THE ECONOMIC IMPACT OF THE ARDMORE AIRPARK AS AN AIR CARGO PORT

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Introduction and Economic Context

Oklahoma is undergoing an economic transformation that runs counter to its economic heritage. A robust state history of oil and gas exploration, agricultural production, Native American communities, and a strong network of community banking all support a heritage of rural economic strength. The present, however, is defined by an increasing concentration of people and economic activity in the state's urban areas. Urbanization will create both economic opportunities and challenges. Rare will be the policy or development that serves both urban and rural economies. This report provides a first look at the potential economic impacts from developing and operating the Ardmore Airpark as a regional inland port for international air cargo and discusses the potential economic impacts of the project to both urban and rural areas of the state.

People and economic activity are increasingly concentrated in dense, amenity-rich, urban areas. The rise of urban economies is not limited to the U.S. or developed nations, but extends to the developing world. A recent panel presentation of distinguished academics summarized nicely both the social challenges created by rapid urbanization as well as the unique resources available in cities to meet these challenges.[1]

Urbanization feeds itself through a process of productive spillovers. As firms co-located in urban centers, knowledge spillovers between firms spur innovation. A concentration of production activity requires a robust supply chain and support sectors which invites additional productive activity. A concentration of people in the urban center invites amenities that facilitate shared consumer experiences and attracts an educated, creative, and innovative labor supply. These channels of productivity spillovers continue to drive people and economic activity to concentrate in urban centers.[2]

The origins of modern urbanization can be traced to technological and transportation efficiencies that have drastically decreased transaction costs – the costs associated with providing information about, facilitating the sale of, and delivering the good or service. Falling transaction costs lower the cost to a producer of locating productive activity away from the final point of consumption. Urbanization is the natural confluence of these two influences – falling transaction costs that allow

[1] For an abridged transcripts of the comments offered by Richard Florida and Ed Glaeser, see https://www.citylab.com/equity/2017/04/two-takes-on-the-fate-of-future-cities/521907/

[2] The economic spillover channels summarized are generally referred to as economies of scale, production agglomerations, and consumption agglomerations.

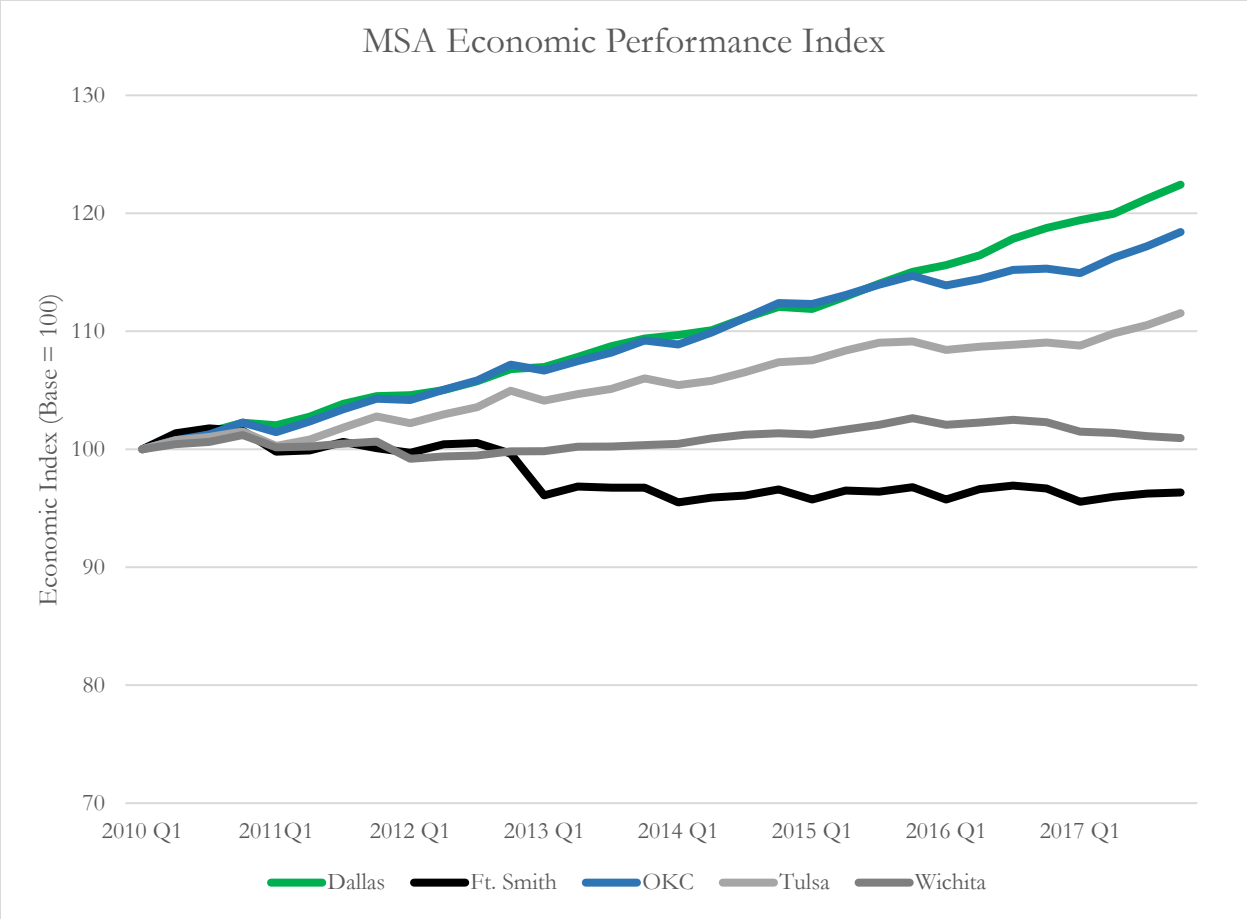
firms to locate away from their final markets and the productive spillovers from co-location. The pattern and pace of urbanization, however, is influenced by geography and amenities.

Gains in transportation and energy efficiency have spurred population flows to the south and west. These population flows represent long run trends. Over the last generation the fastest growing geographies in the U.S are Florida, Arizona, and the I-35 corridor running through Texas and into Oklahoma. The forces of geography will extend into the next generation making urban areas in the south and west natural pulls for people and economic activity. As economic activity is attracted to this region, the need for rapid access to global supply chains and the appetite for imported consumption will increase accordingly.

As activity moves south and west, it will be attracted to areas that offer a rich assortment of amenities that allow residents to have shared experiences. Amenities complement individual and household efforts to maximize their quality of life. Amenities can be either natural or the result of public policy and generally fall into three categories: education amenities, recreation amenities, and transportation amenities. The graph below illustrates the diverging economic realities of cities given their geography and amenities.

An economic index is constructed for five regional cities: Ft. Smith, Dallas, Oklahoma City, Tulsa, and Wichita. Each index is comprised of a set of economic variables including employment, wages, business establishments, and labor force. Cities along the I-35 corridor generally enjoy better geography than cities located off of the corridor (e.g. Ft. Smith). Along the corridor, cities on the southern edge enjoy a stronger geographical influence than cities on the northern edge of the corridor. Finally, bigger cities with greater density and amenity offerings generally enjoy stronger economic growth.

The index of economic activity has contracted in Ft. Smith since emerging from the great recession in 2010 while economic activity has been mostly flat in Wichita. This result is not surprising as these cities struggle both with geography and amenities. Economic activity is up in Tulsa, but growing at a place significantly slower than activity in Oklahoma City. Again, this result is not surprising given Oklahoma City's geography farther south on the I-35 corridor. Finally, the index of economic activity is up sharply in Dallas, outpacing economic gains in Oklahoma City.



The obvious interpretation of the graph above is that cities benefit from their geography and amenities. A less obvious interpretation is that economic realities continue to diverge not just between urban and rural areas but also between regional urban economies. Dallas is already a larger city than Oklahoma City, yet it is growing faster in terms of labor force and employment. The nature of compound growth guarantees that the gap between the two urban centers will only widen in the future. The same is true between Oklahoma City and Tulsa. If current population and labor force trends continue, the gap between the state's largest metropolitan areas will widen considerably in the years ahead.[3]

The Ardmore Airpark is situated midway between the Dallas and Oklahoma City metro areas. Spurred by its proximity to major metro centers, strategic investments from the Native American community, and geography, the area between Dallas and Oklahoma City is rapidly developing. It is likely that within a generation or two, the I-35 corridor between the two cities will be a contiguous

[3] Tulsa recently entered the amenity development space very effectively with the development of The Gathering Place.

region of economic activity. The development of the Ardmore Airpark will expedite the full connection between metropolitan areas while stimulating export destined production in both states. The development and operations of the airpark will benefit the urban centers as each reaches towards the other while the increased opportunities to export manufactured and agricultural commodities will provide much needed economic opportunities to the region's rural economies.

The remainder of this report is organized as follows. A brief discussion of current Oklahoma exports and transportation infrastructure is presented and accompanied by an overview of the proposed facilities at and around the airpark, followed by an overview of the methodology of economic impact analysis in this context. The preliminary economic impact estimates are then presented. Finally, a brief discussion of the impacts and concluding comments complete the report.

Oklahoma Exports, Infrastructure and Project Overview

Oklahoma exported $6.1 billion in agricultural and manufactured commodities. The value of Oklahoma exports ebb and flow with economic and commodity price cycles. Exports peaked in 2013 at $6.9 billion before falling as Oklahoma experienced a prolonged period of low commodity prices. Exports growth returned with economic growth in 2017 with exports experiencing 13.8% growth in 2018.

Oklahoma Exports		
Year	Export Value	Growth from Previous Year
2009	4,414,915,717	
2010	5,354,115,399	21.3%
2011	6,227,675,655	16.3%
2012	6,578,543,474	5.6%
2013	6,919,746,438	5.2%
2014	6,308,264,729	-8.8%
2015	5,250,680,332	-16.8%
2016	5,046,076,938	-3.9%
2017	5,364,366,602	6.3%
2018	6,102,425,059	13.8%

Source: U.S. Census; usatrade.census.gov

Oklahoma exports primarily consist of manufactured commodities with manufactured machinery, transportation equipment, and electronic products topping the ranks of Oklahoma exports. Manufactured commodities hold nine of the top ten spots with $289 million in agricultural products coming in at eight. The primary subcomponent of transportation equipment exports is aircraft while the largest subcomponent of agricultural products is cotton.[4]

The table below of primary Oklahoma exports will be important when considering the potential economic impacts of developing and deploying the Ardmore Airpark as an inland international air cargo port. One of the avenues of economic impact (to be discussed later in this report) is the access the airpark will provide for Oklahoma produced goods to reach foreign markets. Among the industries most likely to benefit from greater foreign market access are the industries already successfully engaged in export production. As market access incentivizes greater production from these industries, the Oklahoma economy will experience multiplier, or spillover economic activity. This spillover activity is estimated and reported in a subsequent section of this report.

Oklahoma Exports by Industry			
Rank	Industry	Export Value 2018	Share of Total
1	333 Machinery, Except Electrical	$1,085,660,696	17.8%
2	336 Transportation Equipment	$1,059,637,617	17.4%
3	334 Computer & Electronic Products	$894,190,633	14.7%
4	325 Chemicals	$655,332,778	10.7%
5	332 Fabricated Metal Products, Nesoi	$512,520,268	8.4%
6	335 Electrical Equipment, Appliances & Components	$370,681,466	6.1%
7	311 Food & Kindred Products	$353,611,068	5.8%
8	111 Agricultural Products	$289,015,679	4.7%
9	331 Primary Metal Mfg.	$236,218,644	3.9%
10	326 Plastics & Rubber Products	$147,518,243	2.4%
11	Other	$498,037,967	8.2%
	Total	$6,102,425,059	100.0%

Source: U.S. Census; usatrade.census.gov

[4] For a summary of trade activity by state, see https://globaledge.msu.edu

The destination for Oklahoma exports is primarily North America and Europe, with these two regions combining to account for 64% of all Oklahoma exports in 2018.

Oklahoma Exports By Destination Region			
Rank	Region	Export Value 2018	Share of Total Exports
1	North America	$2,422,267,599	39.7%
2	Europe	$1,478,833,217	24.2%
3	Asia - Other	$1,160,363,568	19.0%
4	Asia Near East	$336,646,738	5.5%
5	South America	$279,341,449	4.6%
6	Africa	$139,195,312	2.3%
7	Australia and Oceania	$113,636,771	1.9%
8	Asia - South	$94,569,549	1.5%
9	Central America and Caribbean	$77,570,856	1.3%
	Total	$6,102,425,059	100.0%

Source: usatrade.census.gov

Within these regions, Oklahoma's primary trade partners in 2018 were Canada, Mexico, and Germany with these top three countries receiving 50% of all Oklahoma exports. The top 10 countries of destination for Oklahoma exports reported below accounted for 71.7% of all Oklahoma exports in 2018.

Oklahoma Exports by Destination Country			
Rank	Country	Export Value 2018	Share of Total Exports
1	Canada	$1,638,956,727	26.9%
2	Mexico	$783,308,110	12.8%
3	Germany	$611,761,042	10.0%
4	Japan	$295,780,415	4.8%
5	Netherlands	$246,136,821	4.0%
6	China	$203,211,428	3.3%
7	Singapore	$188,831,819	3.1%
8	United Kingdom	$157,488,413	2.6%
9	Hong Kong	$154,662,535	2.5%
10	Australia	$96,431,639	1.6%
	All Other	$1,725,856,110	28.3%
	Total	$6,102,425,059	100.0%

Source: usatrade.census.gov

While Oklahoma currently ranks 38th and 34th in U.S. exports and imports respectively, much of the infrastructure for expanding the international flow of goods through the state is already in place. Oklahoma is centrally located to one of the fastest growing regions of the U.S. – the I-35 Corridor megalopolis.[5] As the name of the megalopolis region suggests, the area is defined by its connectivity via the I-35 transportation infrastructure system. The Ardmore Airpark is situated along the corridor approximately 1.5 hours from either the Dallas or Oklahoma City metro areas. Once in these areas, the transportation of goods has easy access to much of the South-Central and Midwest U.S. via I-44 and I-40 in Oklahoma City and I-20 and I-45 in Dallas.

An overview of the freight infrastructure already in place in Oklahoma is provided in the Oklahoma Department of Transportation 2015-2040 Long Range Transportation Plan (ODOT LRTP). Oklahoma moves more than one billion tons of freight into, out of, and through the state annually. Consistent with the access offered to major markets via I-35, I-40, and I-44, 65.7% of freight movement is via truck. Of the freight shipments via truck, 61.5% are through shipments of freight moving on to other markets in the U.S. Rail shipments account for 33.6% of all freight movement in the state. As rail typically moves bulk freight, it is not surprising that 84% of all rail freight transportation are through shipments. In total, through shipments account for more than 68% of all freight movements in the state.

Million Tons of Freight, 2015						
Mode	Inbound	Outbound	Internal	Through	Total	Mode Share of Total
Truck	45.8	59.0	149.8	407.1	661.7	65.7%
Rail	31.0	18.9	3.8	285.0	338.7	33.6%
Waterway	3.1	3.3	0.0	0.0	6.4	0.6%
Total	79.9	81.2	153.6	692.1	1,006.8	100.0%

From ODOT LRTP Chapter 7 - Freight Transportation and Economic Conditions

Freight transportation is expected to grow in Oklahoma. The pace of economic development along the I-35 corridor will drive some of this growth. The development of the Ardmore Airpark as an international air cargo port would serve as an exogenous shock to the regional transportation sector. This increase in demand for freight transportation services will show up subsequently in the

[5] For a review of the megalopolis idea and the growth of the I-35 corridor, see *Beyond Megalopolis: Exploring America's New "Megapolitan" Geograpahy*, by Robert E. Land and Dawn Dhavale of the Metropolitan Institute at Virginia Tech available at america2050.org.

estimated economic impacts. Given the trajectory of economic conditions, the Long Range Transportation Plan foresees a similar pattern of freight movements but at higher levels. By 2040, Oklahoma is expected to move more than 1.4 billion tons of freight into, out of, and through the state. Building on the natural access to major markets via the interstate highway infrastructure, truck freight is expected to account for 70.6% of all freight shipments in 2040. Rail shipments are anticipated to account for 28.8% of freight shipments with rail shipments largely constituting through movements. In total, freight movements through the state with a final destination in other U.S. markets accounts for 68% of freight movements.

Million Tons of Freight, 2040 Forecast						
Mode	Inbound	Outbound	Internal	Through	Total	Mode Share of Total
Truck	79.8	76.2	222.6	629.9	1,008.5	70.6%
Rail	47.7	17.3	5.0	341.7	411.7	28.8%
Waterway	4.0	4.3	0.0	0.0	8.3	0.6%
Total	131.5	97.8	227.6	971.6	1,428.5	100.0%

From ODOT LRTP Chapter 7 - Freight Transportation and Economic Conditions

Oklahoma's existing freight infrastructure will complement and enhance the productivity of air cargo operations while Oklahoma's modest current export activities are poised to benefit from lower cost access to foreign markets.

The Ardmore Industrial Airpark served previously as a military airport until being de-commissioned in the 1960's. Since de-commissioning, the airpark and surrounding land has gone through phases of development and currently operates as a public and privately-owned intermodal logistics hub. The airpark and surrounding area offers warehousing and transload capabilities, with direct access to air, truck, and rail facilities. The airpark recently completed $1.6 million in improvements on its 9,000-foot runway and state-of-the-art FAA control tower upgrades.

Existing coastal international air cargo ports, including Seattle, Los Angeles, New York, Miami, and Houston are traffic congested. The congestion – both within the port itself and in successfully transferring cargo to truck freight operations – is increasing the real cost of port expansion. The development and operations of the Ardmore airpark will provide an alternative to these congested ports while providing a dedicated cargo port that bypasses much of the congestive passenger air traffic.

The airpark is centrally located on 2,955 acres in one of the fastest growing regions of the United States with nearly 20% of the U.S. population within 500 miles of the airport. A range of lot sizes are available for development across nearly 1,300 acres located either inside of or adjacent to the airpark. The airport is adjoined by an industrial park allowing manufacturing and distribution operations the ability to optimize their supply chain needs. The airpark itself resides within the Ardmore City limits and is served by city utilities. Three phase power is provided by Oklahoma Gas & Electric, natural gas is provided by Oklahoma Natural Gas, and telecom services, including high speed data and fiber connections, are provided through Chickasaw Telephone.

As trends towards increased air shipments of higher value-to-weight and time sensitive cargo, the challenges of passenger vehicle traffic, freight handling, and tarmac operational delays will persist at existing major air cargo ports. These existing airports will continue to explore policies and uses of technology to mitigate the cost increases imposed by congestion. The Ardmore Airpark is positioned to serve as a key piece of the congestion solution, offering a dedicated cargo-specific facility that doesn't compete with commercial passenger traffic airport resources. Shipments can be quickly transferred to on-site storage, to truck freight just minutes from the nation's main north/south interstate, and to rail via an existing 6.3-mile line and 2-mile loop that connects directly to a BNSF main line. Inputs to production can be immediately transferred to onsite or adjacent manufacturing facilities for value-added production. To further expedite the handling of cargo, airpark developers are working to emplace Trusted Trader Status agreements with select governments allowing 24/7/365 access to the airpark through U.S. airspace from flights originating in those countries.

The full development and operations of the airpark will exert an impact on the Oklahoma economy in four ways. First, the full development of the airpark will entail capital expenditures to expand infrastructure and construct warehousing and manufacturing facilities. These capital expenditures represent new demand for Oklahoma produced goods and services (primarily commercial construction) and will generate a stream of spillover, or multiplier impacts. Second, the operations of the airpark will require new area jobs, income payments, and production generating another stream of multiplier impacts. The operations of the airpark will serve as a catalyst for increased production of Oklahoma exports with its own stream of multiplier impacts. Finally, the full operations of the airpark will serve as an accelerant to regional economic growth along the I-35 corridor.

The Economic Impact of Airpark Development and Operations

The primary methodology of economic impact analysis is input-output analysis. These models begin with a frozen-in-time snapshot of the regional economy. From this snapshot, the flows of goods and services between industries and institutions are identified allowing the model to capture inter-industry relationships. For example, the flows between the manufacturing and construction industries might reveal a relationship in which every additional dollar of construction output requires $0.20 of output from the local manufacturing sector. The relationships between the local construction industry and other industries are derived similarly. In combination, these inter-industry linkages allow the model to derive a construction activity multiplier. The multiplier expresses the estimated *total* change in regional economic activity from new *direct* demand for regional construction services.

Estimating the economic impact from the development and operation of the airpark begins with identifying potential streams of new direct demand. As the development and operations of the airpark progresses, and initial layer of direct economic impact is expected in the form of commercial development of facilities. These facilities include infrastructure development, site preparation, construction of warehousing and manufacturing facilities, and other capital investment in and around the airpark. Estimates of the total economic impact are derived from an initial direct investment ranging from $75 million to $125 million.

Development Impacts: CAPEX $75 Million			
	Employment	Labor Income	Output
Direct Impact	629	$33,446,793	$75,000,000
Multiplier Impact	367	$18,549,523	$56,910,238
Total Impact	996	$51,996,316	$131,910,238

Development Impacts: CAPEX $100 Million			
	Employment	Labor Income	Output
Direct Impact	839	$44,595,725	$100,000,000
Multiplier Impact	489	$24,732,696	$75,880,317
Total Impact	1,328	$69,328,421	$175,880,317

Development Impacts: CAPEX $125 Million			
	Employment	Labor Income	Output
Direct Impact	1,049	$55,744,656	$125,000,000
Multiplier Impact	611	$30,915,870	$94,850,396
Total Impact	1,660	$86,660,526	$219,850,396

The economic impacts from development are attributable to construction, infrastructure improvements, and other large scale expenditures. These expenditures tend to be labor intensive with much of the contract labor pulled from regional labor markets. The economic impacts from one-time development expenditures range from 996 to 1,660 new jobs supported by $52 million to $86.7 million in new labor income with a total statewide economic impact ranging from $131.9 million to $219.8 million. These impacts will occur one-time as the initial development spending is a one-time expense. The impacts, however, will stretch across time according to the pattern of the development expenditures and the longevity of the multiplier process.

The next layer of economic impacts results from the operations of the airpark facility. Estimating the impacts from operations begins with an estimate of the new demand for cargo services. The new demand will be reflected in the revenue generated from airpark operations with the revenue generated in turn a function of the total pounds of cargo enplaned (quantity of services demanded) and revenue generated per pound enplaned (price per unit). Total direct revenue from operations are estimated for a range of cargo pounds enplaned and revenue per pound as presented below.

		Total Cargo Pounds Enplaned		
		300,000,000	350,000,000	400,000,000
Revenue per Pound	$1.75	$525,000,000	$612,500,000	$700,000,000
	$2.50	$750,000,000	$875,000,000	$1,000,000,000
	$3.25	$975,000,000	$1,137,500,000	$1,300,000,000

The low end of the estimates assumes 300,000,000 pounds of cargo enplaned at a revenue per pound of $1.75 resulting in total revenue from operations (new demand of air cargo transportation services) of $525 million. The high end of the estimates assumes 400,000,000 pounds of cargo enplaned at a revenue per pound of $3.25 resulting in total revenue from operations (new demand of air cargo transportation services) of $1.3 billion. A middle estimate results in a projected $875 million in airpark operations revenue.

The grid presented above provides an easy visualization of the interplay of cargo enplanements and revenue per pound of cargo enplaned in determining the direct economic contribution of the airpark at full operations. While nine total combinations are presented, the multiplier impacts from operations are estimated only for the low, medium, and high scenarios just described.

Cargo Port Operations Low: 300 M pounds enplaned @ $1.75 Revenue per pound			
	Employment	Labor Income	Output
Direct Impact	1,572	$159,509,541	$525,000,000
Multiplier Impact	3,008	$158,018,645	$513,957,179
Total Impact	4,580	$317,528,186	$1,038,957,179
Cargo Port Operations Medium: 350 M pounds enplaned @ $2.50 Revenue per pound			
	Employment	Labor Income	Output
Direct Impact	2,620	$265,849,235	$875,000,000
Multiplier Impact	5,014	$263,364,408	$856,595,299
Total Impact	7,634	$529,213,643	$1,731,595,299
Cargo Port Operations High: 400 M pounds enplaned @ $3.25 Revenue per pound			
	Employment	Labor Income	Output
Direct Impact	3,893	$394,976,007	$1,300,000,000
Multiplier Impact	7,449	$391,284,262	$1,272,655,873
Total Impact	11,342	$786,260,269	$2,572,655,873

At full operations, the airpark would be a hub of economic activity in southern Oklahoma. Estimates of total employment impacts range from 4,580 to 11,342 supported by $317.5 million to $786.3 million in labor income with a total economic impact ranging from $1 billion to $2.6 billion on the state's economy.

A couple of comments on the impacts from operations are important to note. First, the assumptions on the volume of cargo to pass through the operations is modest compared to major air cargo hubs, such as Memphis and Hong Kong which are among the most productive air cargo hubs in terms of cargo volumes. The upper end assumption of 400,000,000 pounds of cargo enplaned would represent less than 10% of the volume of Memphis and would rank the Ardmore Airpark well outside the top 10 U.S. airports in terms of cargo volumes. Second, the impacts are estimated from existing relationships between the air transportation sector and all other sectors of the state's economy. No attempt to adjust the multipliers have been made to reflect the specific nature of the airpark as a cargo rather than a passenger facility.

The final layer of economic impacts is the result of a catalyst effect as the airpark lowers the real cost of accessing foreign markets for Oklahoma producers. In doing so, the airpark facilitates new demand for Oklahoma exports from foreign buyers. The increased production of Oklahoma exports serves as a final source of direct economic impact with its own associated multiplier impacts.

The economic impacts from the export catalyst begins by returning to the list of primary agricultural and manufactured products exported in Oklahoma. Impacts are estimated for three scenarios ranging from an increase in the production of Oklahoma exports from 5% to 10% of the current baseline. The total direct impact by major industry is reported below for each scenario. The values in the final three columns serve as inputs to the economic impact models.

Oklahoma Exports by Industry					
Rank	Industry	Export Value 2018	5% Growth	7.5% Growth	10 % Growth
1	333 Machinery, Except Electrical	$1,085,660,696	$54,283,035	$81,424,552	$108,566,070
2	336 Transportation Equipment	$1,059,637,617	$52,981,881	$79,472,821	$105,963,762
3	334 Computer & Electronic Products	$894,190,633	$44,709,532	$67,064,297	$89,419,063
4	325 Chemicals	$655,332,778	$32,766,639	$49,149,958	$65,533,278
5	332 Fabricated Metal Products, Nesoi	$512,520,268	$25,626,013	$38,439,020	$51,252,027
6	335 Electrical Equipment, Appliances & Components	$370,681,466	$18,534,073	$27,801,110	$37,068,147
7	311 Food & Kindred Products	$353,611,068	$17,680,553	$26,520,830	$35,361,107
8	111 Agricultural Products	$289,015,679	$14,450,784	$21,676,176	$28,901,568
9	331 Primary Metal Mfg.	$236,218,644	$11,810,932	$17,716,398	$23,621,864
10	326 Plastics & Rubber Products	$147,518,243	$7,375,912	$11,063,868	$14,751,824
11	Other	$498,037,967	$24,901,898	$37,352,848	$49,803,797
	Total	$6,102,425,059	$305,121,253	$457,681,879	$610,242,506

Source: U.S. Census; usatrade.census.gov; author calculations

The full operation of the airpark will be a stimulus to Oklahoma's export producing industries. The direct impact of the export stimulus is estimated to range from $305.1 million to $610.2 million with the direct impact spread across industries ranging from machinery manufacturing to electronic products manufacturing to food and animal products production. The total economic impact for each scenario is report below.

Export Catalyst Impact: 5% Export Growth			
	Employment	Labor Income	Output
Direct Impact	1,525	$86,327,527	$305,121,253
Multiplier Impact	1,301	$58,671,413	$185,574,667
Total Impact	2,826	$144,998,940	$490,695,920
Export Catalyst Impact: 7.5% Export Growth			
	Employment	Labor Income	Output
Direct Impact	2,287	$129,491,290	$457,681,879
Multiplier Impact	1,952	$142,007,120	$278,362,001
Total Impact	4,239	$271,498,410	$736,043,880
Export Catalyst Impact: 10% Export Growth			
	Employment	Labor Income	Output
Direct Impact	3,049	$172,655,053	$610,242,506
Multiplier Impact	2,602	$117,342,828	$371,149,334
Total Impact	5,651	$289,997,881	$981,391,840

The economic impacts stemming from the export stimulus catalyst of the airpark range from 2,826 to 5,651 new jobs supported by $145 million to $290 million in new labor income with a total economic impact ranging from $490.7 million to $981.4 million.

The final layer of economic impacts is not captured in the current analysis. The full development and operations of the airpark will serve as an accelerant to regional economic growth. As the airpark creates density in southern Oklahoma and further connects the Oklahoma City and Dallas metropolitan areas. The impacts from the accelerating growth are important considerations but are not easily capture in input-output analysis.

Finally, a comment on the geography of the impacts presented above is helpful. All economic impacts are estimated for the state of Oklahoma, reflecting the potential of the project to create new demand for goods and services across the state. The export catalyst impacts in particular are likely to be spread across the state according to the location of the export production. Other impacts, including impacts to professional services, major vendors, and specialized consumer services (medical, recreational, etc.) will be concentrated in the state's metro areas. Finally, a significant portion of the impacts are likely to remain local to the Ardmore and surrounding economies.

Conclusion

The development and operations of the Ardmore Airpark as an international air cargo port facility will provide access for foreign imports to a dedicated air cargo facility with rail and freight access to nearly 20% of the U.S. population. For Oklahoma producers, the facility will provide easier access to foreign market by reducing a barrier to exporting Oklahoma agricultural and manufactured products. The full development of the airpark and adjacent property combined with the operations of a major air cargo facility will exert economic impacts across the state. The total economic impacts are estimated to range from 8,402 to 18,653 new jobs with $514.5 million to $1.2 billion in new labor income. In total, the development and operations of the airpark are estimated to generate a total economic impact to the state ranging from $1.7 billion to $3.8 billion.

Economic Impact Summary	
Employment	
Low	High
8,402	18,653
Labor Income	
Low	High
$514,523,442	$1,162,918,676
Output	
Low	High
$1,661,563,337	$3,773,898,109