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Keeping U.S. Aviation Manufacturing Competitive

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Mr. Chairman and members of the Subcommittee, my name is Janet Harrah. I am director of the Center for Economic Development and Business Research housed in the W. Frank Barton School of Business here at Wichita State University.

Aviation manufacturing is a vital sector of the U.S. economy. First let's define the industry. It consists of companies engaged in the manufacture of complete aircraft, aircraft parts and engines as well as guided missiles and space vehicles. It also includes the overhauling, rebuilding and conversion of aircraft. Aircraft produced in the United States are very diverse ranging from fixed wing planes and helicopters to business jets and commercial airliners.

The industry has a wide footprint. While states such as California, Washington, Texas, Kansas, and Arizona account for the largest number of aerospace jobs, nearly every state has employment in the aviation manufacturing sector.

Now let's examine the overall competitive environment for this industry and it is indeed fierce. A few large companies dominate certain sectors such as the manufacture of engines. Together General Electric and Pratt & Whitney account for about 80 percent of engine revenues. On the other hand, there are a large number of companies producing aircraft parts. Profitability depends on efficient and timely production. Small companies compete by specializing in high-end, low-volume parts, or in high production of low-priced commodity parts. Large companies with economies of scale, leverage their volume in negotiating with suppliers, and also leverage their leeway in pricing to customers, since larger companies can often afford to lower margins to make a deal. Consequently, revenues per employee are usually higher for large companies compared to smaller companies.

The size of the industry is impressive. In 2004 value added for the industry totaled $95 billion. The value of shipments totaled $165 billion and exports for the industry totaled $57 billion or nearly 7 percent of total U.S. exports.

In 2005, more than 606 thousand Americans were employed in the aviation manufacturing industry. Companies engaged in the manufacture and assembly of complete aircraft account for the largest percentage of jobs followed by firms primarily engaged in manufacturing search and detection systems and instruments.

Employment projections indicate that aircraft and aircraft parts manufacturing employment will increase 8 percent over the next decade adding more than 36 thousand jobs. Total employment for all industry sectors is projected to increase 15 percent.

The drop in air travel and severe financial problems of many U.S. airlines following 9/11 led to drastic reductions in commercial aircraft orders. This in turn resulted in significant employment reductions in the manufacturing sector in recent years. However, rising orders are expected over the next decade due to increases in air traffic and the need to replace aging aircraft.

The outlook for the military aircraft and missiles portion of the industry is better. Concern for the Nation's security has increased the need for military aircraft and military aerospace equipment.

A growing concern for the industry is the rising need to hire replacement workers. Many engineers who entered the industry in the 1960s are nearing retirement. The same is true for production workers. For example, in many of our local plants here in Wichita, 50 is the median age for production workers. In 2004 the industry employed 45,000 engineers. Training and attracting skilled replacements will be critical to maintaining the industry's worldwide competitiveness in the coming decade.

The aviation manufacturing sector employs many workers, but in a relatively few number of establishments. Nationally, there are 13.4 workers per establishment. In the aviation manufacturing sector there are 161.5 workers per establishment. This reflects the large scale of many of the facilities in the industry.

The industry's payroll exceeds $45 billion annually. In 2004, the average wage for the industry was $73,000 or 86 percent higher than the overall average of $39,000 for all private-sector jobs. These above average earnings reflect the high levels of skill required by the industry.

In 2004, 17 percent of all workers in the aerospace industry were union members or covered by union contracts, compared with about 14 percent of all workers throughout private industry.

The economic numbers for the aviation manufacturing industry are impressive: more than 600,000 employees, $45 billion in annual payroll, $165 billion in annual shipments and more than 3,700 establishments. However, these direct numbers tell only part of the story. The aviation

manufacturing industry is an enormous one that has a cascading effect on other industries in the United States. The industry has a large supplier base. Companies engaged in aviation manufacturing purchase large volumes of goods and services from a wide variety of other industries. In 2004 the cost of materials for the aviation manufacturing industry totaled $68 billion.

To conclude, the economic activity linked to the aviation manufacturing industry totals $142 billion in payroll and 2.8 million employees in the U.S. as a direct or indirect result of the industry.