 workers were left. Specifically, in 1989, 153,500 workers were employed in the production of aircraft engine and parts. By 1998 the number of aerospace workers in that category had dropped to 103,500. These losses are even more dramatic for employment in the production of guided missiles and space vehicles. The AIA reports that in 1989, 137,100 workers were employed in the industry but by 1998 this number had been reduced by more than 50 percent to 61,900 workers.

3. **Job Losses in Aerospace Will Grow in the Future**. Estimates predict that over 200,000 jobs in the U.S. aerospace and related industries will be lost by 2013 with offsets accounting for roughly 45,000 direct jobs.[9] Unfortunately, with the downturn in the Asian economy and announcements last December by Boeing of substantial reductions in employment, this prediction is unfortunately coming true. To make matters worse, estimates on future job losses are probably understated as more and more workers of aerospace industry subcontractors lose their jobs as their work is moved abroad to satisfy offset deals.

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[7]See e.g., U.S. Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, As Amended*, Bureau of Export Administration, Reports to Congress, August 1996-1998. See also, Randy Barber and Robert E. Scott, *Jobs on the Wing: Trading Away the Future of the U.S. Aerospace Industry*, Economics Policy Institute, 1995.

[8] *Id.*

[9]See Comments of Rob Scott, *Trends and Challenges in Aerospace Offset*, National Research Council, 1999. See also, Randy Barber and Robert E. Scott, *Jobs on the Wing: Trading Away the Future of the U.S. Aerospace Industry*, Economics Policy Institute, 1995.

Of course there are many reasons for the job losses that have occurred and for the job losses that will occur. However, given the importance of the U.S. aerospace and related industries to the Nation's economy, the staggering job losses that aerospace workers have suffered, and the significant job losses that economists predict they will suffer, any possible factor that could prevent or mitigate these losses should be carefully examined. Offset policy is a key factor that could help limit losses and should be made a priority.

4. **Competition With Foreign Companies Intensifies.** Many foreign competitors in the aerospace and related industries emerged with significant assistance from the sophisticated national offset policies that exist in their countries. The countries that are home to these competitors have implemented detailed offset policies that helped to establish them in the global market. A large number of them have become quite successful and are now in direct competition with U.S. companies. A survey of U.S. aerospace suppliers found that there was a 50 percent decrease "in the number of direct production suppliers between 1991 and 1995... in both the commercial and defense sides" of three sectors of the aerospace supplier base: "airframes, electronics and avionics, and engines and other."[10] Studies indicate that the effects of offsets and the direct competition that has developed from the creation of these foreign sub-tier producers will intensify in the coming years. This development will further erode the aerospace manufacturing base in the United States leading to an additional decline in U.S. aerospace and related industry employment.

5. **National Security Concerns Have Been Raised**. Offsets can lead to the transfer of technology and production to other countries which raise national security issues. Offsets foster proliferation of defense systems abroad and contribute to the shrinking of "the essential sub-tier defense production base at home."[11] They increase the ability of other countries to produce their own weapons systems. "Even seemingly minor kinds of aerospace offsets can aid in the development of a weapons system by such things as enhancing 'the platforms used for the delivery of chemical or biological weapons.'"[12]

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[10]Comments of Kirk Bozdogan, *Trends and Challenges in Aerospace Offsets*, National Research Council, 1999. See also, Todd A. Watkins, "Dual-Use Supplier Management and Strategic International Sourcing and Aircraft Manufacturing," *Trends and Challenges in Aerospace Offsets*, National Research Council, 1999.

[11]Summary of Comments of Carol Evans, *Policy Issues in Aerospace Offsets: Report of a Workshop*, National Academy of Press, Washington, DC, 1997, cited in "The Role of the United States Government in Setting Offset Policy," *Trends and Challenges in Aerospace Offsets*, Owen E. Herrnstadt, National Research Council, 1999.

[12]See, Owen E. Herrnstadt, "The Role of the United States Government in Setting Offset Policy," *Trends and Challenges in Aerospace Offsets*, National Research Council, 1999, containing quote from Comments of Carol Evans. It should also be noted that the transfer of

If history shows us anything, it is that the negative effects of offsets on U.S. industry will not be resolved by leaving offset policy to private parties. Indeed, two of this Nation's most successful industries have been decimated, in part, by offsets. The U.S. shipbuilding and ship repair industry has lost millions of jobs over the years and offsets are attributed as a significant factor in the industry's decline.[13] Similarly, the U.S. machine tool industry has also suffered a decline due, in part, to the significant use of offsets.[14]

Will the U.S. aerospace industry follow suit? For the hundreds of thousand of workers in the industry, their families, and the communities where they live, this question is of the utmost importance and one whose ultimate determination should not be left in the hands of private parties whose bottom line is profit-- regardless of whether that profit is made from production at home or abroad.

This why the IAM has argued for several years that relegating national offset policy to private parties is irresponsible. We have on numerous occasions invited our government to acknowledge immediately that offsets are a serious issue and establish a comprehensive national policy on this issue. The IAM continues to urge the government to establish a permanent, high-level commission consisting of representatives of labor, industry, government and academia to develop this policy by addressing the numerous issues related to offsets, including: offsets; licensing procurement; subcontracting; subsidies; technology transfer; production transfer; research and development; foreign investment; export sales and financing; countertrade; and information gathering.

The Commission should coordinate all domestic discussions and multilateral (and bilateral) negotiations aimed at advancing a comprehensive, coordinated national and international policy on offsets. The Commission should also make sure that memorandums of understandings--which contain loopholes and which are, in effect, unenforceable-- are rejected. Additionally, the Commission should establish a mechanism to, among other things, advise

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technology in the aerospace industry has triggered past reviews. Recall the transfer of machine tools to China several years ago for use in production of commercial aircraft that were ultimately supplied to a Chinese company that produced military equipment. See U.S. General Accounting Office Report to Congressional Requesters, *Export Controls: Sensitive Machine Tool Exports to China*, November 1996.

[13]See, Remarks of Cynthia L. Brown, American Shipbuilding Association, *The Offset Summit*, January 21, 1999.

[14]See e.g., U.S. Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, as amended*, Bureau of Export Administration, Report to Congress, August 1997.

Congress on legislation concerning offset reporting requirements and establishing offset monitoring procedures.

The United States can no longer be complacent with leaving offset policy in the hands of private parties. The conclusion of some people that offsets are at best, a way for the U.S. to enter foreign markets and at worst a "necessary evil" must be rejected once and for all. While much more must be learned about the precise impact that offsets and all of their variations have on the U.S. work force, what we do know is that labeling offsets as "an inconvenience" or a "necessary evil" is an unacceptable response to the U.S. aerospace workers, their families and the communities that have made this industry so successful.

The U.S. Government must take action now to develop a comprehensive policy to address offset issues. The IAM, welcomes this opportunity to once again, urge our government to take a bold step forward on this very important matter.

From "Trends and Challenges of Aerospace Offsets," Board of Science, Technology, and Economic Policy, National Research Council, National Academy Press, Charles Wessner, Editor, Washington, DC 1999.

The Role of the United States Government in Setting Offset Policy

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INTRODUCTION

Many countries force U.S. aerospace companies to transfer high-skilled jobs and valuable technology to them in return for the purchase of U.S. aerospace products. In order to gain market access in countries with "direct" offset requirements, U.S. based contractors compensate these countries in some form "directly related to the system being exported".[2] For example, in return for purchasing jet fighters or commercial airplanes, U.S. contractors agree to produce part of the jet fighter or the commercial airplane in the purchaser's country. In addition to direct offset requirements, countries are increasingly requiring U.S. contractors to satisfy "indirect" offset requirements that include compensation in forms that are "unrelated to the exported item".[3] Under this scheme, for example, instead of forcing a transfer of defense production, U.S. contractors would rely on the commercial aerospace industry to satisfy military offsets. In some cases, non-aerospace industry products, are also relied on to satisfy offset arrangements.

Although offset arrangements are traditionally linked with a country's trade practices, similar arrangements are becoming more common through voluntary

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[1]Director for the International Affairs Department, International Association of Machinists and Aerospace Workers. This paper is based on a presentation made at a National Research Council Workshop on offsets held on June 9, 1997, in Washington, D.C. The views expressed herein are those of the author and do not necessarily reflect the views of the IAM. It should be noted that while this paper focuses on offsets in the aerospace industry, offsets in other industries require similar attention.

[2]Trade Promotion Coordinating Committee, National Export Strategy: *Toward the Next American Century: A U.S. Strategic Response to Foreign Competitive Practices*, U.S. Government Printing Office, Washington, D.C. 1996, p. 155.

[3]*Ibid.*

agreements reached between private parties. These "offset-like" arrangements may include a direct or indirect type of offset arrangement. While for policy purposes, a distinction as to what kind of offset is involved may be important, for workers who face their negative effects, distinctions are of little relevance. For purposes of discussion in this paper, the term "offsets" is used broadly, to include both direct and indirect offsets and offset-like arrangements "voluntarily" agreed to by private parties.

While these sophisticated offset policies and marketing schemes are increasingly utilized by other nations to promote the development of foreign aerospace industries, the United States demonstrates little interest in developing a comprehensive policy of its own. But the U.S. government can no longer afford to leave the world of offsets to the actions of other nations and private parties. The stakes are too high. Offset arrangements in the defense and commercial aerospace industry result in the loss of U.S. jobs and technology to other countries. In some cases, they can pose a threat to our national security.

Consequently, government must play a strong role in developing policies that address the rapid acceleration of offsets in the aerospace industry and their negative effects on U.S. aerospace workers. In addition to the projected loss of thousands of jobs, over time the effects of these arrangements could result in the decline of the U.S. aerospace industry, one of our greatest remaining export industries. This paper examines why the federal government must take a leadership position in setting offset policy in the U.S. aerospace industry by reviewing the health of the aerospace industry from the view of the aerospace worker; the increasing threat offsets pose to aerospace workers and the national interest; the serious lack of current *and* accessible information on offsets, the need for coordination of offset policy within government, and the need for coordination of offset policy between the numerous private parties that are involved either directly or indirectly with offsets.

THE PROBLEM

The U.S. Aerospace Industry Worker Faces a Gloomy Future

The impact that offsets have on the U.S. work force receives little attention from public policy makers. Periodically various labor statistics are quoted in articles about offsets. However, few people have focused on the effects that offsets are having, and will increasingly have, on the lives of real workers, their families, and the communities where they reside. The condition of these workers is especially important for a number of reasons.

First, U.S. aerospace workers are in large part responsible for building the U.S. aerospace and defense industries and for making them the leaders that they are in the world today. U.S. aerospace workers are loyal and proud of the companies they work for and the communities that they live in. They share common

desires to have secure employment, earn reasonable wages, and receive decent benefits. They also want to work in a safe and healthy environment and spend quality time with their families. We owe our allegiance to them, just as they have given their allegiance to us.

In addition, preserving and expanding decent jobs in the aerospace industry makes good economic sense. These jobs are generally high-skilled, high-wage jobs. Consequently, the Clinton Administration has recognized their importance in today's economy. In his opening remarks to a National Research Council workshop on offsets, Gene Sperling, Director, White House National Economic Council, "stressed that the goal of the Administration is to develop the best policy to create high-wage jobs for American workers . . . Job retention and job growth in the aerospace industry is important to achieving the overall goal of a more secure and higher-paid workforce."[4] Although the Administration's goal is highly laudable, much work needs to be done in order to ensure that it is achieved.

Employment Prospects and Income Effects

Employment prospects for U.S. aerospace workers are troubling. One estimate concludes that between 1990 and 1994, the U.S. lost roughly 500,000 jobs in the U.S. aerospace industry and roughly 1 million other jobs which are "dependent" on the U.S. aerospace industry.[5] This represents a staggering decline of almost 40% of U.S. aerospace employment for the five year period. For aerospace workers who have lost their jobs and for those who risk losing their jobs in the coming years, the decline in employment is painful.

The International Association of Machinists and Aerospace Workers, (IAM) the labor organization which represents the largest number of workers in the aerospace industry, conducted a 1996 survey of its members who had lost their jobs in the aerospace industry.[6] The survey involved displaced workers from two large aerospace and defense companies, Lockheed-Martin in Marietta, Georgia and the Boeing Company in Seattle, Washington. The results indicated that at the time of the survey only a small group of aerospace workers who were laid off remained employed in the aerospace industry (16.8 percent).[7] The average displaced aerospace worker reported earning nearly $3 less per hour than they earned in their

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[4]Summary of Comments of Gene Sperling, Director, White House National Economic Council, *Policy Issues in Aerospace Offsets: Report of a Workshop* (hereinafter referred to as "*Workshop*"), National Academy Press, Washington, D.C., 1997, p. 1.

[5]Randy Barber and Robert E. Scott, *Jobs on the Wing: Trading Away the Future of the U.S. Aerospace Industry*, Economics Policy Institute, Washington, D.C. 1995, p. 1.

[6]IAM Strategic Resources Department, *IAM Survey of Displaced Aerospace Workers*, November 1996.

[7]*Ibid.*, p. 2.

previous aerospace job.[8] Nearly half of the respondents to the survey indicated that they were earning less than 75 percent of their previously hourly rate.[9]

Not surprisingly, this dramatic decline in income has had a substantial impact on workers' families. In some cases, it has significantly changed the family structure. An increasing proportion of the spouses of respondents were forced to find employment. Approximately one-third of spouses who were not working prior to the layoff were working at the time of the survey.[10]

In addition to their drastic reductions in income, displaced workers also lost valuable benefits. For example, roughly 75 percent of respondents lost health insurance coverage when they were laid off.[11] The majority of respondents indicated that when they finally obtained new employment, their health care coverage was worse, or much worse than the coverage they previously had.[12] Even more troubling was the finding that laid-off workers suffered from an increasing number of physical ailments. A growing number suffered from increases in high blood pressure, heart problems, digestive tract problems, and sleep disorders.[13]

The trauma of suffering a loss of job, particularly in a high-skilled, high-wage industry like aerospace was poignantly conveyed by the words of IAM members who were laid off. One respondent in the IAM survey reported, "[A]fter being laid off, my self-worth has gone to zero. Our financial outlook is bleak. It's very hard to make ends meet, even with two working."[14] Another member explained, "The thing that was so bad, was [losing] the hope of having the chance of gaining anything for old age . . . ."[15]

Indeed, opportunities for decent employment in the U.S. aerospace industry are gloomy. Researchers predict that approximately 250,000 jobs are in jeopardy in the aerospace and related industries by the year 2000, and almost 500,000 jobs at risk by 2013.[16] "Direct jobs lost in 2013 would represent 25.6 percent of the total jobs in aircraft production in 1995."[17]

The Impact of the Asian Crisis

That some aerospace companies are currently hiring high-skilled workers does not lessen the impact that offsets are having and will increasingly have on

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[8]*Ibid.*
[9]*Ibid.*
[10]*Ibid.*
[11]*Ibid.*
[12]*Ibid.*
[13]*Ibid.*
[14]*Ibid.*, p. 3.
[15]*Ibid.*
[16]Barber and Scott, *Jobs on the Wing*, p. 2.
[17]Scott, "The Effects of Offsets, Outsourcing, and Foreign Competition on Output and Employment in the U.S. Aerospace Industry," presented to National Research Council Symposium on *Trends and Challenges in Aerospace Offsets*, January 14, 1998.

the U.S. aerospace worker. The recent hiring frenzy in the commercial aerospace industry is taking place in the midst of a booming economy. What will happen when the economy takes a downturn? Moreover, the number of aerospace workers that have recently been hired does not even begin to make up for the massive job losses that have occurred over the last several years. Nor will these recent hirings be able to minimize the negative impact that offsets will have on the U.S. workforce in the future. In addition, claims that there are not enough aerospace workers to fill current job demands may be, in part, due to decisions by former aerospace workers laid off prior to the boom to seek employment in more stable industries. Lastly, what will happen in the aerospace industry if the ripple effect from the Asian financial crisis turn into a Tsunami? Sub-tier producers and their employees in the U.S. may especially feel the brunt, as prime contractors face cancellations and manufacturing costs drop even lower in Asian countries, making bids for remaining work even more competitive.

The increasing reliance on offsets is one factor that is contributing to the gloomy picture of aerospace employment in this country. While no one would argue that the huge layoffs that have occurred in the U.S. aerospace industry were caused solely by the practice of using offsets, it is irresponsible to ignore the serious effects that offsets can have on such an essential industry—an industry that is key to the economic health and prosperity of our country. Consequently, every possible cause for the sharp decline in employment that has occurred or that may occur in the future must be explored.

Offset Arrangements are Becoming a Standard Way To Do Business

The use of offsets as a marketing tool is increasing in both defense and commercial aerospace industries. In fact, since the 1980's, indirect offsets have grown even faster than direct offsets.[18] As offsets take new forms, their effects are blanketing the commercial aerospace industry: "Current information leads to the conclusion that indirect offsets are increasingly the norm."[19] In the defense industry, the use of offsets has undergone "a substantial increase in new obligations over previous years, both in value and as a percentage of export contracts."[20] Although some people contend that offsets open certain markets, their effects can be negatively felt by other areas of the economy. Indirect offsets may have

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[18]Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, as amended*, Bureau of Export Administration, Washington, D.C., 1996, p. 71.

[19]Summary of Comments of William Reisch, *Workshop*, p. 20.

[20]Department of Commerce, *Offsets in Defense Trade: A Study Conducted Under Section 309 of the Defense Production Act of 1950, as amended*, Bureau of Export Administration, Washington, D.C., 1997, p. i.

"unfavorable consequences for subcontractors and increased risks for a wide range of companies throughout the U.S. economy."[21]

The U.S. Department of Commerce, Bureau of Export Administration Defense Diversification Needs Assessment Survey program covering the period 1993-1994, found that 83% of subcontractors who responded to the survey that they were "positively or negatively impacted by offsets" had been "harmed" rather than helped by offsets.[22] Furthermore, one-third of the 1,100 transactions examined involved " partial or full production" of the items sold in the country which purchased them.[23] " In many cases, this has led to the creation of redundant or excess defense manufacturing facilities."[24] In other words, these offsets have resulted in over-production capability in the defense industry. To the extent that over-production in the defense industry negatively affects production in the commercial aerospace industry, sub-tier producers that employ thousands of aerospace workers are also affected.

New Entrants Pose Risks to the U.S. Supplier Base

Dr. Kirk Bozdogan of the Massachusetts Institute of Technology also sees the danger of the increased use of offsets. He explained during an NRC workshop that the use of offsets will increase and warns that they "will pose serious risks for the U.S. supplier base."[25]

Indeed, he reports that the U.S. supplier base has decreased drastically (by 50%) in the aerospace industry over the period 1991–1995.[26] He also concludes that foreign programs in offset requirements will lead to too much production capability and warns of increasing costs and competitive pressures on U.S. companies that provide components and other items that support the major aerospace companies.[27]

These findings are consistent with the observations of those who report that numerous countries around the world have well-developed strategies to build their own aerospace industries through offsets. "A number of these competitors have the goal of developing a full-service commercial aerospace industry. China is assembling entire Western designed jetliners . . . . Japan is mounting a systematic effort to become a first-tier aerospace manufacturing power . . . . Even only

[21]*Offsets in Defense Trade*, 1996, p. 71.

[22]*Ibid*, p. 63; Cited in Trade Promotion Coordinating Committee, *National Export Strategy*, 1996, pp. 162–163.

[23]*National Export Strategy*, 1996, p. 163.

[24]*Ibid.*

[25]Summary of Comments of Dr. Kirk Bozdogan, *Workshop*, pp. 27–28.

[26]*Ibid.*, p. 28.

[27]*Ibid.*

recently industrializing countries . . . have joined over thirty other participants in the global contest for a share of aerospace."[28]

In their 1995 study, *Jobs on the Wings*, Barber and Scott document the strength of the growing Chinese aerospace industry and its close ties to U.S.-based aerospace manufacturers:

"China is already working closely with McDonnell Douglas assembling Western-designed commercial aircraft as part of a coproduction arrangement to manufacture 40 MD-82s and recently finalizing an agreement for the production of 20 MD-90 'Trunkliners' in China, with dramatically increased Chinese content (reportedly 85% by the end of the production run)."[29]

Aerospace industries are also burgeoning in Japan, South Korea, Indonesia, and Taiwan.

Among other activities, the South Koreans have attempted the development of an "Asian Airbus", and have had a number of production contracts with U.S.-based aerospace companies.[30] Taiwan has also been advancing toward the establishment of a viable aerospace industry with advantageous offset requirements that insist "that U.S. companies 'promise to allow Taiwan to build aircraft and engine parts, acquire U.S. technology, and receive training and other support for its developing aeronautics industry'."[31] Indonesia's entry into the world's budding aerospace industries is also growing. Its state-owned aerospace company already "produces numerous military and commercial aircraft under licensed production agreements".[32] It also "makes significant parts for all three major aircraft manufacturers."[33]

Insufficient Information About the Effects of Offsets

In general, there is a serious lack of information about offsets and their effects on workers. While the government has limited knowledge of military offsets, it has little knowledge about the nature, extent, and impact of offsets in the commercial aerospace industry. Unfortunately, under the current situation, this type of information is next to impossible to obtain. First, the corporate culture which relies on confidentiality to maintain competitive advantage makes it difficult for workers to obtain information about offsets. If workers were aware of the impact that specific offsets were having or were going to have on them, they could work with the company in an attempt to either avoid or minimize their

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[28]*Conflict and Cooperation in National Competition for High-Technology Industry*, National Academy Press, Washington, D.C., 1996, p. 88.

[29]Barber and Scott, *Jobs on the Wing*, p. 62.

[30]*Ibid.*, p. 66.

[31]*Ibid.*, p. 67.

[32]*Ibid.*

[33]*Ibid.*

negative effects. However, if workers are not made aware of the offsets, let alone their effects on the workforce, they cannot offer their expertise in alleviating the harmful effects that offset arrangements can have on their jobs.

One of the consequences of a company's failure to inform its workers fully about their offset arrangements is that it fosters distrust and other forms of ill-will. If workers are not told the truth about corporate marketing schemes they may assume that the company is not protecting worker interests. This is especially true if a company moves production overseas as part of a lucrative transaction that is the result of an offset arrangement. Distrust is also generated by false employer claims that job reductions are a result of business downturns when they are really a consequence of offsets.

An arrangement that was made by one company in the early 1990's illustrates these problems.[34] It had entered into a co-production deal for F-16's with South Korea. "This deal provided for South Korea to purchase a total of 120 aircraft, of which 72 would be manufactured and assembled in South Korea, 36 would be assembled from kits in South Korea, and only 12 would actually be made by [the company's] workers in Fort Worth."[35] From the workers point of view this offset arrangement was bad enough, but how the company sought to fulfill its offset arrangement made things worse.

According to the union which represented workers at the company, the company wanted to bring 500 South Koreans into the plant to train them while at the same time, approximately 3,000 union members at the facility were on lay off.[36] The union objected. "The protest put a stop to this scheme . . . we thought. But then we learned that [the company] simply arranged for these . . . workers [from Korea] to be trained at the F-16 plant in Turkey!"[37]

Information about offsets is also difficult to obtain because the fundamental nature of offsets makes information difficult to track. The mere fact that offsets are spread throughout the world taking a multitude of forms makes it extremely difficult to gather complete information. While offsets can have immediate impact on prime contractor production, their effects on sub-tier producers may be harder to trace. When indirect offsets, that affect a multitude of aerospace and non-aerospace companies, are involved it becomes even more difficult to track the offset's effects. This is especially true if companies who are engaged in offsets do not make the effort to monitor the direct and indirect effects of their own arrangements.[38]

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[34]See. Barber and Scott, *Jobs on the Wing*, p. 37–38.

[35]*Ibid.*.

[36]*Ibid.*

[37]*Ibid.*, p. 38.

[38]See, Summary of Comments of Carol Evans, Workshop, p. 14.

Offsets Can Lead to Conflicts

Critics of a strong government role in setting policy on offsets and similar marketing schemes often contend that government intervention is unnecessary because corporate interests do not conflict with public interests. They fear that unless they are permitted to freely engage in offsets, markets will remain closed, and overseas competitors, who are eager to meet offset demands, will displace U.S. aerospace companies as the leading suppliers of aerospace products throughout the world. They argue that this can only result in harm to the United States aerospace industry and the U.S. economy. They argue that threats of massive job losses and threats to national security because of offset arrangements are unfounded. Job losses, they say, will be made up by increased market share in the world economy. Moreover, they claim that national security will not be threatened because they are careful not to transfer sensitive technology abroad.

In today's global economy, multinational companies know no boundaries.[39] In fact, this is precisely why they *are* multinational companies. Consequently, the loyalty of U.S.-based multinationals to the U.S. may not be as strong as some would have us believe. After all, numerous U.S.-based corporations have moved production facilities to other countries in the search for lower labor costs as well as other perceived "advantages" available in other countries, leaving workers who devoted their careers to them without jobs and the communities which fostered their growth empty.

Market access is essential, especially in high technology trade. Offsets, which enable companies to gain access to other markets, might in some cases be necessary compromises. However, where possible, the U.S. government should eliminate these market restraints. In any event, offsets must be limited when the public interest is jeopardized. There has already been a prior discussion regarding the public's interest in minimizing the social and economic effects from job losses that occur as the result of offset arrangements in the aerospace industry. Two other issues resulting from the aerospace industry's growing reliance on offset arrangements concern the public's essential need for national security and the necessity of balancing the impact of one corporation's offset arrangements against the interests of another corporation.

National Security Impacts

Offsets threaten the national security by fostering proliferation of defense systems abroad and by shrinking the essential sub-tier defense production base at home.[40] The use of offsets increase the capability of developing countries to

[39]See, William Greider, *One World Ready or Not: The Manic Logic of Global Capitalism*, Simon & Schuster, 1997.

[40]Summary of Comments of Carol Evans, Workshop, pp. 14–15.

produce their own weapons systems. Even seemingly minor kinds of aerospace offsets can aid in the development of a weapons system by such things as enhancing "the platforms used for the delivery of chemical or biological weapons."[41] Thus offsets can help to expand the defense capabilities in developing countries thereby creating a greater military threat to the U.S.[42]

In addition, assisting the development of a defense industry in other countries may have the "spiraling" effect of encouraging these countries to seek additional offsets to further supplement their defense production capabilities.[43] "Offsets adversely affect the U.S. supplier base by aiding foreign competitors at the same time that the supplier base is being hit by shrinking defense budgets. Shrinking budgets then lead to a further squeeze on suppliers to give even more offsets."[44]

Examples of national security problems that have been caused, at least in part, from offset arrangements abound. Technology transferred to Brazil through an offset resulted in an improvement of targeting capability of the Iraqi Scud missile system.[45] Under another offset arrangement, McDonnell Douglas sold machine tools to the China National Aero-Technology Import and Export Corporation to be used for production of commercial aircraft.[46] Some of the tools, however, were transferred to the Nanchang Aircraft Company which produces Chinese military equipment.[47]

Domestic Impacts

Offsets also harm other U.S. domestic companies that operate in the industry participating in the transaction. For example, prime contractors trying to expand their access to international markets are unlikely to be concerned by the effects on domestic sub-tier producers whose sales might be substituted for foreign goods as part of offset arrangements. Transferring production of one piece of a defense system to a producer in another country may be inconsequential to a prime contractor, but to a subcontractor, who is able to concentrate on only a few programs, it could be fatal.[48] The following comments which were received when the Defense Diversification Needs Assessment Survey was conducted illustrate how the offsets which "benefited" one aerospace company affected another aerospace or aerospace-related company:[49]

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[41] *Ibid.*

[42] *Ibid.*

[43] *Ibid.*

[44] *Ibid.*

[45] *Ibid.*

[46] U.S. General Accounting Office Report to Congressional Requesters, *Export Controls: Sensitive Machine Tool Exports to China*, November 1996.

[47] *Ibid.*

[48] See Summary of Comments of Chip Block, *Workshop*, p. 33.

[49] *Offsets in Defense Trade*, 1996, pp. 63–64

- A world-class aerospace and naval forging manufacturer in the Midwest stated that they had "lost significant amounts of work due to prime contractors utilizing foreign sources to satisfy offset requirements."
- A northeastern precision aerospace machine shop reported, "[W]e've lost 20 percent of our business to mandated offset agreements. In the future this will grow substantially. This is our number one problem."
- A manufacturer of rolled rings for aerospace applications stated, "[O]ur company has been significantly affected by [prime engine contractor's] offset agreements to Asia and Europe. I estimate that our company has lost more than 50 percent of our business due to offset agreements."
- A west coast machine shop reported, "[W]e've lost processing work on the jobs that went overseas as a result of aircraft and military hardware sales." Another aerospace machine shop stated, "[T]he aerospace prime contractor we supply] participates in an offset program which seems to have introduced increased competition and possible lost orders to American manufacturers."
- A midwest company that designs and manufactures pumps and valves for aircraft applications reported, "[N]ew competitors created as a result of offsets. Foreign countries now designing indigenous aircraft using this technology."
- A western producer of castings for commercial, aerospace, and defense industries reported, "[N]ew competitors were created or strengthened due to an offset program, hence, we lost the contracts."

The Impact of Indirect Offsets

The growing and innovative use of offsets also creates conflicts between corporations in different industries. In one situation, "Northrop Corp. offered $1.5 million to persuade a U.S. company to buy a $50 million papermaking machine" from a Finnish company.[50] A competitor, based in the U.S. who also makes paper-making machinery, had wanted the sale. "The offer followed a promise by Northrop to the government of Finland to produce American customers for Finnish goods if Finland would purchase F-18 fighter jets from the U.S."[51] Afterwards, a 1994 law was enacted regulating such transactions, by prohibiting "certain types of incentive payments related to offsets".[52]

Last year U.S. Senator Russell Feingold (Wis.), who authored the 1994 law, asked the U.S. Department of Justice to investigate an alleged violation by McDonnell-Douglas.[53] He was specifically concerned that McDonnell-Douglas may have used a tactic similar to the one used by Northrop to satisfy an offset

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[50]As reported in Aerospace Daily, *Justice Dept. to investigate if McDonnell Douglas broke offset law*, January 3, 1997, p. 15.

[51]*Ibid.*

[52]*Ibid.*

[53]*Ibid.*

arrangement.[54] He feared that a U.S. company lost out on a sale.[55] Senator Feingold summarized the conflict: "It is difficult to be competitive when you are being outbid by foreign competitors assisted by huge defense firms. . ."[56]

It is not just lack of coordination between private entities that are of concern. There also appears to be a serious lack of coordination between public entities. For example, while the Administration seemingly grapples with this issue, the Federation Aviation Administration (FAA) issued regulations concerning "Fees for Providing Production Certification-Related Services Outside the United States." Basically, the FAA's regulation makes it possible for it to sell its services to facilities located outside the United States. The FAA noted in its proposed regulations that some of the "advantages" received by engaging in production of "complex parts, sub-assemblies, or products" outside the United States include:

1. Taking advantage of lower labor costs; and
2. Fulfilling certain aircraft purchasing requirements that require a production approval holder to produce a percentage of the aircraft within the purchasing country.[57]

Somehow the FAA, believes that such a rule would not impose a significant cost impact "on a substantial number of smaller entities." It also dismisses concern that implementation of the proposed rule could have a serious negative impact on U.S. aerospace workers.

The FAA's conclusion flies in the face of studies which conclude the danger of relying on offsets. And while in its final rule, the FAA claims the new rule itself "takes no position on the use of offsets,"[58] the FAA also clearly states that it "recognizes that the indirect effect of this rule may increase the use of facilities and suppliers outside the United States."[59]

A FRAMEWORK FOR PROVIDING A SOLUTION.

Given the negative and growing effects of offsets on U.S. aerospace employment, the lack of accessible information on offsets, the lack of coordination within the U.S. government, conflicts between corporate interests and public interests, a comprehensive national policy on the use of this trade mechanism is needed.

Current efforts are inadequate. While the government, though its Trade Promotion Coordinating Committee (TPCC) Report should be commended for acknowledging that offsets are growing and that there is a woeful lack of informa-

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[54]*Ibid.*
[55]*Ibid.*
[56]*Ibid.*
[57]U.S. Federal Register, Volume 62, Number 135.
[58]U.S. Federal Register, Vol. 62, Number 207.
[59]*Ibid.*

tion about offsets in the commercial aerospace industry, it is simply not enough to merely note that offsets are increasing and that there is a lack of information about them. The Administration must also acknowledge the serious threats that offsets have on producers, U.S. workers, and the communities in which they reside. And, of course, the Administration must also accept that it has a strong role to play in developing a national policy on offsets.

A stronger role for the Administration means much more than what is called for in the 1997 Trade Promotion Coordinating Committee report. In that report the TPCC describes its meager plan for 1998, which is centered on more ad hoc consultations involving affected groups with the somewhat vague notion of establishing "mechanisms that will both encourage a consensus among the various interests on this issue and provide TPCC agencies with an inventory of information that could be used as a basis for determining the impact of offset requirements and whether any U.S. government action is warranted."[60] But the government must acknowledge *now* that offsets are a serious problem and immediately begin to develop an effective framework for resolving it.

The United States requires a solid policy on offsets, not least because "every other serious aerospace nation has a coordinating body charged with nurturing and advancing domestic aerospace manufacturing, technology acquisition, and, of course, employment. The United States should do no less."[61]

How should we begin to formulate this policy? To begin with, the U.S. government must acknowledge the serious effects that offsets are having and will have on the aerospace industry. It must recognize the current utilization of offsets must be better understood.

A Commission

In order to gather information on offsets, a formal commission should be established by the President. The idea for such an entity is not new.[62] Several reputable studies have recommended it. Such an entity would bring together representatives from industry, labor, government, and academia to facilitate the gathering of information and to engage in meaningful dialogue over what can be done to establish a real policy on offsets—a policy which would promote the U.S. aerospace industry and its workers.

The commission would recommend policy and coordinate activities through efforts that would include a review of:

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[60]The National Export Strategy Trade Promotion Coordinating Committee 5th Annual Report to the United States Congress, October 1997, p. 63.

[61]Barber and Scott, *Jobs on the Wing*, p. 78.

[62]See, e.g. *High Stakes Aviation, U.S. - Japan Technology Linkages in Transport Aircraft*, National Academy Press, Washington, D.C., 1994, p. 94; Barber and Scott, *Jobs on the Wing*, p. 3.

— transfer of jobs,
— transfer of technology,
— research and development,
— export sales and financing,
— review of license production and co-production agreements,
— subcontractor production,
— counter trade, and
— foreign investment.

The commission would also advise the Administration in negotiating relevant agreements and understandings with our trading partners. A priority should be given to negotiating restrictions on debilitating offsets that lead to arrangements that hurt U.S. aerospace workers. The commission could also develop a program to train and re-employ displaced aerospace workers. This program should allow workers who lose their jobs because of offsets to receive retraining and be eligible for trade adjustment assistance.

The commission could also develop concrete methods for facilitating the collection of data on offsets from both the public and private sectors. One approach is to require that any contractor directly or indirectly receiving federal monies identify and report specific information regarding offsets.

Importantly, this information should also be accessible to the public. The public has the right to know how its money is being spent. It has the right to know if its money is going to retain and create good jobs at home as or is being used to subsidize the creation of jobs in other countries. The public should also know if technology that was developed by their tax dollars is being transferred abroad.

CONCLUSION

Offsets create serious questions for policy makers concerned with the public interest. As discussed in this paper, offsets will have a growing negative impact on the lives of working Americans, particularly those whose livelihoods depend on the maintenance and expansion of the U.S. aerospace and related industries. Offsets can also have a very serious impact on the national security as valuable technology finds its way into other nations' defense-related activities. Furthermore, offsets have pit one group of private corporate interests against another as prime contractors sacrifice their relationships with sub-tier producers to satisfy offset arrangements.

Responsibility for creating a framework for resolving the issues that offsets raise lies with the U.S. government. Among other things, only the U.S. government has the resources and the authority for determining how we should proceed. Unfortunately, the U.S. government has yet to make any serious efforts in setting offset policy. While our government continues "dabbling" with the issue—meet-

ing with interested parties on an ad hoc basis and encouraging "further discussion" on this topic—other nations have well-established policies on offsets and are moving rapidly toward utilizing their policies for their own benefits.

We can no longer idly sit by and relegate to U.S. private interests the sole responsibility of negotiating with other nations' governments over offset issues. To do so would be to abandon the role that government must play in protecting the public interest.

As the stakes get bigger and the pieces to the offset puzzle become more difficult to identify, we, as a nation, can no longer sit back and let other countries and the hundreds of private parties that are involved in the offset game set our course. It is time for the U.S. government to take a strong leadership role in developing our long over-due policy on offsets.

Mr. MICA. I thank all of our panelists for their statements.

First I have a question for Mr. Johnson. What happens to a company that fails to fulfill its offset requirements, and how enforceable are offsets?

Mr. JOHNSON. Offset agreements will frequently have some financial penalty that will be imposed on a company for not completing its offsets. Quite frankly, I don't know of any U.S. company that has paid such liquidated damages. Generally, if there is a problem fulfilling them, you normally renegotiate the offset agreement because the country is not interested in getting paid a financial penalty, they are really interested in obtaining some kind of tech transfer or new capability they don't have.

Companies do have contractual legal arrangements which would involve financial penalties. But, in point of fact, I don't know of any company that has ever paid one.

Mr. MICA. We heard Senator Feingold talk about one of the things that he helped institute legislatively, but what has been the effect of prohibitions against the third-party incentive payments in offset negotiations?

Mr. JOHNSON. Probably very little in that that was—in over a decade of reporting, this is the only case of this sort of smoking gun that I know of, and it happened in a very narrow market where the buyers and sellers are extremely few. And we urge offset managers to avoid those situations when we have meetings of offset managers because you like to see indirect offsets spread about, just like you like to see normal trading relations.

If anything, it may have slightly increased real offsets. One of the practices that had occurred in the past, there were several operators who would look at normal companies that imported a great deal, a Pier One, for example, find out what they were importing from a country like Thailand, and who had an offset obligation in Thailand. You would go to the company and say, for 2 or 3 percent, I can get you a large offset obligation liquidated. They would go to Pier One and say, I can buy down what you are already doing for 1 percent, and basically nothing whatsoever would happen except a company would get a lot of offset credit. Nothing changed in the real world. The Feingold rule basically knocks those guys out of the picture. So you probably have more real offset now than when he passed his law, in point of fact. A law of unintended consequences.

Most offset doesn't involve financial stimuli. It involves basically the ability to bring a buyer and seller together. When you have companies that do $20, $30, $40 billion a year with extensive networks around the world and a lot of offsets accomplished by offshore activity that never would have affected the United States at all.

Mr. MICA. Additionally, we have had recent or offset reporting requirements. Can you tell us how they have affected industry?

Mr. JOHNSON. As I said in my statement, we have no problem sharing with the government information as to what we are doing. What we do have problems with is sharing with a broader public which basically, unfortunately, sets new thresholds. When the Commerce Department comes out and says that the average European demand for offsets is 100 percent, it is hard for a country in

Latin America or Southeast Asia to ask for less because the United States Government is saying that is what the new minimum is.

I don't know how you get around that. Part of the job of an offset manager is to make an offset look as attractive as possible to the foreign customer with as little effort as possible, but the percentages are going to look high, and they are going to tell everybody else that is the percentage that you should be shooting for. In terms of practices of the industry, probably very little. In terms of raising offset demands, it probably has had some impact.

Mr. MICA. Dr. Scott, you kind of linked offsets to job losses in your testimony, and you have a significant number of charts and data that you submitted, but isn't it true that we have had job losses in the aerospace and defense industry primarily from downsizing; if you looked at where we are losing jobs, downsizing in the defense industry, that is one. And then, two, you could probably trace most of the other job loss to Airbus, which has now become a big player and taken Boeing and some of the other aerospace business away from us.

Can you give us any hard numbers as to what offsets in both defense and commercial we could tie to lost jobs?

Mr. SCOTT. It is difficult to develop hard numbers because we don't have any hard statistics on the exact volume of offset transactions, particularly in the commercial sector. This is one reason why in my various reports I have supported proposals to begin to collect data on offsets in the commercial sectors. So, in the absence of that kind of data, it is very hard. Thus I have developed estimates based primarily on this information in figure 4 that I discussed in my testimony which show the increase in the share of imports of parts and components relative to U.S. production of military and commercial aircraft. And in the absence of hard data, I think that is the best proxy for measuring the effect of offsets and other forms of outsourcing on employment in the United States.

Mr. MICA. I am not sure if it was Mr. Johnson or Dr. Scott who said that they favored no statutory or other limits imposed by Congress. Who had the list? Was that you?

Mr. JOHNSON. I would—certainly we would oppose, but I think what my colleagues——

Mr. MICA. Who wants to own up to that statement?

Mr. JOHNSON. We argued that there should be no unilateral effort by the U.S. Government in terms of imposing restraints on U.S. industry which would not be imposed on our competitors, but I think my colleagues probably agree with that to some degree.

Mr. MICA. I see some disagreement. It is very difficult sometimes when they have purchase agreements or manufacturing agreements because you want to manufacture some of those goods in their country, and in most cases it is their money. When it is our money, it is a different story. When you get into the question—and some of you raise the point about the technology transfer, sometimes they want technology transferred as part of the deal. Don't you think we have a responsibility, given, say, the China incident—again, someone raised that—to impose some limits and to put some restrictions on technology transfers? We will start with Mr. Johnson.

Mr. JOHNSON. It should be pointed out, in the first place, that any technology transfer that is of military significance must have a license from the State Department. Companies cannot transfer technology as part of an offset or as a straight commercial deal without going through the Department, which is referred almost invariably to the DOD. Any technology transfer from a security perspective has been approved by the U.S. Government.

Mr. MICA. And there are adequate protections in place, you feel?

Mr. JOHNSON. We believe so.

Mr. MICA. Dr. Scott.

Mr. SCOTT. I would make two comments. First, I want to carefully distinguish restrictions on—unilateral restrictions on offset agreements and multilateral restrictions. I would tend to agree with Mr. Johnson. I think unilateral restrictions could be counterproductive, but I think multilateral restrictions where we both agree not to engage in destructive behavior, say, the United States and Europe, would be in our interest. That is the first point.

And I think that with respect to the question of technology, even in the commercial sector, our European counterparts argue that there are indirect benefits to commercial R&D that flow out of defense spending.

I think there certainly are some overlaps there. So I think even in the commercial sector, where the commercial industry might argue that it is their technology to give away, we have a national interest in control of that technology, and I think we should be looking carefully at that question.

Mr. HERRNSTADT. I think you have raised a very good point. I think there are two questions when it comes to unilateral restrictions on offsets. One is, we don't even know what we are talking about yet in terms of the exact information and data, so we need to start with that, before we can come to those hard-core conclusions.

Two, we need to know exactly what we are talking about in terms of unilateral activities regarding this issue. Offsets have a very broad definition. Some have included things like outsourcing, subcontracting, licensing procurement, which has already been mentioned, research and development, export sales and financing, and many, many other topics. So each of those needs to be looked at to find out what is best for the U.S. worker, at least from our viewpoint, when it comes to those issues.

If I could be so bold just to make one response to the first question you asked about the job losses, one of the areas that is very undercounted, is the effect that job losses have had from the subtier producers. The Bureau of Export Administration has some very fine anecdotal evidence regarding subcontractors who have been very hard hit by offsets. Presumably when they are hard hit, their work force is also hard hit. So when we are talking about job losses, we need to look at the entire labor market and the labor economy.

Mr. MICA. Mr. Herrnstadt, if you would permit me just a quick followup, you wrote an article recently, the Role of the U.S. Government in Setting Offset Policy, and you pointed out that there is a serious lack of current and accessible information on offsets; and

then you go on to explain that information about offsets is also very difficult to obtain.

How do we obtain the information? How do we get a basis to make judgments on? Again, this goes back to—you just answered the first question, but you left sort of a blank here about what we do as far as laws and regulation in this area. And Mr. Tierney wanted an answer to that, too.

I could go into more depth and, in fact, I will let him finish the rest of the question, but we are here trying to see what we need to do as far as Federal policy, and that is where we need your recommendations. So if you could elaborate, and then I will just recognize Mr. Tierney.

Mr. HERRNSTADT. OK. Would you like me to go ahead?

Mr. MICA. Yes. On his time.

Mr. HERRNSTADT. In my written statement, I point out that one of the things a commission would do, one of the things Congress could do is look at more detailed reporting requirements in terms of Federal procurement. There could be more detailed reporting requirements for export sales and financing issues. Those are the types of things that need to be looked at to compel prime contractors to report more specific data, not only in terms of offsets in their broadest definition, but also in terms of how they affect the subtier producers on that.

Mr. MICA. Mr. Tierney.

Mr. TIERNEY. Thank you. Tell me, what now is required to be reported to the Commerce Department with regard to these offsets?

Mr. HERRNSTADT. Well, Congressman, I think there is someone from the Commerce Department that is testifying next, and they will probably have more specific information about that. I am aware of the information that the Bureau of Export Administration has now put out, I believe for 3 years, which is a very good, but obviously, it is very difficult to find out where the specific offset is, how it has specifically affected workers and, also, how it specifically affected the entire network of not only subtier producers, but also those that are in industries that normally one would think would be unrelated to the actual aerospace activity.

Mr. TIERNEY. I would just make the comment that we have had a number of subcontractors contact our office and tell us that they are just horrified by the situation of losing contracts, but they are also afraid to come forward, frankly, because they have to maintain a relationship with people in the industry and they do not want to lose what remaining work they have. So we are stuck, in a number of cases, with anecdotal evidence of what is going on, and in fact, in some instances where contracts have been stopped dead in their tracks—a 3-year contract ended after 1 because a situation arose—if they are going to keep any work at all, they can't really complain and come forward and testify here.

Mr. Johnson, right now, as I understand it, U.S. companies are not required to provide copies of their transaction papers to the Commerce Department. Is that accurate?

Mr. JOHNSON. What we provide to the Commerce Department on an annual basis is a record of every transaction over $100,000 to help implement an offset agreement.

Mr. TIERNEY. But you needn't provide copies of those transaction papers; it is just whatever you say it is in the form that you want? So that none of the sales contracts, none of the written offset agreements or the related paperwork ever goes to Commerce?

Mr. JOHNSON. That is correct.

Mr. TIERNEY. But they do go to the other government that you are dealing with?

Mr. JOHNSON. The guy that has bought the product in the first place, correct.

Mr. TIERNEY. They get all of that reporting. And the U.S. companies are not required to give the Commerce Department copies of the reports that you prepare for the foreign purchaser either? You have a particular form that you prepare for them in addition to the documentation?

Mr. JOHNSON. Every offset agreement will require different reporting—some annual; some will run into the hundreds of pages of print-out pages per quarter, and that is why we agreed with Commerce on a threshold so that we will be looking only at those transactions which at least had some dollar value of importance. I would argue even a $100,000 transaction, if it were at all critical, we should probably put the Marines at that installation because it is the jugular of the United States. This is an industry of $140 billion, so when we start getting down to the $100,000 transaction——

Mr. TIERNEY. But whatever limit you set to start reporting, it seems to me that it would be worthwhile to have copies of the sales contracts, the offset agreements and other related paperwork go to the Commerce Department.

Mr. JOHNSON. Well, you could do that, but it won't give you a context to put those in.

Mr. TIERNEY. Well, then the report that you give to the other country or the other customer, that would be helpful too.

Mr. JOHNSON. But what it doesn't tell you, Congressman, is that the F–16 line would be shut down altogether today if it weren't for exports, that the F–18CD line will shut down.

How do you put that in the context of what you are providing for offsets? There would be no assembly line, no work for subcontractors whatsoever. That is not in those reports that we give to the foreign businesses, so that you have to have some——

Mr. TIERNEY. Could I interrupt you for a second? It is your contention that there would be no work left for us if we didn't do offsets?

Mr. JOHNSON. There are a number of lines that are open only because of exports. The U.S. Air Force only bought something like 12 airplanes last year, fighter aircraft.

Mr. TIERNEY. We have enough in the budget to buy a zillion.

Mr. JOHNSON. The point is, we would not exist without exports; it is as simple as that.

Mr. TIERNEY. Exports that come with offsets?

Mr. JOHNSON. They almost all come with offsets, sir.

Mr. TIERNEY. So this thing has grown to the point where you don't make a foreign sale without having offsets involved?

Mr. JOHNSON. Generally, that is correct.

Mr. TIERNEY. And we can't really tell what effect it is having on our economy unless we get more information, and you object to more information being given?

Mr. JOHNSON. What we object to is publicizing it. We also argue that it doesn't make sense to have one kernel of information if you don't have a context to put it in.

Mr. TIERNEY. Why can't Commerce put it in context? They are capable people.

Mr. JOHNSON. We have spent 20 years. You can ask the DOD guys when they come up——

Mr. TIERNEY. You mean the Commerce people?

Mr. JOHNSON. No, the Defense guys for years have tried to track that, and indeed this shop in Commerce, you try to look at subsectors of the industrial base to see what is domestic content, what is foreign, and it is almost impossible in today's economy. It is just too complicated.

Again, one's guess, and I think my—is that offsets occur within the $8 billion to $9 billion worth of military exports in the aerospace industry. They have held reasonably constant over the last 10 to 15 years, they are actually going up a bit this next couple of years, I suspect, in a $140 billion industry.

It is very hard to wash out the $2 billion or so in offset obligations activity which Commerce reports each year. Basically, they are reporting about $2 billion in offset obligations in a $140 billion industry. Now, how you disaggregate what each subcontractor deal might have in the overall nature of our industry, it would be very hard without having some information other than just what is going on with this $2 billion.

Mr. TIERNEY. Mr. Scott, what would you need?

Mr. SCOTT. Well, I think we need more case studies, actually. I think that it is a complicated issue. I could recommend one to you by Professor Watkins from Lehigh University that was included in this NRC volume, that we all participated in, that was published earlier this year.

Mr. TIERNEY. You are going to tell me now what you specifically think ought to be reported to Commerce so that we can determine——

Mr. SCOTT. Yes. Let me get right to the point. In addition to the defense offset information, we ought to be collecting information about commercial offices.

Mr. TIERNEY. What information should we collect and how should we collect it?

Mr. SCOTT. I think, as Mr. Herrnstadt suggested, that any time there is government financing involved, we ought to require that any offset transactions ought to be at least reported, if not, as perhaps you suggest, have the actual documentation submitted as well. So I think that would certainly advance our knowledge of the issue.

Mr. TIERNEY. Mr. Herrnstadt, would that be enough for you?

Mr. HERRNSTADT. Well, I think that would be a good start. I think ultimately what we would want to know is anything where taxpayer money is used to fund any offset in any form, whether it is defense-oriented or commercial-oriented, we would want to know

the effect that has on the actual U.S. work force that is involved in any way in that offset.

Now, in terms of putting that together, that package together, that is something I think we need to think about in more comprehensive terms, and we need to get many more people together to figure out exactly how we can do that. But that way we can get a clear picture about exactly what is going on in this system that is becoming wildly out of control, and we don't know comprehensively where everything is going, what the impacts are on all different aspects.

Mr. TIERNEY. It seems that everybody agrees that most of the defense reduction job losses occurred between 1989 and 1995, and the statement was also made that the foreign content now in many of these aerospace products has doubled in the last decade or so. Is that a fair indication that these offsets in outsourcing and work like that are in some combination having a tremendous adverse effect on jobs?

Mr. SCOTT. I would certainly agree that, yes, the offsets in outsourcing are having a tremendous impact and will have more so in the future.

Mr. TIERNEY. And Mr. Herrnstadt, is that your impression? How do you separate out the two, the outsourcing versus the offsets?

Mr. HERRNSTADT. I think they are very difficult to distinguish, very difficult.

Mr. TIERNEY. Now, is there any concern—Mr. Johnson, I suspect that you are not overly concerned about this from your testimony, but is there any concern about the fact that the aerospace industrial base that we have around here may be sort of being dissipated through this process, and that we have a national security interest in trying to find out the adequate amount of information on that angle, too?

Mr. JOHNSON. All I can do is point to the statistics that even with the reduction of over—of 60 percent in defense procurement, we are producing today in real dollars what we were producing 10 years ago, and exports have doubled as a percentage of what we are producing. That is not a litmus of a sick industry or a litmus of one that can't hold its own competitively.

Yes, foreign content, we quibble over the percentages, I think because a lot of it has to do with Rolls Royce engines coming in and going back out on Boeing airplanes, but the fact is that exports have also doubled as a percentage of what we produce and, therefore, it is not entirely surprising that you would have an increase in foreign content.

Mr. TIERNEY. So when I see folks at General Electric in Lynn, who are some of the best workers in the world in this area, and they are in fear of losing their jobs and they see things like that Korean contract that I talked about, it is not to worry?

Mr. JOHNSON. I can sympathize with the chaps at Lynn, but I would also note that were it not for those exports, a lot more of them would be on the streets. They primarily make military engines up there.

Mr. TIERNEY. Unless, of course, we did something about this offset business, we might get back to where we want to be.

Mr. JOHNSON. If you could wave a magic wand and make other parliaments not concerned about spending their taxpayers' money on imports, there wouldn't be a problem.

Mr. TIERNEY. We have a situation where—you take the European people, this is a jobs thing for them. They need a product that we make and they don't make in a lot of instances, so the deal is, they want to buy it from us. But they want to be able to tell the folks back home the reason they had to buy a superior product from the United States was so that they could have jobs; and they spin it that way.

You mean to tell me that we can't deal with that issue? I mean, it seems to me we are making a superior product and we ought not to have to bargain where we give them jobs, and technology to boot on top of that. It should be quality, price, and drive the bargain.

Mr. JOHNSON. That would be wonderful in an ideal world, if they were private consumers, but just as I don't think you can identify a single major DOD purchase from offshore that has not had a U.S. prime and been produced in the United States——

Mr. TIERNEY. The difference being that we have a product that they need, and they don't have anything comparable in many of these instances. They would like to have that kind of leverage.

Mr. Herrnstadt, I see you are nodding over there. We have that kind of leverage where we make the superior product that they need, so why are we also giving them jobs in technology in this thing?

Mr. HERRNSTADT. I think you have asked a very poignant question. I think—there are two comments that come to mind. One is, we do not know that if it weren't for the offset, we would not make the sale. After all, the things that we make in the aerospace industry here in the United States are quality. They are the best in the world. That is why the U.S. aerospace and related industries have become the success, the world leaders that they are.

The second is, the whole issue of engaging in both bilateral and multilateral negotiations regarding offsets. There are a limited number of engine makers and airframe makers throughout the world. There are world trade organizations in the world that do put restrictions on different types of trade requirements. Those also need to be focused on, so that we can take care of what some people call a nuisance, others call a real threat.

Mr. TIERNEY. Now, the comment was made, too, that if we are going to do that, if we are going to start addressing this, we might be in a bad position because we have requirements like Buy American and things of that nature. What is your impression of that? Are we going to have to put something on the table and walk away from some other policies in order to try to have these multilateral and bilateral agreements that address offsets and hopefully eliminate or reduce the impact?

Mr. HERRNSTADT. I think the first thing we need to do before we even get to that question is to look seriously at the offset issue in terms of a multilateral negotiating stance. I mean, I have here a copy of the country reports on economic policy and trade practices from March 1997, talking about the Netherlands, and there is an actual subsection for offsets for defense contracts where there are well-defined policies in other countries which specifically, specifi-

cally look at offsets. That is where we need to start. That is what we need to start looking at first.

Mr. TIERNEY. Thank you. I am going to defer to Mr. Gilman, who is very patient.

Thank you for your patience.

Mr. MICA. Thank you. We will get back to you, Mr. Tierney.

The gentleman from New York, Mr. Gilman, you are recognized.

Mr. GILMAN. Thank you, Mr. Chairman.

I ask all the panelists, what would you say if we outlawed offsets?

Mr. JOHNSON. I take it if you outlawed offsets—and this perhaps gets back to one of the points Mr. Tierney made. The Europeans, who are the largest demanders of offsets, particularly in terms of military; this is a region with 12 percent unemployment, which has also had a shrinking defense industry.

They have two other choices than buying American with offsets: One, they produce it themselves even if the quality might not be as good; and second, they have the alternative of not buying anything.

As we noted in Kosovo, one of the reasons we had to take 80 percent of the burden is because the Europeans don't buy very much. They cut their defense budgets more rapidly than we did. They don't have to buy American. They have two other alternatives. In the case of the Apache helicopter to the U.K. or to the Netherlands, the alternatives were buying the German-French attack helicopter or not buying an attack helicopter. And I think what you would find, Congressman, if we were to outlaw offsets, you would see our defense exports drop by 40, 50 percent, and you would see our European allies even less prepared to work with us in the next combat.

Mr. GILMAN. So you are willing to live with the offset problem?

Mr. JOHNSON. Absolutely, as a better alternative than any other alternative we can come up with.

Mr. GILMAN. Mr. Scott.

Mr. SCOTT. I am not willing to again unilaterally outlaw offsets. I think that could have negative consequences for U.S. trade, U.S. exports. But I think a multilateral restriction on offsets would certainly help producers in both the United States and Europe, both in terms of employment and technology.

Mr. GILMAN. Dr. Herrnstadt.

Mr. HERRNSTADT. We need to do much more work on offsets to find out exactly what they are before we think about the topic you are talking about. Exactly what are the offsets? We need to know the impact on them, and then we need to know what it is we need to do as a Nation. We need to develop a comprehensive national policy on this issue.

Mr. GILMAN. What sort of a policy do you recommend?

Mr. HERRNSTADT. Well, I think we need to look at whether or not offsets in all of their many forms—commercial, defense-oriented, direct, indirect, voluntary marketing schemes—how they actually affect the U.S. work force; and we need to figure out what works and what doesn't, what will maintain the U.S. work force and expand the U.S. work force and expand the success of an industry like the U.S. aerospace and related industries.

Mr. GILMAN. Well, assume that you find it affects the work force. What kind of a recommendation would you make?

Mr. HERRNSTADT. Oh, I think then we need to figure out exactly what it is we need to do to resolve the issue, and I think——

Mr. GILMAN. That is what we are asking. How do we resolve the issue?

Mr. HERRNSTADT. That's right. And that is why we have urged this high-level commission where we can get everyone together, to get all of the information that is possible, to look at all of the nuances, all of the different aspects of offsets on this. When offsets end up sacrificing U.S. jobs and technology overseas, then we need to do something about that, to curtail that.

Mr. GILMAN. Assume we do apply some restrictions on offsets, if you find it affects jobs, and we get the EU and other nations to agree, how do we enforce that kind of a restriction?

Mr. HERRNSTADT. Well, I am no expert on the World Trade Organization, but one suggestion would be to look at the remedies or enforcement provisions of the WTO and other international trade bodies.

Mr. GILMAN. Dr. Scott, do you have any suggestions, assuming there is an agreement on restricting offsets? How would you enforce——

Mr. SCOTT. In addition to working through the WTO, I think we could also rely on—to some extent on self-enforcement. The Foreign Corrupt Practices Act has been in place for a number of years. It has, I believe, successfully reduced bribery in international transactions.

I think in the same way, if the United States and Europe agreed to outlaw offset agreements, or to restrict them in some very specific way, that each country or region could be relied on to enforce its own agreements in its own region.

Mr. GILMAN. Mr. Johnson, why are you objecting to publishing an offset agreement?

Mr. JOHNSON. Simply because you are providing a cookbook to every other guy that is out there wanting offsets. As I have said, we don't have a problem working with the government and sharing with our own government that information. What we dislike is sharing that information with 80 other governments who demand offsets.

Mr. GILMAN. Essentially, you don't like offsets; is that correct?

Mr. JOHNSON. We don't like having the U.S. Government help escalate the demands of offsets around the world by providing every demander the best practices of demanders for offsets, which is essentially what publishing this kind of information does. It provides every other finance ministry, economics ministry and defense ministry a look at what is the most people have extracted out of the United States, and that is our new bottom line where we start from. That is the problem. Just as we don't want to publish our proprietary manufacturing data for every competitor to look at, we don't have much interest in publishing our offset data for every consumer to look at.

Mr. GILMAN. Well, Mr. Johnson, would the industry prefer to restrict offsets rather than keep escalating the offset problem?

Mr. JOHNSON. No. We just don't want the U.S. Government to help in that escalation process. This is one of those cases where industry will take care of itself, I think, for lack of any other alternative.

Mr. GILMAN. But the industry hasn't taken care of itself apparently, and with all of the projections of job losses, it would seem to me, the industry would be more interested in finding a solution rather than just keeping from publishing.

Mr. JOHNSON. All I can say is, we are still the single largest net exporter in the United States of any industry. That is not the sign of an industry that has self-destructed. Any other industry in this country would envy our record.

Mr. GILMAN. Just one concluding statement from each of you. What should the U.S. Government do about offsets?

Mr. Johnson, what should we do? Apparently you are saying, nothing.

Mr. JOHNSON. Certainly, we can continue private discussions with our government. You are only talking about 40, 45 companies that are involved in the bulk of international trade in defense products, which is where most of the offsets are. We do some of that now. We could do more of that, sitting down with our government and talking about what our practices are. They could tell us a bit about what sectors they are particularly worried about. We have asked for 10 years for that kind of information from the U.S. Government and never received it.

Tell us where you think the problems are and we will try to avoid doing offsets in those sub sectors. No one has ever given us any of that kind of information. Start at the bottom up rather than the offset down. Certainly, you can jaw-bone our allies and try to put some kind of lid on offset demands. But as long as we, by and large, demand that everything we buy from offshore in the military arena be produced in the United States, it is going to be very hard to convince the Europeans that offsets are a bad thing.

Mr. GILMAN. Dr. Scott.

Mr. SCOTT. I believe that we need to create a national aerospace commission, or executive council within the National Economic Council, that is responsible for monitoring this problem and also for monitoring the broader competitiveness of the U.S. aerospace industry.

I think we have to recognize that there is a difference between a national interest in jobs and technology and the interests of many of the producers of these aircraft systems. I think we have to be aware of that when we develop policy. It may be in the interests of the aerospace industry to export jobs and to engage in outsourcing, in part because it increases their leverage with some of the labor unions or some of their suppliers. But this may not be in the national interest, so I think we have to be aware of that when we develop policy.

Mr. GILMAN. Mr. Herrnstadt, what is your recommendation?

Mr. HERRNSTADT. We can no longer relegate to private parties the issue of offset policy. This is a job for government. Government has the resources, government has the responsibility and the obligation to closely scrutinize this matter and come up, finally, with

a comprehensive national policy for an issue that affects so many workers now and will affect so many more workers in the future.

Mr. GILMAN. I thank our panelists.

Thank you, Mr. Chairman.

Mr. MICA. Thank you. I recognize Mr. Ose, the gentleman from California.

Mr. OSE. Thank you, Mr. Chairman.

I am curious about something with respect to the offsets. The information that is going to be compiled and reconciled and analyzed and digitized and all that sort of stuff, who is going to collect that?

Mr. SCOTT. I believe that information is currently being collected by Commerce and by the Department of Defense. I think that it needs to be channeled up to an organization like the National Economic Council in the White House. I believe that we need to have that information coordinated at a much higher level in the government so that it can be used for policy purposes.

Mr. HERRNSTADT. I agree. I think it is being collected currently in the Department of Commerce and elsewhere throughout government, but there needs to be more coordination through all of the Federal agencies, whether it is the Labor Department, Commerce, Defense Department, a clearinghouse, if you will, that can collect all of the information and sift it out and coordinate it.

Mr. OSE. Did I understand, Mr. Herrnstadt, from your comment that you think we need to expand it beyond the current arena to include all transactions, both of a government-private and a private-private nature?

Mr. HERRNSTADT. I believe Dr. Scott had mentioned that.

Mr. OSE. How big of an agency do you think we are going to create to compile and reconcile and analyze this data?

Mr. SCOTT. Well, it is relatively simple. We have essentially one aerospace prime in a commercial site and we could ask that one company simply to supply to the appropriate government office the reports and agreements that it is already making with foreign firms and foreign governments.

So basically this requires a copy machine in the appropriate departments at Boeing and a few of the other major suppliers.

Mr. OSE. What about the subtier companies, for instance? Do they not also have to—I think my point is that if you expand it beyond, say, Boeing to private-to-private transactions, I mean, you are going to open a huge area for data collection, if nothing else, which probably dwarfs even the—I can't even conceive of the agency, the Labor Department, perhaps.

Mr. Johnson, I would appreciate any comments you have on this. You referenced 45 companies being involved in these kinds of transactions where there is government involvement of one nature or another in the defense business, but what if we go outside, say, defense and do lumber or automobiles or oil or computers?

Mr. JOHNSON. You would have a matrix that would make MIT blanch. I mean, suppose you get credit for moving *X* number of wicker chairs from Thailand to Pier One. Then, are we going to examine the entire worldwide wicker chair industry to find out what impact you had on the wicker chair people? That is the problem.

When you get into direct offsets in general, what you find, even when Commerce looked at three areas that they thought might be

heavily impacted offset transactions, is that offset activity amounted to less than 1 percent of the total activity of any of those three subsector industries in the United States.

Even with the narrow confines of the defense industry, suppose you get credit for buying *X* number of fasteners from Germany for aircraft. There are hundreds of distributors in the United States. They, in turn, draw from fastener manufacturers around the world, including the United States. How do you figure out what impact that had on all of the fastener activity in the world? You would have a matrix that MIT can't handle with supercomputers.

Mr. OSE. The question that comes into my mind, when I was building houses and I had partners in the deal, some of those partners also provided subcontracting services, and while I was sensitive to their needs, I didn't let them jab me for an extra 3 percent just because they were my partners. If it was a lumber guy and his bid was the equivalent, well, then, I gave him the benefit of the doubt. But if he was 3 or 5 or 2 or 1 or anything over what the market was, I mean, it was a "tough" kind of thing.

Now, the question I have is, I am the guy writing the check on these things. If I am buying it, don't I have the right to buy it from the person that I want to buy it from? I mean, if I am France buying *X, Y* or *Z*, don't I have the right to say, well, a component of *X* is going to be this?

Mr. SCOTT. I think there are two answers to that. One, part of what they are buying was, in part, paid for by the U.S. Government, and that is the party who doesn't sit at the table in many of these transactions. We are talking about technology developed with government funding.

And I think, No. 2, often parties from different countries play by different rules. I think we have the European governments intervening informally behind the scenes in the purchases made by private companies.

For example, we saw a huge share in Airbus shipments to European producers, and the United States share there plummeted, I think, much more rapidly than those exchanges happened in the United States. I think that does reflect a national interest as well as the search for the best deal. So, I think that we have to recognize that when we get into international trade, the rules are different, and we need different policies to respond.

Mr. OSE. Mr. Chairman, I see the red light is on and I am crushed. I yield back.

Mr. MICA. Thank you.

Mr. Tierney, did you have any additional questions?

Mr. TIERNEY. I do, and I thank you for that.

First of all, Mr. Johnson, I need to go at this one more time with you, because I am still puzzled.

You are fearful, I guess, or the industry is fearful that if we provide Commerce with the information that might be necessary to sort of monitor or police what is going on, that offsets will escalate. How can that possibly happen? I mean, already exports, you have indicated, in this area has an offset agreement attached to it. I have been to conferences where the room is packed with people whose sole responsibility for the corporation is to devise seemingly new ways to surreptitiously, and I think unseemingly to go around

and find ways to do offsets, the most creative things that many people have ever seen. So what are you afraid of?

Mr. JOHNSON. Let me say one more time, we do not object to sharing some information with Commerce. Our concern is, when you publish it, you create a best practices for every other offset demander in the world.

Mr. TIERNEY. They are already——

Mr. JOHNSON. The other issue, I would say, as discussed with the gentleman from California, is that if you provided Commerce with wheelbarrows full of offset data, it doesn't give them a context to look at it in.

Mr. TIERNEY. You want to say that the only people that can give the context is the industry?

Mr. JOHNSON. No. I am just saying you have to come at it from the other direction. I sympathize. If you look at the trend across the board in industry, for example, one trend in automotive and aerospace, et cetera, is to slash the number of subcontractors as an efficiency means. How do you differentiate that overwhelming trend from some guys who think they were affected by offsets unless you know what the general trend is?

All I am saying is that you are taking information which is a teeny part of our industry without having a context in which to put it. I don't see how Commerce can do that if—that is why I think it is much more sensible to start at the bottom up.

Mr. TIERNEY. We are acting like we haven't already had a great deal of agreement on this, that offsets are not good. The agreement on government procurement already makes, I think, a pretty clear statement that offsets are not something that we think are great, it is market distorting, it is not favored. In fact, article 16.1: Entities shall not—shall not consider, seek or consider offsets.

Basically, the problem with that is, we then go ahead and exclude it on defense. Basically we say, well, you can do it in defense if you say it is for your national security. But you and I both know, Mr. Johnson, this has nothing to do with national security; it is to explain it to the people somewhere in the European Union that they spent dollars on American goods and the dollars didn't go to them.

We are fussing around with this a little bit and if we can prohibit offsets for virtually every other industry and just leave this loophole for defense, it seems to me that you could take another step. And if we have the information, we find out what we need to know about the statistics, and we go ahead and do it.

We have 45 companies; presumably they have some patriotism in their blood. Why don't they get together and come up with some standards in a joint effort about what they are going to do with this issue, which they say is a prisoners' dilemma—it seems to me like a lot of unwillingness on their part—and then maybe work on the national government to set a policy and start applying it to some of these multilateral and bilateral agreements in coming down on that to prohibit it, as we have for virtually every other industry, and I don't see them falling by the wayside or going out of business.

Mr. Herrnstadt, what do you say to that?

Mr. HERRNSTADT. I think you make a lot of sense.

Mr. TIERNEY. That is why I asked you.

Mr. HERRNSTADT. I will even turn on my microphone.

Mr. TIERNEY. I was going to ask Mr. Scott to turn his off.

Mr. HERRNSTADT. No, I think what you stated makes an awful lot of sense. Other countries have, as I mentioned before, well-developed offset policies. It is time we develop our own. It is also time that we stop considering this as a mere inconvenience or as a nuisance and look at it as the real threat it is. We need to be able to start with the data issues that you have talked about and formulate the comprehensive policy I have referred to before.

Mr. TIERNEY. Mr. Chairman, I will stop with that. It just seems to me when something is an inconvenience, seldom do you see people hire entire staffs and fill ballrooms full of people that deal with this inconvenience in more creative ways rather than just find out how to work the system, as opposed to doing something constructive about it.

Thank you.

Mr. MICA. I thank the gentleman. I want to thank this panel for their contribution and also for their willingness to participate with us and answer questions in helping us seek some solutions to the problem of offsets.

There are no further questions of the panel at this time, so you will be excused, and thank you again for your participation.

Our third panel I would like to welcome, consists of the Honorable Roger Majak, Assistant Secretary for Export Administration in the Department of Commerce; and the Honorable Alfred Volkman, Acting Deputy Under Secretary of Defense for Commercial and International Programs with the Department of Defense.

Gentlemen, as I mentioned to our first panel, I don't think you have been here before either. This is an Investigations and Oversight Subcommittee of Congress. If you would stand and be sworn, please.

[Witnesses sworn.]

Mr. MICA. Let the record reflect that the panelists answered in the affirmative.

Welcome, gentlemen, representatives of the administration, to help us address the questions and problems surrounding defense offsets. As I mentioned to our previous panelists, we try to limit the oral presentations to about 5 minutes; as the red light goes on, you get about a minute to conclude. We do welcome any lengthy documentation or statements within reason, they will be made a part of the record by unanimous consent.

So, with that, you are recognized, first the Honorable Roger Majak, Assistant Secretary for Export Administration with the Department of Commerce.

Welcome, sir. You are recognized.

STATEMENTS OF ROGER MAJAK, ASSISTANT SECRETARY FOR EXPORT ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE; AND ALFRED VOLKMAN, DEPUTY UNDER SECRETARY OF DEFENSE FOR COMMERCIAL AND INTERNATIONAL PROGRAMS, U.S. DEPARTMENT OF DEFENSE

Mr. MAJAK. Thank you, Mr. Chairman. I appreciate the opportunity to inform the subcommittee regarding the Commerce De-

partment's involvement in the issues surrounding offsets in defense trade.

As you know, the Defense Production Act directs the administration to prepare annual reports to Congress on defense tradeoffsets and also codifies the current policy, which was initiated by President Bush, of nonintervention in offset transactions by the Federal Government. Within Commerce, the responsibility for monitoring offsets has been delegated to the Bureau of Export Administration, with which I am associated.

We are presently working on our fourth report to the Congress, which will be submitted later this summer. We coordinate the collection of this data and the issuance of these reports with the Departments of Defense, Labor, State and Treasury, and the Office of the U.S. Trade Representative.

To help you better understand the scope of the offset issue, let me review just a few of the findings from our 1998 report to Congress.

New offset agreements from 1993 to 1996 total about $15 billion. That is about 52 percent of the value of the defense exports involved, which were about $29 billion. So in order to secure $29 billion in exports, we had to give back, in a sense, $15 billion in offsets.

Preliminary figures for 1997—you should keep in mind that our data are a couple of years behind in this area—our figures, preliminarily, for 1997 indicate that the average offset as a percentage of export value will be approaching 80 percent, and discussions with U.S. prime contractors indicate that number is continuing to go up, gradually approaching 100 percent. So we could be looking in the future at a situation where we are asked for $1 in offsets for every $1 in defense exports.

We also measure actual transactions under these offset agreements. Transactions reached $9.2 billion between 1993 and 1996; 38 percent were direct offsets, 58 percent were indirect offsets, and the rest were unspecified. About three-quarters of those transactions appeared to displace U.S. subcontracting work, and certainly it has been a consistent finding of our studies that the subcontractor base is most seriously and directly affected by offset requirements.

Three-fourths of all of the offset transactions we have tracked involve three industry sectors: Transportation, which includes aircraft and aircraft parts, that is about 48 percent of these transactions; electronic and electrical equipment, which is about 16 percent; and industrial machinery account for about 9 percent.

Between 1993 and 1996, over 90 percent of new offset agreements and transactions were triggered by U.S. aerospace deals, although nearly half of those offset requirements were actually fulfilled with nonaerospace products. Ship-building is an industry which appears to have been particularly hard hit by offsets. The machine tool industry has also been heavily affected, according to our figures, in the period 1993 to 1996. In total, more than 40 major U.S. industries, from food and food products to apparel, printing, stone-cutting even, have been hit by offsets, despite the fact that those industries have little or nothing to do with defense trade.

While virtually all governments engage in offsets to one extent or another, five countries account for about 72 percent of new offset requirements, by value—the United Kingdom, the Netherlands, Switzerland, Saudi Arabia, and Taiwan. In the period that I have mentioned, 1993 to 1996, European countries demanded 94 new offset agreements worth about $10 billion in return for $11.3 billion in defense purchases. That is about a 90 percent offset rate.

The United Kingdom, I would note, has one of the most aggressive offset programs. Not only does Britain demand nearly 100 percent offsets against their United States military purchases, but the British Government also has established a program to assist their companies meet offset requirements demanded by other countries.

Canada's offset program is also quite aggressive, and is designed to enhance its general economic development, rather than its national security or defense industries in particular. Again, Canada tends to require 100 percent offsets, most of them indirect. It does so despite the fact that we offer special access to Canadian firms in our markets.

Is there a better way of sharing the benefits of defense trade than resorting to these offsets? Probably. The development and production of extensive weapons systems through international partnerships would be a better approach, in our view, for example.

Our allies have been reluctant to discuss and negotiate limits on offsets for a variety of reasons. I think some of them regard offsets as an economic win; others are responding to political factors; overcapacity and excess employment in the European defense industries have increased pressure for offsets in order to keep European defense facilities operating.

So where do we go from here, Mr. Chairman and members of the subcommittee? Official U.S. Government policy, as has been noted, is to avoid government involvement in offsets and to actively consult with friends and allies to limit the adverse affects of offsets in defense procurement. We have had discussions over the last few years with officials of the Dutch Government and the Canadian Government. It is particularly important, I think, to make progress with the Canadians, because they are a part of our North American industrial base, and they are our closest neighbor, of course, and largest trading partner.

Our objective remains to reduce and restrict offsets where possible. It will be difficult to stifle the demand for offsets, at least in the short term. It is a buyer's market for defense systems. We are unlikely to restrain or eliminate offsets by just complaining about them. We certainly will not eliminate them by unilaterally restricting our own defense contractors.

If we are serious about further constraining offsets, I think we need to consider ways to increase our leverage, including the following.

We need to continue our efforts at international negotiations on offset rules, both on transatlantic trade with our European allies and on Third Country markets where we compete with European manufacturers. As I have mentioned, recent discussions have indicated some receptivity to our ideas in this area. We need to collect accurate information on all foreign sourcing of parts and components and weapons systems down to the subcontractor level.

Finally, Mr. Chairman, we may need to take a closer look at the British program. I mentioned, in passing, that the British Government actually assists its companies in responding to offset requirements in order to make them more competitive and to bring the demanders of offsets to the negotiating table. That's fighting fire with fire, which we may need to consider under these circumstances.

That summarizes my statement, and I thank you for your patience on the time.

[The prepared statement of Mr. Majak follows:]

TESTIMONY OF R. ROGER MAJAK
ASSISTANT SECRETARY FOR EXPORT ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON GOVERNMENT REFORM
SUBCOMMITTEE ON CRIMINAL JUSTICE, DRUG POLICY, AND HUMAN RESOURCES

JUNE 29, 1999 10:00AM 2154 RAYBURN H.O.B.

Mr. Chairman and Members of the Subcommittee, thank you for inviting me to testify today on the topic of offsets in defense trade. We are pleased that you have decided to review this critical issue which impacts our economic and national security. This hearing is an opportunity to inform the subcommittee on this growing problem. We view it as an important next step to the staff report prepared for Representative Tierney on this issue last October.

The Bureau of Export Administration (BXA) has a long history of involvement in defense industrial base issues. Apart from our export licensing and regulation mission, BXA is involved in a number of programs designed to maintain and enhance the competitiveness of the U.S. defense manufacturing infrastructure. BXA regularly conducts assessments of various key sectors and provides the results to the Armed Services and industry groups; assists communities in base closure and reuse; and matches technology needs of small- and medium-sized businesses with the resources of the federal laboratories.

As you are aware, in the mid 1980s, Congress enacted §309 of the Defense Production Act of 1950, as amended. This legislation tasked the Administration to prepare annual reports to Congress on the effects of offsets in defense trade on U.S. industry. The Office of Management and Budget chaired an interagency team, to which BXA belonged. In 1992, Congress amended the Defense Production Act and shifted the responsibility to the Department of Commerce where it was delegated to BXA.

To date, we have prepared three annual reports and are working on a fourth, which will be submitted later this summer. These reports are based largely on data collected from U.S. prime contractors, supplemented with data gathered from other surveys and outside research. As with the reports prepared by OMB, BXA coordinates this process with the Departments of Defense, Labor, State, and Treasury, and the Office of the U.S. Trade Representative.

To begin, I'd like to provide the offset definition that we use in the preparation of our annual reports: Offsets are industrial compensation practices mandated by foreign governments when purchasing defense-related articles and services. They can include coproduction, licensed

production, subcontractor production, technology transfer, overseas investment, and countertrade.

Offsets can be either direct or indirect. Direct offsets, as the name implies, are forms of compensation directly related to the weapon system or other defense article being purchased. An example of a direct offset would be the production of a wing component for a fighter in the purchasing nation. Indirect offsets, in contrast, are those fulfilled in a wide variety of ways not related to the system that is purchased. Examples of indirect offsets include the sale of non-defense products manufactured in the buyer country or the development of non-defense industries, such as software.

What is the problem with offsets? Why has BXA and the rest of the interagency community focused so much attention on the issue? There is no doubt that offsets are a reality of the international defense marketplace. Practically every country that purchases modern weapon systems demands offsets, whether they call them offsets or, as our British allies prefer, "industrial participation," or, as our friends to the north refer to them, "industrial regional benefits," or, in Israel, "industrial cooperation." Regardless of the label attached to the practices, the fact is that a U.S. prime contractor cannot even hope to bid in most cases without offering an offset package along with its sales proposal.

The official U.S. Government policy, developed during the Bush Administration, views offsets as economically inefficient and market distorting. Offsets introduce a new element into the purchase decision unrelated to the price or quality of the products. The policy directs that the U.S. Government will not encourage or enter into any such agreements itself nor provide financing for such arrangements. The decision whether to engage in offsets, and the responsibility for negotiating and implementing offset arrangements, resides with the companies involved. U.S. policy also calls for consultations with our friends and allies regarding limiting the adverse effects of offsets in defense procurement. In light of some of our activities and consultations with our allies, which I will describe, I will later offer a statement of principles to be considered which will strengthen our position in negotiating for an end to offsets.

As the Committee will hear today, some argue that offsets facilitate U.S. exports and improve U.S. competitiveness; that they are a reality of the marketplace; and that they promote national security by enhancing weapon system interoperability. Others will counter that offsets are a misuse of the national security waiver for government defense procurement; they enhance the position of foreign competitors; and they have adverse employment, industrial, and technological impacts on the U.S. subcontractor base. All of these arguments have merit. The real question is, can we and should we do something to control offsets?

The prime contractors see offsets as a necessary evil, a reality of doing business in the international marketplace. They will continue to agree to offset arrangements as long as they are a mandatory condition of the sale, and they fear any unilateral moves on the part of the U.S. government to limit the use of offsets in international defense trade. Their position is understandable, as their actions are based on self interest.

Let me provide an example: The United States provides Israel with grant money to purchase U.S. defense systems. Right now, Boeing and Lockheed Martin are in a virtual dogfight over a $2.5

billion contract with the Israeli government for the purchase of fighter aircraft. The focus seems not to be on whether Boeing's F-15 or Lockheed Martin's F-16 is the better plane. Rather, the decision seems to hinge on who can promise the most offset work in Israel. The Israeli government was expected to announce its selection a month ago; instead, both contractors were asked to augment their bids. Now, the decision is on hold, waiting for the incoming government. American taxpayers provided the grant aid for this purchase, and the U.S. economy will bear the further cost of the offset arrangements, as the deal may result in technology transfer and displacement of U.S. subcontractor work.

Let me spend a few minutes going over some of the data from our 1998 report to Congress to give you an understanding of the scope and magnitude of offsets. New offset agreements with all foreign countries totaled $15.1 billion and supported $29.1 billion in export contracts from 1993 to 1996. This is about 52 percent of the value of the export contracts. For 1995-1996, the average offset jumped to about 80 percent. Preliminary figures for 1997 indicate that the average offset as a percent of export contract value is above those reported for 1993-1996. Based on our discussions with U.S. prime contractors, we expect that average to continue to climb toward 100 percent or more in the near future.

We also measure offset transactions, which are activities, like coproduction, technology transfer and countertrade, carried out by U.S. companies to fulfill agreements entered into in the same year or earlier. Transactions reached $9.2 billion between 1993 and 1996. About 38 percent of the transactions were direct offsets, 58 percent indirect, and 4 percent unspecified. About three-fourths of the actual value of all transactions were subcontracting activity, purchases, or technology transfer arrangements with our allies. This contradicts the notion that offsets do not have a widespread impact on our nation's industrial base; many offset-related transaction result in displacement of U.S. subcontractor work, lost revenue, and inevitably lost jobs for U.S. suppliers.

The adverse impact of offsets goes beyond the suppliers in the defense prime contractor's sector. Between 1993 and 1996, over 90 percent of the new offset agreements and offset transactions referenced exports of U.S. aerospace weapon systems, primarily aircraft, engines, and missiles. However, almost half of the offset transactions were fulfilled with non-aerospace products. This means that our aerospace prime contractors are fulfilling their offset responsiblities through activities in other sectors of the U.S. economy. We have heard complaints from groups like the American Shipbuilders Association, whose members have lost potential sales due to offset arrangements. In fact, our database shows almost $800 million in shipbuilding-related offset activities between 1993 and 1997. This industry has been impacted by offsets, despite not having offset agreements of their own or even defense export sales.

Another illustration of the widespread impact of offsets on our defense industrial base is that nearly 83 percent of the more than $9 billion in offset transactions were manufactured products. Three-fourths of the offset transactions fell into three major industry groupings:

1. SIC 37 Transportation Equipment (48 percent); a sub-group, SIC 372 - Aircraft and Parts, alone accounted for 33 percent
2. SIC 36 Electronic and Electrical Equipment (16 percent); and
3. SIC 35 Industrial Machinery (9 percent).

Overall, 40 major U.S. industrial groupings – most not involved in the manufacture of weapon systems – were impacted by offsets. Most of the groups are far from defense-related production; they include food & food products; apparel; printing & publishing; and cut stone & stone products.

In our 1997 report to Congress, we reviewed the impact of offsets on two key subsectors of the U.S. economy: machine tools and shipbuilding & repair. For 1993-1995, there were $113 million offsets for machine tools and $350 million for shipbuilding parts and services. What does this really mean? The small businesses who supply machine tools and shipbuilding parts and services lost a small but significant share of their business to offset fulfillment. The quality and price of their products were not the cause of this loss of business; rather, the loss resulted from offset agreements which they did not enter into in the first place.

In the post-World War II period, offsets were justified on national security grounds – coproduction was needed to rebuild war-damaged defense industrial bases in Europe and Japan to enable them to resist the spread of communism. Today, with more than half of the offset activities identified as indirect or unrelated to the weapon system being purchased, these countries are taking advantage of offsets to pay for economic development initiatives, rather than in support of national security.

Canada's offset program is probably one of the best examples of the shift from a national security to an economic development focus. Its mandatory program of 100 percent offsets is primarily indirect. When selling to Canada, U.S. primes are required to set up non-related industries in targeted provinces. Canada learned many years ago that it was not cost-effective to duplicate defense manufacturing facilities, so instead they rely on U.S. industry to develop and expand Canadian non-defense industry into the U.S. and other markets. This, despite the fact that the United States has had a significant merchandise trade deficit with Canada for the last several years. What's more, Canada has a special relationship with the United States and is considered part of the North American defense industrial base. Canadian defense firms have special access to the U.S. marketplace – and Canadian firms are not required to fulfill offset agreements to do business here. In contrast, we have had a number of complaints from firms who were barred from the Canadian defense market unless they agreed to the required offsets despite a significant percentage of Canadian content already in the weapon system.

Returning to our report data: Five countries – the United Kingdom, the Netherlands, Switzerland, Saudi Arabia, and Taiwan – accounted for 72 percent of the value of new offset agreements between 1993 and 1996. Individual countries' offsets demand vary, of course. Let me focus on Europe, which accounts for the bulk of our defense trade and, not surprisingly, the majority of our offsets.

In four years, European countries entered into 94 new offset agreements valued at more than $10 billion in connection with about $11.3 billion in defense purchases. This makes the offset percentage about 90 percent.
The United Kingdom has one of the most demanding offset programs, with strict monitoring and audit procedures in place. The UK purchased about $5 billion in U.S. military equipment between 1993 and 1996 and received offsets of very nearly the same amount, mostly direct

offsets. This means that instead of the United States exporting systems, parts, and components, the systems are instead being manufactured with minimal U.S. content. The Dutch purchased $1.4 billion over the period and received $1.8 billion in offsets, or approximately 126 percent, which were mostly indirect offsets. These indirect offset obligations were fulfilled with purchases of machinery, commercial aerospace parts, automotive, software, shipbuilding and repair, and primary metals.

The British have an interesting system. The U.K. Defense Export Services Organization (DESO) and the Department of Trade and Industry have joined forces to launch a new offset service, matching companies who are interested in overseas investment with companies who sell to foreign governments that require offsets. Clearly, in defense markets which require primarily indirect offsets, the British have a real competitive advantage through this strong government support of British aerospace firms.

Part of the difficulty we face in convincing foreign nations to negotiate with us is that offsets appear to be a winning proposition for purchasing nations, politically and economically. In many ways, at least in economic terms, this thinking is flawed. Offsets have the effect of increasing the cost of the exported weapon system, and this cost ultimately must be passed on to the foreign purchaser. These increased costs are incurred when shifting components production to newly established overseas suppliers, through fees for transferring technology, or through various other administrative expenses. Co-production is the most costly form of offset, as it typically involves the replication of an entire production or assembly facility to produce a limited number of military items.

In reality, it is less expensive for most nations to import weapon systems than it would be to develop and produce them domestically. Few nations can afford the cost of or have the capability to maintain a fully integrated military industrial base. For that reason, collective security arrangements develop, and trade in advanced weapon systems among allies is enhanced. Offsets are not needed to achieve this security; they simply make the import more attractive politically to the purchasing nation and may in fact lessen the security gains. Our data shows that it in many cases it is not the defense ministry that implements and monitors offset agreements; rather, it is my counterparts at the economic and trade ministries who make these decisions. This is another sign that offsets are moving away from national security justifications.

As a measure to reduce the inefficiencies inherent in offsets, the development of expensive weapon systems would better be accomplished through international partnering with allies. This would spread costs and benefits and reduce duplication. It would also provide added incentives to market the weapon systems more widely. The Joint Strike Fighter program, with British, Dutch, and Canadian participation, is one of only a few examples of this type of cooperation. All partner countries are sharing the risk of development, and all will share in eventual production activities. Because of this cooperation, there's no need for offsets.

Another factor that makes our European trading partners reluctant to discuss limits on offsets is the overcapacity and excess employment in the European defense industry. This creates political pressures to continue the practice of demanding offsets in order to maintain a workload at defense facilities. The continued use of offsets is inhibiting European cooperation and integration. U.S. prime defense contractors have become more competitive because of

consolidation and downsizing in the U.S. industrial base. As stronger competitors, U.S. firms have increased their share of an ever-decreasing international defense market. In addition, the United States spends three times more on military R&D than European nations, contributing to the U.S. lead in sophisticated weapon systems, which was so critical in our recent involvement in Kosovo.

Another argument presented in favor of offsets is that the U.S. has a positive, but declining, defense trade balance with Europe. However, as with Canada, the U.S. has a negative balance in merchandise trade with Europe, which includes both commercial and military trade. The defense surplus has ranged from $2-3 billion since 1993, while the merchandise deficit was $15.2 billion in 1996 and grew to $16.7 billion in 1997. When offsets are included in the calculation, the U.S. defense trade surplus is effectively cut in half.

Additionally, the U.S. General Accounting Office reported in November that the Department of Defense has undercounted the value of foreign content in U.S. weapon systems. This would also erode the defense trade surplus total. As these figures show, it is important to look at the entire trade picture rather than focusing on one sector.

Where do we go from here? For the last three years, BXA's annual report has had as one of its goals international consultations on offsets, both bilateral and multilateral. We have worked hard over the last two years to develop a domestic consensus for such an effort through discussions with the interagency community, prime contractors, subcontractors, labor, and trade associations. While there are differences of opinion among these groups, one thing that we have all agreed on is the need for a dialogue with our allies on this complex subject. BXA also co-funded a series of conferences on offsets and the aerospace industry through the National Research Council. Again, our objective was to focus attention and spur thinking on solutions to the issue.

In the last year, we have made progress in the area of international consultations, as well. First, we believe that it is important to address the issue with our European allies, since they are our largest defense trade partners and demand the highest offsets. We are pursuing this both multilaterally and bilaterally.

Secondly, a DOD-led interagency group met with Canadian representatives to see what headway we can make in reducing offsets. More detailed discussions are being planned. As our closest neighbor and largest trading partner, and because of that nation's role in the North American defense industrial base, it was important to make progress with Canada.

Third, we will be meeting with representatives of the Dutch government in September, following up on an earlier meeting, again with the objective of eliminating or reducing offsets in exchange for improved access to the U.S. market. We've also had very preliminary discussions with the Swedes, the Danes, and the French, who are interested in discussing alternatives to offsets as well.

On a different front, offsets are mentioned as a concern in the USTR Title VII report on unfair government procurement practices (see attached). Through this report, we have put governments around the world on notice that we are looking for a new way to conduct defense trade – without offsets.

Similarly, my organization has participated in offset conferences around the world, speaking to audiences of foreign offset officers and prime contractors. Our message has been surprisingly well-received: I think that most parties would readily back away from the offset system if an acceptable alternative was available.

While we have made great strides in opening communications on offsets, there will be no quick solution. It is a buyer's market for defense systems, and weapon sellers in France, Britain, and the United States are confronted with ever-increasing offset demands.

It will be difficult to stifle the demand for offsets, at least in the short term. However, it may be easier to come to an agreement among the sellers to limit or eliminate offsets. While our goal is to eliminate offsets, we may wish to consider some principles which could increase our leverage.

Based on our extensive discussions with foreign governments, and U.S. and foreign industry representatives, I believe we should consider the following possible approaches as we move forward in our consultations with our allies:

1. We should continue our efforts toward international negotiations on offsets rules. Our bilateral discussion in the past year suggest there is growing receptivity to this idea. We should focus both on trans-Atlantic trade with our European allies and on third country markets where we compete with EU manufacturers.

2. More accurate information on all foreign sourcing of parts and components in U.S. weapon systems down to the subcontractor level would provide better data upon which to base our bilateral and multilateral defense trade discussions and negotiations.

Additionally, we want to take a closer look at the British program I described earlier, which may place U.S. companies at a disadvantage in the global marketplace. The key features of this new program would be:

1. The government assumes no liability or obligation for the offsets.
2. It brings senior level officials' support in facilitating offsets.
3. British companies gain a competitive advantage in the international defense market place.
4. Government assistance has been designed to meet unavoidable offset demands with minimum damage to suppliers and their employees

Such measures were designed to match and neutralize competition in the marketing of offsets. The increased efficiency of companies in dealing with offsets would greatly reduce business prospects of competing foreign firms.

We are unlikely to restrain or eliminate offsets by just complaining about them, or by unilaterally restricting ourselves and our defense contractors. While that might set a good example, it would be tantamount to unilateral disarmament, leaving our competitors free to exploit offsets even further. As we learned in the 1970s and 1980s when our competitors were using predatory export financing to capture markets, it's sometimes necessary to fight fire with fire. For many

years Congress authorized a "War Chest" at the U.S. Import-Export bank to be used to counter and match below-market export financing when our competitors insisted upon using it. The result of our willingness to match and even trump our competitors with financing terms eventually brought our competitors to the negotiating table and resulted in international agreements to limit such financing. If we are serious about constraining offsets, we need at least to consider a similar strategy. The concepts and options I've outlined could move us in that direction.

Thank you, Mr. Chairman. I would be pleased to answer any questions.

ATTACHMENT

Excerpt from
ANNUAL REPORT ON DISCRIMINATION IN FOREIGN GOVERNMENT PROCUREMENT
Office of the United States Trade Representative
April 30, 1999

Offsets in Defense Trade

When purchasing defense systems from U.S. defense prime contractors, many U.S. trading partners require compensation in the form of offsets as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services. Offsets include mandatory coproduction, licensed production, subcontractor production, technology transfer, countertrade, and foreign investment. Offsets may be directly related to the weapon system being exported, or they may take the form of compensation unrelated to the exported item, such as foreign investment or countertrade.

Prime contractors view offset arrangements as a necessity for success in the international marketplace. However, offset requirements cause prime contractors to select subcontractors based on their being located in the country requiring the offset versus best value, thereby adversely affecting potential U.S. subcontractors. Originally designed to enhance allied national security, offsets increasingly have become economic development tools for the countries that demand them. Furthermore, there has been a recent trend to fulfill offset requirements with non-defense products versus defense products.

Mr. MICA. Thank you for your testimony. We will withhold questions until we have heard from the Honorable Alfred Volkman, who is the Acting Deputy Under Secretary of Defense for Commercial and International Programs with the Department of Defense.

Welcome, sir. You are recognized.

Mr. VOLKMAN. Good morning, Mr. Chairman, members of the subcommittee. I appreciate this opportunity to participate in these discussions on the subject of offsets in international trade.

As almost all of our panelists have noted this morning, there is no consensus on the subject of offsets. Government agencies have a range of views on the topic, and industry opinion on the matter is also divided. There is no definitive evidence of the effect of offsets on the U.S. economy. Views on their effect are generally divided between those who accept offsets as an unavoidable cost of doing business overseas and those who believe that offsets negatively affect the defense industrial base and other U.S. interests.

It is difficult to accurately measure the impact of offsets on the overall U.S. economy and on specific industry sectors that are critical to defense. The GAO reports that U.S. defense companies advised them that without offsets, most export sales would not be made and the positive effects on the U.S. economy and defense industrial base would be lost. In addition, company officials indicated that export sales provided employment for the defense industry and orders for larger production runs, thus reducing unit costs to the U.S. military. They also noted that many offset deals created new profitable business opportunities for themselves and other U.S. companies.

Critics, however, charge that offsets have effects that limit or negate the economic and defense industrial base benefits that claim to be associated with defense export sales.

In response to concerns raised by the impact of offsets, the President issued a policy statement in 1990 that reaffirmed DOD's longstanding policy of not encouraging or participating directly in offset arrangements. This policy statement also recognizes that certain offsets are economically inefficient, and directed that an interagency team led my DOD, in coordination with the Department of State, consult with foreign nations on limiting adverse effects of offsets in defense procurement.

The Department of Defense fully supports the policies articulated by the Congress and the administration concerning the need to negotiate with friendly and allied governments to eliminate the harmful effects of offsets in defense trade. My office has been actively engaged in discussing offsets with key allies during our regular meetings on reciprocal defense procurement activities. In addition, we have cosponsored seminars, organized by independent organizations such as the National Research Council, to better understand and deal with the complex and growing world of offset demands in international trade.

More recently, we initiated action to lead an interagency team, including representatives from the Department of State, Department of Commerce, Department of Labor, and the Office of the U.S. Trade Representative that has met bilaterally with officials from Canada and the Netherlands on the subject of the harmful effects of offset demands in defense trade.

Our allies consistently tell us that they need offsets because they perceive that the U.S. defense market is not open to them due, at least in part, to protectionist legislation. In particular, they cite congressional reluctance to change Buy America and small business preference legislation. We believe that offsets should be considered as one, among many, practices that distort defense trade, and consequently, negotiating the offset issue by itself does not give the United States a strong bargaining position.

Furthermore, officials from the defense industry have expressed concern about any unilateral action by the U.S. Government that would limit the use of offsets, stating that such action, as Mr. Johnson said earlier, would place U.S. exporters at a competitive disadvantage in winning overseas defense contracts.

The Department of Defense is prepared to continue to work with other Federal agencies, our allies, and the defense industry to monitor the employment and effect of offsets in international trade, to ensure that U.S. Government policies of action or inaction do not compromise broader U.S. national interests. The DOD will continue to support U.S. industry interests when they are forced to comply with foreign government-mandated offsets, while working to discourage our foreign friends and allies from requiring offsets. However, the Department would be very concerned over any U.S. Government actions that would diminish the competitiveness of the U.S. defense industry or harm the Department's efforts to achieve military interoperability with our allies.

Mr. Chairman, thank you very much for this opportunity. I am prepared to answer any questions you may have. Thank you.

[The prepared statement of Mr. Volkman follows:]

STATEMENT BY

MR. ALFRED VOLKMAN

ACTING DEPUTY UNDER SECRETARY OF DEFENSE
(INTERNATIONAL PROGRAMS)

TO THE

SUBCOMMITTEE on CRIMINAL JUSTICE, DRUG POLICY, and HUMAN RESOURCES

OF THE

HOUSE COMMITTEE on GOVERNMENT REFORM

JUNE 29, 1999

Good afternoon Mr. Chairman, and members of the Subcommittee. I want to thank you for this opportunity to participate in discussions on the subject of offsets in international trade. The Department of Defense is keenly aware of the many issues associated with offsets in defense trade. We are also aware of the many ambiguities associated with offsets and offset issues. I look forward to contributing the DoD perspective to this discussion

As the members of this Subcommittee know very well, there is no national consensus on the subject of offsets. Government agencies have a range of views on the topic and industry opinion on the matter is divided. There is no definitive evidence of the effects of offsets on the US economy. Views on their effects are generally divided between those who accept offsets as an unavoidable cost of doing business overseas and those who believe that offsets negatively affect the defense industrial base and other US interests. It is difficult to accurately measure the impact of offsets on the overall US economy and on specific industry sectors that are critical to defense.

With the end of the Cold War, military establishments around the world have been decreasing their force structures and spending by significant amounts. The decline in defense spending has served to highlight the linkages between the economics of international trade in armaments and political-military security issues. Naturally, this has lead to a debate on the US policy toward offsets.

The GAO has reported that US defense companies advised them that without offsets most export sales would not be made, and the positive effects on the US economy and defense industrial base derived from our dominant position in defense sales abroad would be lost. In addition, company officials indicated that export sales provide employment for the defense industry and orders for larger production runs, thus reducing unit costs to the US military. They also

noted that many offset deals created new and profitable business opportunities for themselves and other US companies.

Critics charge that offsets have effects that limit or negate the economic and defense industrial base benefits claimed to be associated with defense export sales. Mandated offshore production may directly displace US defense firms that previously performed this work, and offsets that transfer technology and provide marketing assistance give foreign defense firms the capabilities to subsequently produce and market their products, often in direct competition with US defense companies.

However, defense exports involving offsets are small relative to the economy as a whole, making it difficult to measure any effects using national aggregated data. Similarly, the impact of offsets on specific sectors of the US economy cannot be accurately measured. It would be difficult to isolate the effects of offsets from numerous other factors affecting specific industry sectors.

In response to concerns raised about the impact of offsets, the President issued a policy statement in 1990 that reaffirmed DoD's standing policy of not encouraging or participating directly in offset arrangements. This policy statement also recognized that certain offsets are economically inefficient and directed that an interagency team, led by DoD in coordination with the Department of State, consult with foreign nations on limiting adverse effects of offsets in defense procurement.

The Department of Defense fully supports the policies articulated by the Congress and the Administration concerning the need to negotiate with friendly and allied governments to eliminate the harmful effects of offsets in defense trade. My office has been actively engaged in discussing offsets with key allies during our regular meetings on reciprocal defense procurement activities. We have attempted to address the issue of offsets by implementing reciprocal

memorandums of understanding (MOUs) between the US and several major allies which include provisions to consult on the adverse affects of offsets. Reciprocal defense MOUs seek to facilitate armaments cooperation by allowing US and foreign companies reciprocal access to the governments' defense markets, and calling for reductions in certain barriers, such as buy-national laws and tariffs.

In addition, we have co-sponsored seminars organized by independent organizations such as the National Research Council to better understand and deal with the complex and growing world of offset demands in international trade. More recently, we initiated action to lead an interagency team, including representatives from the Department of State, Department of Commerce, Department of Labor, and the Office of the United States Trade Representative that met bilaterally with officials from Canada and the Netherlands on the subject of the harmful effects of offset demands in defense trade.

Our Allies constantly tell us that they need offsets because they perceive that the US defense market is not open to them due to protectionist legislation. In particular, they cite Congressional reluctance to change Buy America and small business preference legislation. Offsets should be considered among a range of practices that distort defense trade, and consequently we feel that negotiating the offset issue by itself does not give the US a strong bargaining position. Furthermore, officials from defense industry have expressed concern about any unilateral action by the US government that would limit the use of offsets, stating that such action would place US exporters at a competitive disadvantage in winning overseas defense contracts.

As a consequence of the worldwide decline in defense spending, the entire US defense industry, and in particular the aerospace sector, has undergone a process of consolidation, restructuring, and downsizing over the past decade. The only way in which many nations will be able to maintain a

viable defense industry is by exporting a much larger portion of their output to overseas customers. Retention (or creation) of economically viable, indigenous defense systems capabilities is viewed as fundamental to national security in many nations, leading to aggressive economic competition for defense export opportunities. In the US, growth in overseas demand has outpaced domestic demand. Although US markets have dominated, the main growth is now occurring overseas. International collaboration and subcontracting has increased the globalization of the industry. US industry accounts for about one half of worldwide arms transfer deliveries. So, although important, the impact of offsets has been dwarfed by these larger factors.

Defense companies undertake a broad array of activities to satisfy offset requirements. Negotiating offset credit is an important part of implementing offset agreements. Countries can grant additional offset credit to encourage companies to undertake highly desirable offset activities. Under offset programs, US contractors commonly award subcontracts for components and subsystems to firms in purchasing countries, and in a few cases, have made longer term commitments covering foreign firm participation in the event of future sales of weapon systems.

Some countries, such as the United Kingdom and the Netherlands, cite restrictions in the US and other defense markets and note that their offset policies are needed to ensure that their defense industries are given an opportunity to compete. The Defense Production Act restricts purchases of critical items from foreign sources. Regulations implementing the Buy America Act, while not precluding foreign suppliers, allow price preferences for domestic manufacturers. And annual DoD appropriations acts sometimes contain prohibitions on foreign purchases of specific products.

The use of offsets began in the late 1950s and early 1960s. In 1984, the GAO reported that offsets were a common practice and that demands for offsets

Countries with developing defense and commercial industries tend to pursue both defense and non-defense related offsets. Offsets in these countries typically involve technology transfer in defense or comparable high technology industries, as a means to further develop their defense base and economy. South Korea, Singapore, and Taiwan are illustrative of this group. The same GAO review revealed that US companies generally considered the offset requirements of Singapore and Taiwan to be manageable. However, company officials noted that despite the relatively low percentage of offset required in South Korea, these requirements can be quite difficult.

Countries with less industrialized economies generally pursue indirect offsets to help create profitable businesses and build their country's infrastructure. Kuwait, Saudi Arabia, and the United Arab Emirates are illustrative of this group. These countries usually do not pursue direct offsets because they have limited defense and other advanced technology industries and are not interested in attracting work that would require importing foreign labor.

US policy supports defense exports through three principal avenues:

- Granting of export and munitions licenses. Weapon systems and major system components are all subject to export control. Licenses are only granted when it is in the security interest of the US. In this regard, the 1995 Administration conventional arms transfer policy explicitly recognizes the role of arms exports in strengthening the US industrial base. License applications are handled on a case by case basis, taking into account regional concerns and technical capabilities of the equipment involved.

- Diplomatic and administrative support. As the US foreign diplomatic infrastructure became aware that encouraging US exports was a priority for current government policy, a greater involvement in even handed

support to US contractors in winning competitions for military exports developed over the past few years.

- Financial support to exports. US defense contractors have pursued financial supports for defense exports, arguing that they are necessary to ensure a level playing field. The two principal changes that have attracted attention in recent years are waivers of R&D recoupment charges on export sales and creation of a defense export loan guarantee facility similar to Ex-Im Bank programs for non-defense exports.

Most companies would prefer to compete on the basis of quality and price of their primary product, however offsets have become a recognized cost of doing business with most government customers. Offsets are simply another form of barter and countertrade, and although inefficient, they close the trading loop in a bilateral and visible fashion, but they do not change the principles of trade.

Since the US has the world's largest economy, the US can absorb offset requirements more readily than can our competitors, with little or no impact on the overall US economy. There have been numerous studies of offsets by the federal government over the past two decades. They have produced no clear evidence that offsets have a significant impact on specific sectors or subsectors of the US economy, including sectors important for defense production. Congressional hearings on the subject have also presented inconclusive testimony on the negative economic effects of offsets.

The Department of Defense is prepared to continue to work with other federal agencies, our allies, and the defense industry to monitor the employment and effects of offsets in international armaments trade to ensure that US government policies of action or inaction do not compromise broader US national interests. The DoD will continue to support US industry interests when they are forced to

comply with foreign government-mandated offsets, while working to discourage our foreign friends and allies from requiring offsets.

Mr. Chairman, thank you for this opportunity to share with you our observations on offsets in international defense trade. I stand ready to answer any questions that you and the members may have.

Mr. MICA. Thank you. We do have a couple of questions.

It appears from the testimony that we had from Secretary Majak that you have a pretty good handle on what is happening, of course, with defense offsets; and it appears that that is going to jump from 80 to 100 percent. Is that your prediction?

Mr. MAJAK. It seems the trend is in that direction, Mr. Chairman.

Mr. MICA. Is there anything in that area that we should explore as far as legislative limits, in your opinion, or is this something that is just bound to happen?

Mr. MAJAK. Well, we share the skepticism of industry in setting limits by legislation in this area. I think our preference is to use negotiation and have flexibility to both respond to offset requirements and to attempt, at the same time, to negotiate them away, both on a government-to-government level and on an industry-to-industry level. So I don't see a legislative mandate as a direction we would want to go, although, of course, that is the prerogative of this body, and it would depend a lot on what the provisions of such legislation might be.

Mr. MICA. Well, you have pretty good data, and of course there have been some requirements on reporting. I am wondering if sometimes the collection of aggregate information regarding offsets hasn't actually provided information to countries—it is openly available to other manufacturers to require this. I mean, everybody else is getting a piece of the action. Why shouldn't they? Are these reporting requirements now fostering this increased offset requirement?

Mr. MAJAK. I seriously doubt that they are, Mr. Chairman. As you say, they are only aggregate data.

I have no doubt that other governments may from time to time, hold up a copy of the Commerce Department report and refer to the numbers there, but my own experience with the aerospace community is that they are tough and very capable negotiators. I suspect that they have good answers to those tactics on the part of the governments or customers they are negotiating with. I think the report and the data that we provide may provide some rhetorical ammunition for these other governments, but I hardly think that it would be a decisive factor.

Mr. MICA. Another question is that if you get into the commercial arena, we heard the gentleman, Mr. Herrnstadt, say we need more information, I guess Senator Feingold said we need more information, data collection. But then I think we also heard testimony that said how difficult it is or at least a paper Mr. Herrnstadt published said how difficult it is to collect that information.

From a Department of Commerce standpoint who is responsible for collecting commercial data? Is that possible and would it be helpful and how would you go about that?

Mr. MAJAK. Well, I would say, first of all, Mr. Chairman, we of course would prefer strongly not to impose major new burdens on industry, whether the defense industry or industry generally, for data reporting to the Commerce Department. That is a principle that we try to adhere to, and it is a principle set forth in a number of pieces of legislation set forth by the Congress. So we tread carefully into new areas of data collection.

Is it feasible? I would have to say, yes, it probably is feasible.

We have one other example in my own bureau of collecting that kind of data. As you know, there is legislation prohibiting and restricting the compliance of companies with foreign boycotts, and we collect data from all companies who may be approached by any foreign party to participate in such a foreign boycott, and they are required to report to us. It is a major undertaking. We have to have computers and people and facilities to handle that kind of data.

Could it be done? It could. It certainly is feasible. I think, however, at the same time, we have a good and adequate base of information right now based upon what the 30 or 40 prime defense contractors provide us. I think we have a pretty good picture, at least of what is going on in the defense sector. If you need or want to expand that to all commercial transactions, it would be a rather large data base, and so we would have to weigh the benefits of doing that.

Mr. MICA. How many people do you currently have at the Department of Commerce that work on the offset issue?

Mr. MAJAK. Three or four.

Mr. MICA. Would it require a substantial increase in personnel to expand——

Mr. MAJAK. I think almost certainly it would, although we would hope to take advantage of economies of scale with other data collection facilities that we have. I think we would try to use some of the existing resources that we have for other kinds of data collection as best we could. But certainly it would require more than the three or four people we presently have working on this issue.

Mr. MICA. In addition to manufacturing offsets, it is very popular, particularly in the defense area, were technology transfers to be made part of the deal. Currently, the Department of Commerce, the Department of State, the Department of Defense are all involved in some way, or get involved, in the question of export controls and technology transfers.

Is the current system adequate in this offset transfer process? Are there gaps or things that we should be looking at? Is there something that we should be doing that is different? Are we going to have another embarrassment in this area, or are we adequately covered? And we will go to Mr. Volkman first, and Mr. Majak, you can be the clean-up hitter.

Mr. VOLKMAN. I think that the export license control process is very well established. I think it is generally effective in protecting the transfer of U.S. technology outside of the United States. Obviously, any——

Mr. MICA. As it works with offsets and again some of these requirements that are being imposed; and it looks like we are going to even higher percentage. Do you think that everything is in place and working well?

Mr. VOLKMAN. In order to export the technology, an export license is required. If it is a military item, a request would be submitted to the Department of State, who then consults with the Department of Defense before an export license is granted. It is my understanding that it is a very thorough process. If there is a deficiency in the process, it is that it takes too long.

Mr. MICA. One of the problems that you saw even in the China missile technology transfer is that tremendous amount of pressure from the private sector—we have to do the deal, we have to provide this technology transfer. And with an offset, you run into the same situation—pressure from the vendor to do the deal, get the technology transferred—and you see the little lobbying efforts that go on to move this technology.

Do you feel pretty comfortable that we have enough protections in place, even though there is going to be even more pressure on vendors to transfer this technology, to do the deal?

Mr. VOLKMAN. Well, I think there is always pressure when a firm wants to make a sale, whether it is a foreign military or commercial sale, that the export license be granted. I think there is an integrity in the process that permits the U.S. Government to withstand those pressures.

Certainly, that is true of the munitions license process, which involves the Department of State and the Department of Defense. I would defer to my colleague as to whether the Department of Commerce can withstand the pressures.

Mr. MICA. No further disclosure information should be revealed in the process to shed any light on this—on what is taking place?

Mr. VOLKMAN. I don't believe that we are making any improper disclosures of information because of offsets.

Mr. MICA. I am talking about disclosure where you have an offset involved, any further disclosure; do you think that is adequate?

Mr. VOLKMAN. Not that I am aware of. I don't know of any pressures for further disclosure as a result of an offset agreement.

Mr. MICA. No? That we should impose any further?

Mr. VOLKMAN. No, sir, I don't believe so.

Mr. MICA. OK.

Mr. MAJAK. I would agree with Mr. Volkman. The Commerce Department administers the export licensing process for so-called dual-use items, those that have both commercial and military applications; and we have a very thorough process. Whether the transfer is based upon an offset arrangement or not would be more or less immaterial to us. If the transfer of a technology is to be made and that technology requires a license, then we require and review those licenses. So it really wouldn't matter what the source of the transfer was, whether it was an offset arrangement or otherwise.

We do see license applications in our process which involve transfers of technology under offset agreements. But as I said, we analyze those with the same scrutiny for national security as we do any other transfer. And I think that process is generally working well and reliably.

Mr. MICA. Thank you.

Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman.

Mr. Volkman, your department within the Department of Defense is not the primary department dealing with offset policy for the Department, is it?

Mr. VOLKMAN. Well, there is probably not a primary office. Within the Department of Defense, the responsibility for discussions with foreign nations over limiting the adverse effects of offsets is

shared between my office and the Office of the Director for Defense Procurement that has a director of foreign contracting.

Mr. TIERNEY. They wrote to us and told us that they were the ones within the Department of Defense, the procurement people, with the primary responsibility for offset policy within the Department. Is that accurate?

Mr. VOLKMAN. I would say that we share that responsibility. We both work for the same under secretary.

Mr. TIERNEY. You have to share that with them then; they don't know that, just reading this, "My office has the lead for Department of Defense in these matters." That is by Dave Oliver, the principal deputy of procurement.

Mr. VOLKMAN. That is my boss. That is correct.

Mr. TIERNEY. Other industries survive quite well with offsets being restricted under international multilateral agreements. Is it your opinion that the defense industry could not survive in similar atmospheres?

Mr. VOLKMAN. I don't know the answer to that. I would echo the comments made previously, that it would be a dangerous thing to try to impose that kind of restriction unilaterally. Obviously, if it is going to be effective, it has to be agreed to by all of the participants, all of the nations that participate.

Mr. TIERNEY. It has been agreed to in other industries through multilateral agreements that it would be restricted and eliminated. Do you see any reason that we couldn't do that in Defense if we came to a multilateral/bilateral agreement to restrict or eliminate the use of offsets?

Mr. VOLKMAN. I would welcome that. I would just hasten to say that I expect that it would be a very difficult multilateral agreement to achieve.

Mr. TIERNEY. It wasn't difficult, apparently, in other industries. Why do you think that it would be difficult to achieve it in the defense industry?

Mr. VOLKMAN. My impression is that parliaments, like our Congress, want to see the large expenditures that are made on national defense spent within the borders of their country.

Mr. TIERNEY. You would agree with me that there are harmful effects to offsets?

Mr. VOLKMAN. Yes, sir.

Mr. TIERNEY. Mr. Majak, you also have come to that conclusion?

Mr. MAJAK. Very much so.

Mr. TIERNEY. Tell us about the economic inefficiencies that result from offsets.

Mr. MAJAK. Well, there are a number of them. I think probably—duplication of facilities, manufacturing facilities, is probably one of the more blatant ones.

Obviously, in defense industries, like any other industry, you want plenty of competition for both finished systems and for components, but you don't want overcapacity. That creates inefficiency. And I think foreign governments, in their eagerness to have some of these dollars spent within their own borders, probably do not take a very good look at what the global market for whatever item they are wishing to produce within their country might be.

Furthermore, many of them do not have the resources to sustain a broad military base. So to pick one item or another item to manufacture, even with assistance from the outside, is not always an economically efficient way to proceed. That is why we feel that international cooperation agreements are a more rational process by which to determine who should produce what, who should invest in what facilities. That would not eliminate offsets completely, but it would make them more economically rational.

Mr. TIERNEY. Do you have enough information in your department to give us an opinion whether or not offsets have an adverse effect on the labor market?

Mr. MAJAK. We do not specifically analyze labor impact. Perhaps we should work more closely with the Labor Department on that. We do share our data with the Labor Department, and I would look to them to make those kinds of projections.

Really, our data are confined to aggregate figures on both the number and the dollar value of offset agreements and the dollar value of implementing transactions. I mean, we can use some crude measures of what that might translate into in jobs. Personally I think those crude formulas are not very accurate, so I would look to the Labor Department to make those kinds of projections.

Mr. TIERNEY. Tell me for what reason you do collect the data that you do collect.

Mr. MAJAK. Well, I think, under the congressional mandate, we collect this data to develop a gross measure of the magnitude of the offset requirements in defense trade. That kind of data is not designed and doesn't give us the capacity to make very fine analysis of the details of these offset requirements except as we might find them out on an anecdotal basis. We are confined to dollar value of the country to which the offset is provided and that kind of basic information.

Mr. TIERNEY. Toward what end?

Mr. MAJAK. Toward the end of understanding the impact on trade and the impact on defense and moving toward restraining these activities which we have concluded are not economically efficient.

Mr. TIERNEY. What was the foundation of your conclusion that these are not economically efficient, that you want to somehow limit them or terminate them? What information did you get? Was it the aggregate figures, these numbers; it is a bad thing?

Mr. MAJAK. Well, I think both aggregate data and the anecdotal data that we do obtain enables us to evaluate the impact on particular industries. We are able to break these numbers down by industry and to distinguish the impact on subcontractors versus prime contractors. So we do some economic analysis of the data, and we have reached those conclusions from that economic analysis.

Mr. TIERNEY. Nevertheless, you don't feel that any other collection of data in any form at all would be helpful?

Mr. MAJAK. I wouldn't go so far as to say that. Certainly we would like to have more accurate and complete information, perhaps at the subcontractor level, more complete information with respect to the inclusion of foreign components in major defense systems. Some of that data is collected already by the Department of

Defense and we have access to it. I would like to have more thorough information, but without imposing major burdens on industry to provide that data.

Mr. TIERNEY. What would you need to get the information that you say that you need?

Mr. MAJAK. Well, initially perhaps, more data from the subcontractor level on their experience with offsets, the impact that it has upon them. At the present time, we do that only on a spot basis; we could do that on a more thorough basis.

Mr. TIERNEY. Would you get written information from them?

Mr. MAJAK. Yes. Our authority is based in terms of our ability to conduct surveys of industry, so we would do it through a survey, presumably. I am not talking here about the documents.

Mr. TIERNEY. Is there anything prohibiting you from doing that now?

Mr. MAJAK. Only time and resources. I think we have the authority to do that now.

Mr. TIERNEY. What kind of resources are you saying would be needed to do that?

Mr. MAJAK. This is primarily people resources, personnel.

Mr. TIERNEY. Significant—I know that Mr. Ose is going to be very concerned if it means hiring more people.

Mr. MAJAK. We collect a lot of data and do a lot of analysis now with three or four people. I couldn't put a number on how many more people. It would not be a large number unless we expanded the data collection beyond the defense export sector into all commercial activities. That would be a major expansion.

Mr. TIERNEY. Do you see any benefit of your department getting copies of the sales contracts and related documents and reports from the industries to foreign countries?

Mr. MAJAK. Well, that would obviously provide us with more detailed information with which to work. So, yes, there would be advantages to having that kind of information in terms of our detailed understanding of these transactions.

Mr. TIERNEY. Do either of you gentlemen have an opinion as to the wisdom in requiring, as a condition of entry into the WTO, that China agree to no offsets in defense procurement agreements?

Mr. MAJAK. Well, I think that question is more appropriately directed at the Department of State. Certainly, it is our view in the Commerce Department that the WTO requirements represent an important discipline on trade barriers and distorting trade practices of this kind, and we would expect China to conform to those requirements along with all of the other WTO members.

Mr. TIERNEY. Mr. Volkman, when you negotiate or discuss this with other allies in Europe or elsewhere, what is your opinion that results from those discussions as to what we would have to use for leverage? What do we have for leverage to get them to agree not to have offsets factor into contracts?

Mr. VOLKMAN. As I said, when we discuss the adverse effects of offsets in our defense relationship with other countries, their reaction invariably is that the U.S. defense market is essentially closed to foreign competition and that the way in which they compensate for that is to demand offset, or like the United Kingdom, industrial participation requirements.

Mr. TIERNEY. We know that is smoke, because fairly often we read in these reports that their real motivation for doing these things is, they are just trying to kick their economy up, right?

Mr. VOLKMAN. But if they were to agree to eliminate demands for offset, they would expect to have a clear entry for their defense industry into the U.S. defense market, which they view as closed, and I think perhaps with some justice because of protectionist legislation, small business set-asides. In fact, in the past when the U.S.—on the rare occasions that we do buy an item of major defense equipment outside of the United States, we have required that the item be produced in the United States. So we don't call it an offset, but in fact one of the conditions of the purchase was that there be assembly to a large extent, manufacture of equipment like the AV–8B Harrier aircraft, Beretta pistols purchased from Italy, that had to be assembled in the United States, trainer aircraft that was of foreign origin that has to be manufactured in the United States. So they see the United States as imposing requirements that limit their ability to manufacture in their country, or they would view them as tantamount to offsets.

Mr. TIERNEY. Mr. Volkman, do you or your colleagues have any concerns at all about the defense industrial base being dissipated in this country as a result of offsets?

Mr. VOLKMAN. We are concerned about maintaining a viable defense industrial base. So, to the extent that offsets would diminish that viable defense industrial base, obviously we would be concerned.

Mr. TIERNEY. I have no further questions right now.

Thank you.

Thank you, gentlemen.

Mr. MICA. Mr. Ose, you are recognized.

Mr. OSE. Thank you, Mr. Chairman.

Do end-user inspections fall within the offset dialog?

Mr. MAJAK. They do not as such. As I indicated in response to an earlier question, whenever a militarily sensitive technology is exported, we license that. We require a license for it. We review it.

One of the mechanisms we use to evaluate those licenses is both a pre-license check to see where the product is going and how it is going to be used and sometimes a post-license check to make sure that it got where it is going and is being used as indicated. We control those technologies, however, based on the technology, not on the basis of whether it is an offset or any other kind of arrangement.

Mr. OSE. Your trading partners, when we require an end-user inspection, do they take that as negotiating something subject to negotiation and ask for a countervailing concession?

Mr. MAJAK. Not usually. They may complain about the burden of having to provide us with access in order to conduct those inspections, but it normally does not become a subject of commercial dispute.

Mr. OSE. What happens when the trading partner—that is not within the jurisdiction of the discussion. Never mind.

Mr. Volkman, you have a comment in your testimony on page 7 about various studies and evidence showing no clear or significant impact on some sectors or subsectors of the U.S. economy. Refer-

ring to these studies, they have produced no clear evidence that offsets have a significant impact on specific sectors or subsectors of the U.S. economy, including sectors important for defense production. Congressional hearings on the subject have also presented inconclusive testimony on the negative economic effects of offsets. That is your position in your testimony.

I just want to—this is the Department's position?

Mr. VOLKMAN. I think we were recounting the results. In this case, we were recounting the results of the studies which show the ambiguity of this issue, that we are unclear as to the effect offsets have on various sectors of the defense industrial base.

Mr. OSE. When there is a defense product that is sold, presumably the buyer is buying American because of the quality or the price or the quantity or lack of availability elsewhere. In the case where it is a very specialized piece of equipment, such as an airplane, and it is not available elsewhere—say, the country of France wants to buy 117—what happens if we refuse their offsets?

Mr. VOLKMAN. Well, if it is not available elsewhere, as Mr. Johnson said earlier, their alternative is not to buy at all.

Mr. OSE. Does that occur?

Mr. VOLKMAN. I suppose it could occur that there would be a decision that absent the economic benefits to, let's say, the French economy in your example, that would result from offsets, that they would choose not to make the investment in the piece of defense equipment. If that were the case and if it were a necessary piece of defense equipment, then I think that the alliance or those who are likely to fight together in the future—and certainly in the recent past France has been a loyal participant with us in most of the conflicts that we have engaged in—that we would all be at a disadvantage as a result of the French making that decision.

Mr. OSE. What is the consequence when there is an alternative elsewhere in the world, in other words, a cargo plane?

Mr. VOLKMAN. My observation, and I would hasten to add that I am hardly an expert in this, my observation is that offsets are demanded and offsets are granted and that, in effect, one of the major items in the decision is the adequacy of the offset package.

So U.S. industry is competing with foreign industry to come up with the best offset package.

Mr. OSE. Going back to our hypothetical with France being the buyer, they have the opportunity to buy from us or any number of other suppliers; and if we don't grant the offsets, they will not make the deal because they will get the offset package elsewhere?

Mr. VOLKMAN. If there is a competing European supplier for a piece of defense equipment, one of the issues that will be considered in making the selection, whether to buy from the U.S. manufacturer or the foreign manufacturer, is the adequacy of the offset package. If we decided not to offer an offset package, that would obviously be a factor in the source selection.

Mr. OSE. These products that are transacted, whether they be cargo planes or what have you, in these instances where there is a transaction, how often or in what percentage of such transactions is there a choice being made by the buyer? In other words, in what percentage of the transactions are we not the only supplier of a

product—in other words, you have a choice of buying this one or that one?

Mr. VOLKMAN. I don't really know the answer to that. There is adequate foreign competition in most defense sales.

My staff tells me that it is about 70 percent. Apparently there is anecdotal evidence that suggests in about 70 percent of the cases there is a foreign competitor.

Mr. OSE. So in 70 percent of the transactions, if we were to adopt a policy mandating no offsets, we would, in effect, be chasing the transaction to some other country?

Mr. VOLKMAN. Yes, sir.

Mr. OSE. And losing the jobs that would otherwise be here for assembly?

Mr. VOLKMAN. We would be taking the risk that that would be the case.

Mr. OSE. You are a far better wordsmith than I am, but I will learn.

Thank you, Mr. Chairman.

Mr. MICA. I thank the gentleman.

In this GAO report, that was done last December, I believe, one of the statements on page 2 says,

> in the past, contractors had to absorb the cost of offset implementation against their negotiated profit margins.
>
> In 1992, DOD recognized that contractors incurred such costs by allowing their recovery under FMS contracts. Today U.S. Defense contractors may recover administrative costs incurred to implement their offset agreements under certain circumstances by charging such cost of purchasing of foreign governments through FMS sales contracts.

It seems that is also—well, there are not too many ways to get a handle on offsets, particularly in this defense arena.

Should we go back and revisit this, Mr. Volkman? Would it make any difference?

Mr. VOLKMAN. I am sorry, would you repeat that, sir.

Mr. MICA. The contractors have had to absorb the cost of offset implementation against their negotiated profits in the past. We changed that policy in 1992. I am wondering, if we didn't provide an incentive to these folks not to do anything, would we need to go back and change this policy, would it help any, or is it a legitimate cost?

Mr. VOLKMAN. Change the policy so that they would have to bear the costs?

Mr. MICA. Right. Again, we are trying to find some ways to discourage offsets, and if you have a vendor getting to write off—we changed the policy in 1992, letting them absorb the cost of offset implementation against their negotiated profit margins. Maybe we should go back and change this to the way it was.

Mr. VOLKMAN. My reaction to that would be——

Mr. MICA. We have several contractors squirming in the audience.

Mr. VOLKMAN. You would be placing defense contractors in a tough situation where they would have—in order to be competitive, they would have to meet offset demands, but couldn't pass on the costs of fulfilling those offset demands to the foreign customer who is, in effect, imposing the demands.

Essentially what we do is, we recognize that when a foreign customer requires that there be an offset commitment, that there are costs associated with demands for that offset commitment and that it is fair for U.S. contractors to pass those costs on to the foreign customer, the foreign government.

So I think it would be a bad idea to do what you have suggested.

Mr. MICA. So we, through our policy, help promote offsets?

Mr. VOLKMAN. No, I wouldn't say that. What the policy does is, when a contractor agrees to an offset commitment, we are treating U.S. contractors fairly by letting them recover the necessary costs associated with that. I think the reason that they enter into offset commitments, it is the price of making the sale.

Mr. MICA. And we help them write off the costs of implementing the offset.

Mr. VOLKMAN. At the expense of the foreign government; not at the expense of the U.S. Government, but at the expense of the foreign government.

Mr. MICA. Mr. Majak, did you want to respond?

Mr. MAJAK. I have nothing further to add to that difficult question.

Mr. MICA. Well, I just like to stir things up every once in awhile.

Mr. Tierney, do you have any final questions?

Mr. TIERNEY. I do. Thank you.

Are you aware of an administration attempt to put together an advisory group or panel to look into this issue and help us revisit national policy on offsets?

Mr. MAJAK. I am aware only of the interagency group headed by the Defense Department, which is mandated by the Defense Production Act.

Mr. VOLKMAN. I would say that we have the basis of a good interagency group that has been formed as a result of this cooperative relationship that we have developed.

Mr. TIERNEY. How active are we in terms of pursuing some remedy of this offset situation through bilateral or multilateral negotiations?

Mr. MAJAK. Well, in my full statement, I articulate and list the recent discussions that we had with the Dutch, the Canadians. In addition to that, we participate in many multilateral official and unofficial conferences, and attempt to convey our concerns about offsets at every opportunity within the limits of our time and personnel.

Mr. TIERNEY. Are you getting any response?

Mr. MAJAK. Yes. I think there is a receptivity in many of these discussions, which I think we need to take advantage of by intensifying these discussions. We are continuing with Defense to schedule additional ones.

There is receptivity to restraints on offsets if we can mutually find a way out of the current practices; and that is the difficult part. But, yes, I think generally, we find there is more interest in restraints than one would suppose from looking at the volume of demands.

Mr. TIERNEY. Mr. Volkman, do you know roughly what the percentage of people in the Department of Defense procurement division is that formerly worked within the defense private industry?

Mr. VOLKMAN. No, I don't know the answer to that. I would suspect that it is not very large.

Mr. TIERNEY. Why do you suspect that?

Mr. VOLKMAN. Mainly because I know people who are in civilian procurement for the Department of Defense, and it is not noticeable that many of them come from the defense industry to government, at least at the working level. It may happen on occasion that someone will come from an industry position to a government position, perhaps at the executive level, but the bulk of the work force does not have industry experience.

Mr. TIERNEY. Thank you, Mr. Chairman. I thank the witnesses also.

Mr. MICA. Mr. Ose.

Mr. OSE. No further questions.

Mr. MICA. There being no further questions of this panel, I would like to thank Mr. Majak and Mr. Volkman for their participation in representing the Department of Commerce and the Department of Defense at the hearing today. We will keep the record open for 1 week, without objection, so we can receive additional testimony or statements from members.

There being no further business to come before the subcommittee this afternoon, this meeting is adjourned.

[Whereupon, at 12:35 p.m., the subcommittee was adjourned.]

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