



The Economic Impact of Ambulatory Surgery Centers in Texas

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Summary

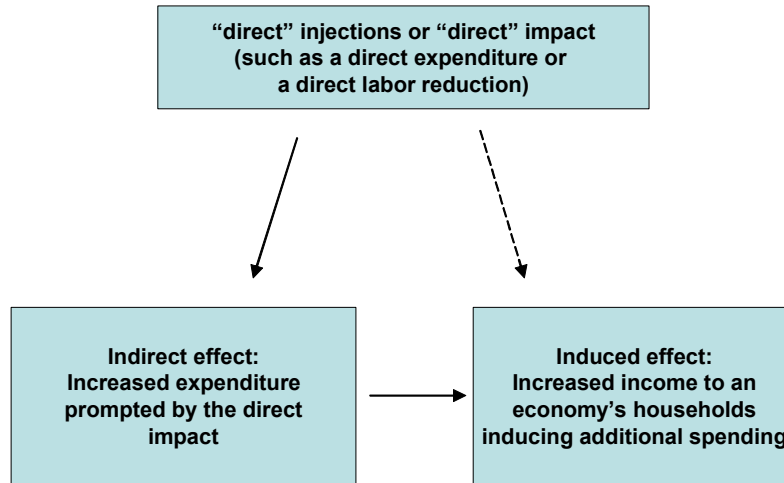
We measure the net economic impact of ambulatory surgery centers (ASCs) on the statewide economy in Texas. We use an economic method referred to as “input-output” analysis. These models describe each state’s economy as a series of inter-linked industries and sectors. A stimulus to one sector, such as a new firm or cluster of firms, impacts all other sectors in the economy, to varying degrees, through a “multiplier effect.” We use statewide industry data (from IMPLAN) combined with operating expenditure data on ambulatory surgery centers in order to calculate the economic impact of ambulatory surgery centers. We find that ambulatory surgery centers add considerable value to the Texas economy—a projected 2009 impact of \$1.7 billion, including more than \$424 million in tax payments.

Methods

To obtain a measure of the total impact that a policy might have on an economy, several components of that total impact need to be measured. The first component is the “direct” effect. This is the initial effect that a policy is to have on an economy. In our case, the direct effect is the added payroll and capital expenditures generated by ambulatory surgery centers in each state. The remaining effects are referred to as the “indirect” and “induced” effects (described below). To measure these effects, an Input/Output (IO) model of a local economy is employed.

An IO model describes an economy as a series of inter-linked industries or sectors. A stimulus to one sector, say a tax on a particular sector, then impacts all other sectors in the economy, to varying degrees, through a “multiplier effect.” This is illustrated in the figure below.

Figure 1
The Multiplier Effect



The multiplier effect measures the indirect and induced impact of a direct injection. As a matter of technical exposition, indirect effects are those “re-spending” effects that filter through other industries in an economy as a result of the direct injection. For instance, suppose a direct impact on hotel expenditures boosts demand for cleaning services at these hotels (an initial indirect effect). This stimulates demand for those sectors that supply cleaning capital and cleaning products (a secondary indirect effect). This secondary indirect effect stimulates demand in other sectors, and so on. The sum of all these effects on other industries is the indirect effect. The induced effect is the effect on final demand in an economy. Final demand can be characterized in the following way. All of these sectors employ people locally. Increased demand for output from these sectors induces additional labor inputs, paid for via wages and salaries. The resulting increase in employee incomes *induces* additional spending locally. This additional spending is the induced effect. The continual “re-spending” of the original direct injection accumulates through to the local economy.¹

¹ For a complete survey of IO models and their various strengths and weaknesses, see for example Raa, T.T., (2005) “The Economics of Input-Output Analysis” Cambridge University Press

The total effect is then the sum of the direct, indirect, and induced effects. From these figures, we obtain economic multipliers, which can be thought of as measures of the impact of one dollar's worth of direct injections. For instance, if an additional \$100 of direct expenditure is spent on, say, groceries, this would stimulate spending by the grocery sector to source grocery items from suppliers. This spending might be \$40. In turn, there may be a need for additional labor in the grocery sector, generating additional income and thus additional spending, of say, \$15. Taken together, the aggregate impact of the initial \$100 injection was \$155 to the economy.

In order to conduct these simulation models, we employ specialized software and obtain state-level economic data from one central source.² The stimulus that we model is simply the total payroll³ and expenses related to capital, insurance, and maintenance for each ASC in the state. We calculated per-ASC estimates based on Bureau of Labor Statistics data, and multiplied those estimates by the number of ASCs as reported to the state. We then add estimates of expenses related to taxes (property; sales; payroll; income; and other taxes), capital costs, and maintenance costs based on interviews with industry leaders and publicly available data from websites.⁴ The simulation models use economic data from 2007 and ASC count data from July 2008, and the models project to 2009 by applying a conservative 3% inflation factor.

Results

The results are summarized in Table 1. Texas ASCs employ 7,380 full-time equivalent individuals, or about 20 employees per facility. Total direct impact (payroll; capital; insurance and maintenance) is \$690 million statewide. In Table 1, two levels of effects are shown: the direct effect, which is the sum of payroll, capital, insurance and maintenance expenditures for each ASC in the state, and the total effect, which is the product of multiplying the direct effect by the multiplier in accordance with the preceding methods discussion. The main finding is that the ASC sector in Texas makes a markedly large contribution to the state's economy, with a multiplier of 1.82. This multiplier implies that for every dollar spent in the ASC sector, \$1.82 worth of economic value is created. The result is a total (direct and indirect) effect of \$1.3 billion. We then add the

² To create a detailed Social Accounting Matrix and multiplier model of a regional economy and then conduct impact analyses with it, two Minnesota IMPLAN Group (MIG) products are required: (1) IMPLAN Professional® 2.0 software and (2) the IMPLAN® data file(s) relating to the Study Area being analyzed. The Study Area may consist of a state, county, sub-county area such as ZIP code areas, or group of any of these areas. IMPLAN Professional® 2.0 is used to create a detailed Social Accounting Matrix for the indicated Study Area, as well as computing the location-specific multipliers. IMPLAN Professional® 2.0 also provides an environment for managing information about your specific project and calculating the economic impacts your project may have on the Study Area. Impact results show how attributes such as employment and income of more than 500 different types of industries in a Study Area are affected.

³ The source for payroll data is the Quarterly Census of Wages and Salaries, Bureau of Labor Statistics (NAICS 621493: "Freestanding Ambulatory Surgical and Emergency Centers")

⁴ Includes websites of Texas ASCs and data aggregation sites, such as www.hospital-data.com.

total tax payments by ASCs, which we estimate will be \$425 million in 2009. The net result is a total statewide ASC impact of \$1.68 billion.

Conclusions

ASCs provide a vital component of the economy in Texas. The ASC industry in Texas is associated with a relatively high multiplier, which results in a large amount of economic activity attributable to ASCs. ASCs have a direct \$1.3 billion impact on the statewide economy. ASC tax payments are expected to be \$425 million in 2009. The net result is a total statewide ASC impact of approximately \$1.7 billion. As the legislature considers new policies aimed at ASCs, policy makers must take into consideration the large economic value generated by ASCs.

Table 1
Impact of Ambulatory Surgery Centers

	2007	2008E	2009E
FTEs	6,956	7,165	7,380
ASCs	374	385	397
Payroll	\$335,847,305	\$345,922,725	\$356,300,406
Payroll per ASC	\$897,987	\$924,927	\$952,675
Wages per FTE	\$48,279	\$49,727	\$51,219
FTEs per ASC	18.6	19.2	19.7
Property Tax	\$93,500,000	\$96,305,000	\$99,194,150
Sales Tax	\$29,920,000	\$30,817,600	\$31,742,128
Payroll tax	\$112,200,000	\$115,566,000	\$119,032,980
Income Tax	\$149,600,000	\$154,088,000	\$158,710,640
Other taxes	\$14,960,000	\$15,408,800	\$15,871,064
Capital Exp	\$187,000,000	\$192,610,000	\$198,388,300
Liability	\$14,960,000	\$15,408,800	\$15,871,064
Maintenance	\$112,200,000	\$115,566,000	\$119,032,980
Total Direct Impact	\$650,007,305	\$669,507,525	\$689,592,750
Multiplier	1.82	1.82	1.82
Direct & Indirect Impact	\$1,183,013,296	\$1,218,503,695	\$1,255,058,806
Taxes Paid	\$400,180,000	\$412,185,400	\$424,550,962
TOTAL IMPACT	\$1,583,193,296	\$1,630,689,095	\$1,679,609,768