

**POTENTIAL ECONOMIC IMPACT OF THE PROPOSED
74-COURT TENNIS CENTER
ON THE ROME MSA (FLOYD COUNTY)**

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The fundamental finding of this study is that the proposed 74-court tennis center will contribute substantial economic impacts in terms of output, value-added, labor income, and employment to Rome's (Floyd County's) economy. The economic impacts will vary based on the number of tournaments. This report provides specific impact estimates for four possible activity levels that could be expected 3 to 5 years after opening, but does not consider the impacts that might arise from hosting large, premier tournaments such as a national championship, annual collegiate invitational, or a Davis Cup match. Also, the estimates should be considered conservative because they only encompass spending by the players and their guests and do not include any impacts arising from spending by exhibitors or sponsoring organizations.

Specifically, the proposed 74-court tennis center will generate the following annual (recurring) impacts for the people who live, work, and do business in Floyd County.

- If 20 tournaments are hosted, \$13.1 million will be spent by players and their guests, generating \$16.1 million in output (sales or gross receipts) and 240 new (net) full- and part-time jobs.
- If 25 tournaments are hosted, \$16.4 million will be spent by players and their guests, generating \$20.1 million in output (sales or gross receipts) and 300 new (net) full- and part-time jobs.
- If 30 tournaments are hosted, \$19.7 million will be spent by players and their guests, generating \$24.1 million in output (sales or gross receipts) and 360 new (net) full- and part-time jobs.
- If 35 tournaments are hosted, \$23.0 million will be spent by players and their guests, generating \$28.1 million in output (sales or gross receipts) and 420 new (net) full- and part-time jobs.

Measured in the simplest and broadest possible terms, the total annual (recurring) economic impact of the proposed 74-court tennis center will vary from \$16.1 million to \$28.1 million on output, depending on the number of tournaments. Output can be thought of as the equivalent of business revenue, sales, or gross receipts. Of the projected impacts, 69 percent is direct spending by the players and their guests (primarily family members); 31 percent is the induced or respending (multiplier) impact. Dividing the total output impacts by direct spending estimates yields an average multiplier value of 1.45. On average, therefore, every dollar of direct spending generates an additional 45 cents for Floyd County's economy.

The value-added impacts range from \$8.4 million for 20 tournaments, to \$14.7 million for 35 tournaments and comprise 52 percent of the output impact, with domestic and foreign trade comprising the remainder 48 percent) of the output impact. Labor income received by residents of Floyd County will range from \$5.3 million for 20 tournaments to \$9.3 million for 35 tournaments, and represents 63 percent of the value-added impact.

The employment impact ranges from 240 full- and part-time jobs for 20 tournaments to 420 full- and part-time jobs for 35 tournaments. On average, \$54,703 in initial spending by players and their guests will support one full- or part-time job. Thus, on average, each job created will owe its existence to spending by 109 players/guests.

METHODOLOGY

For the purposes of this analysis, the annual economic impact of the proposed tennis center is defined to consist of the net changes in regional output, value added, labor income, and employment that are due to initial spending by tournament players and their guests. The total economic impact includes the impact of the initial round of spending and the secondary, or indirect and induced, spending – often referred to as the multiplier effect – created as the initial expenditures are re-spent. Figure 1 provides a schematic representation of impact relationships.

There are two types of secondary spending, indirect spending and induced spending. Indirect spending refers to the changes in inter-industry purchases as a region's industries respond to the additional demands triggered by spending by players and their guests. It consists of the ripples of activity that are created when the players and their guests purchase

goods or services from other industries located in Floyd County. Induced spending is similar to indirect spending except that it refers to the additional demand triggered by spending by households as their income increases due to changes in production. Basically, the induced impact captures the ripples of activity that are created when households spend more due to the increases in their earnings that were generated by the direct and indirect spending.

The sum of the direct, indirect, and induced economic impacts is the total economic impact, which is often expressed in terms of output (sales), value added (gross regional product), income, or employment. Total industry output is gross receipts or sales, plus or minus inventory. It is the value of production by industry (including households) for a given period of time (one year). Total output impacts are the most inclusive and largest, measure of economic impact. Because of their size, output impacts typically are emphasized in economic impact studies and receive much media attention. One problem with output as a measure of economic impact, however, is that it includes the value of inputs produced by other industries, which means that there inevitably is some double counting of economic activity. The other measures of economic impact (value added, labor income, and employment) are free from double counting and provide a much more realistic measure of the true economic impact of tournaments hosted at the proposed tennis center on Rome's regional economy.

Value added (or gross regional product) consists of employee compensation, proprietor income, other property income, and indirect business taxes. Value added is equivalent to gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus intermediate inputs (consumption of goods and services purchased from industries or imported). It is often referred to as the state- or regional-level counterpart of the nation's gross domestic product (GDP).

Income comprises all forms of employment income, including wages, salaries, and proprietors' incomes. It does not include non-wage compensation (e.g., pensions and health insurance), transfer payments (e.g., welfare or Social Security benefits), or unearned income (e.g., dividends, interest, and rent). Employment includes total wage and salary employees as well as self-employed individuals. It includes both full- and part-time jobs and is measured in annual average jobs. Employment therefore is expressed as the full- and part-time jobs count and not as full-time equivalents.

The definition of Rome's regional economy was based on the standard metropolitan and micropolitan statistical area definitions released by the Executive Office of the President, Office of Management and Budget, and consists of only Floyd County. The geographic area of the regional model takes into consideration population and commuting patterns from the U.S. Bureau of the Census. The effects of expenditures that go to persons, businesses, or governments located outside Floyd County are not included in the value added, labor income, and employment impact estimates.

The multiplier concept is common to virtually all economic impact studies. Multipliers measure the response of the local economy to a change in demand or production. In essence, multipliers capture the impact of the initial round of spending (for final consumption) plus the impacts generated by successive rounds of re-spending of those initial dollars. The magnitude of a particular multiplier depends upon what proportion of each dollar spent leaves the region during each round of spending. Multipliers therefore are unique to the region and to the industry that receives the initial round of spending. Economic multipliers are model-based and dependent on the specific spending patterns of the industry and applicable regional economies.

Figure 2 illustrates the successive rounds of spending that might take place if a person buys an item locally. Assume that the amount spent is \$100 and that the appropriate regional output multiplier is 2.0. The initial injection of spending to the region is \$100, which creates a direct economic impact of \$100 to the regional economy. Of that \$100, only \$50 is re-spent locally; the rest flows out of the region through non-local taxes, non-local purchases, and income transfers. After the first round of re-spending, the total economic impact to the region is \$150. During the second round of re-spending, \$25 is re-spent locally and \$25 leaks out of the region, a 50 percent leakage. Now, the total economic impact to the region is \$175. After seven rounds of re-spending, less than one dollar remains in the local economy, but the total economic impact has reached almost \$200. The induced (multiplier effect) impact to the region (\$100) equals the total impact (\$200) minus the direct impact (\$100).

The multiplier traces the flows of re-spending that take place throughout the region until the initial dollars have completely leaked from it to other regions. Obviously, multiplier effects within large, self-sufficient areas are likely to be larger than those in small, rural, or specialized areas that are less able to capture spending for necessary goods and services. Multiplier effects also vary greatly from industry to industry, but in general, the greater the interaction with the local economy, the larger the multiplier for that industry. For example, personal services, business services, and entertainment industries have intricate relationships with local supporting industries, and therefore have relatively high

multiplier values. Conversely, electric, gas, and sanitary services usually are less intertwined with local supporting industries, and their multipliers are lower.

Type SAM (Social Accounting) multipliers from the IMPLAN modeling system were used to estimate the economic impacts associated with all categories of spending. Type SAM multipliers capture the original expenditures resulting from the impact, the indirect effects of industries buying from industries, and the induced effects of household expenditures based on information in the social account matrix. The multipliers account for Social Security and income tax leakage, institutional savings, commuting, and inter-institutional transfers, and people-to-people transfers.

Wherever appropriate, the IMPLAN software applied margins to convert purchaser prices to producer prices. In input-output models, all expenditures are in terms of producer prices, which allow all spending to be allocated to the industries that actually produce the goods or services. The margins are derived from U.S. Bureau of Economic Analysis data. The margins used differ by the type of consumer. For example, households pay transportation, wholesale, and the full retail margin. In contrast, large organizations may pay little or no retail margin as they typically have more buying power than an individual. Also, some sectors of the model do not have margins. For example, because there are no wholesalers or retailers involved when someone rents a room, hotels and other lodging do not have margins.

The model's default estimates of the local economy's regional purchase coefficients were used to derive the ratio of locally purchased to imported goods. The regional purchase coefficient represents the proportion of the total demands for a given commodity that is supplied by the region to itself. The regional purchase coefficients were estimated with an econometric equation that predicts local purchases based on each region's unique characteristics. In addition, the entire analysis was conducted using the full range of industrial sectors in order to avoid aggregation bias.

Estimating the economic impact of the proposed 70-court tennis center on its regional economies involved several basic steps. First, estimated spending by players and their guests was calculated from data obtained from the United States Tennis Association (USTA). Second, these expenditures were allocated to industrial sectors recognized by the economic impact modeling system. Third, the IMPLAN Professional Social Accounting and Impact Analysis software was used to build a regional economic model specific to Floyd County. A more detailed discussion of the IMPLAN modeling system, including its structure, methods, and use, can be found in *IMPLAN Professional Version 2.0: Users Guide, Analysis Guide, and Data Guide* (www.IMPLAN.com). Once the economic model was generated, the total economic impacts of all categories of initial spending were estimated.

Spending by players and their guests was estimated for four possible activity levels that could be expected 3 to 5 years after the opening of the tennis center: 20 tournaments, 25 tournaments, 30 tournaments, and 35 tournaments. The spending estimates were based primarily on data obtained from the USTA. The Selig Center assumed that each tournament consists of 620 players and 607 guests, which are the average numbers reported by the USTA for the fourteen Southern tournaments covered in the USTA's Economic Impact Study (2006). The total number of attendees per tournament therefore was 1,227.

The USTA's Economic Impact Study provided high and low estimates (examples) of expenditures per person per stay of \$500 (\$ 2006) and \$1,000 (\$ 2006). The low estimate (\$500) was assumed to be more applicable to the proposed Rome tennis center. The \$500 estimate was converted from 2006 dollars into constant (inflation-adjusted) 2009 dollars based on travel price indices obtained from the Travel Industry Association of America (TIA). When expressed in constant 2009 dollars the low estimate is \$535. This level of expenditures per stay was allocated to expenditure categories by the Selig Center based on data obtained from the IACVB's *ExPact 2004 Convention Expenditures and Impact Study* (revised in February 2005), the updated year-end-2005 spending figures for ExPact 2005, and other sources. The IACVB is currently known as the Destination Marketing Association International (DMA). As Table 3 shows, expenditures per person per stay of \$535 amount to expenditures per person per day of \$152.86 (assuming the 3.5 night stay reported by the USTA). The estimate of \$152.86 per night is 23 percent higher than the \$124 per person per night estimate provided by the Georgia Department of Economic Development for a typical sporting event, which reflects the upscale demographics of tennis players/guests relative to other sports. For example, a survey posted by tennis.com shows that the median household income of tennis players/consumers is \$80,257 versus \$73,997 for other sports.

Total initial spending was estimated by multiplying expenditures per stay (\$535) by the number of attendees per tournament (1,227) by the number of tournaments.

RESULTS

The estimates of initial spending vary with the activity levels, ranging from \$13.1 million for 20 tournaments, to \$16.4 million for 25 tournaments, to \$19.7 million for 30 tournaments, and to \$23 million for 35 tournaments. Due to leakages associated with retail purchases and gasoline, the estimates of direct spending are slightly (16 percent) lower than initial spending, however. Estimates of both initial spending and direct spending are reported in Table 1.

Total Output Impact

An IMPLAN model of Rome's regional economy was used to calculate the total output impact. Output impacts for are reported in Table 1. The output impact includes the impact of the first round of spending and the impacts generated by the re-spending of these amounts – the multiplier effect.

The output impact of the proposed tennis center will vary depending on the number of tournaments: from \$16.1 million for 20 tournaments, to \$20.1 million for 25 tournaments, to \$24.1 million for 30 tournaments, and to \$28.1 million for 35 tournaments. Regardless of the activity level (number of tournaments) the output impact will be 1.45 times greater than direct spending, but only 1.22 times greater than initial spending. The Rome MSA is small, so there is a high level of leakage. That is why the multiplier values are relatively low. Leakages are any payments made to imports or value-added sectors, which do not in turn re-spend the dollars within Floyd County. The output impacts are reported in the second column of Table 1.

Total Value-Added Impact

Because value-added impacts exclude expenditures related to foreign and domestic trade, they provide a much more accurate measure of the actual economic benefits flowing to businesses and households in a region than the more inclusive output impacts.

The proposed tennis center will generate a value added impact ranging from \$8.4 million for 20 tournaments, to \$10.5 million for 25 tournaments, to \$12.6 million for 30 tournaments, and to \$14.7 million for 35 tournaments. The value-added impact will equal 64 percent of initial spending. The value-added impacts are reported in Table 2.

Labor Income Impacts

The IMPLAN model also was used to calculate impacts in terms of labor income. The proposed tennis center will generate a labor income impact of \$5.3 million for 20 tournaments, \$6.7 million for 25 tournaments, \$8 million for 30 tournaments, and \$9.3 million for 35 tournaments. Labor income impacts will equal 63 percent of their respective value-added impacts. Labor income impacts are reported in Table 2.

Employment Impacts

The potential economic impact of the proposed tennis center is most easily understood in terms of its effects on employment. The proposed tennis center will generate an employment impact of 240 full- and part-time jobs for 20 tournaments, or 300 full- and part-time jobs for 25 tournaments, or 360 full- and part-time jobs for 30 tournaments, or 420 full- and part-time jobs for 35 tournaments. Employment impacts are reported in Table 2.

LIMITATIONS

Several types of short-term expenditures were not estimated, including spending by exhibitors and sponsors, but perhaps the greatest limitation is that there was no attempt to evaluate the potential to attract premier tournaments such as a national championship, annual collegiate invitational, or a Davis Cup match. In addition, programs, events, and facilities may be available to the general public and provide intangible benefits to Floyd County by improving residents' quality of life.

CONCLUSIONS

In the simplest terms, the collective or rolled-up annual (recurring) economic impact of the proposed 74-court tennis center on the Rome MSA will range from \$16.1 million to \$28.1 million, depending on the number of tournaments hosted. This amount represents the impact of spending by the players and their guests.

Although this study estimates from \$16.1 million to \$28.1 million in annual economic impact on the Rome MSA, the actual annual impact is likely to be much higher. The study's limited scope did not include the impacts of spending by exhibitors or sponsors. Also, the impact estimates do not factor in the hosting of a premier national tournament, which is certainly a realistic goal for a 74-court facility. ■

FIGURE 1

**Schematic Representation
of Impact Relationships**

Direct
Expenditures



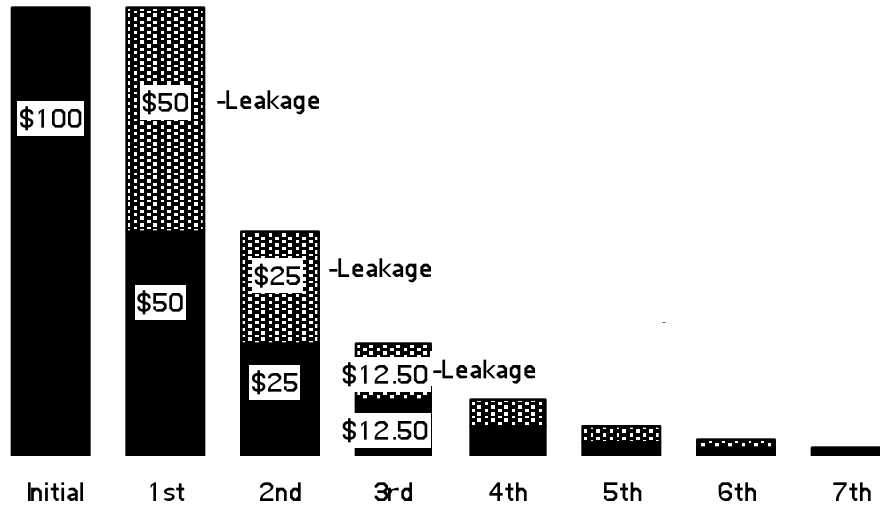
Indirect & Induced Impacts
(Multiplier Effects)



Total Economic Impact

FIGURE 2

How Multipliers Capture the Impact of Re-spending Initial Impacts
If the Output Multiplier Equals 2.0



Initial Direct or Indirect Impact:	\$100	
First Round of Re-spending:	\$50 respent locally,	\$50 leakage*
Second Round of Re-spending:	\$25 respent locally,	\$25 leakage
Third Round of Re-spending:	\$12.50 respent locally;	\$12.50 leakage
Fourth Round of Re-spending:	\$6.25 respent locally;	\$6.25 leakage
Fifth Round of Re-spending:	\$3.12 respent locally;	\$3.12 leakage
Sixth Round of Re-spending:	\$1.56 respent locally;	\$1.56 leakage
Seventh Round of Re-spending:	\$.78 respent locally;	\$.78 leakage

Total Economic Impact: \$200 Total Leakage: \$100

*Leakage indicates amounts spent outside area and not recirculated locally.

TABLE 1

**Potential Economic Impacts of the
Proposed 74-Court Rome Tennis Center on Output
(\$ 2009)**

Number of Tournaments	Initial Spending by Players & Guests	Direct Spending by Players & Guests	Output Multiplier	Output Impact
20	13,128,900	11,089,365	1.45	16,074,323
25	16,411,125	13,861,705	1.45	20,092,904
30	19,693,350	16,634,047	1.45	24,111,485
35	22,975,575	19,406,389	1.45	28,130,068

Notes: The impact estimates reflect four possible activity levels that could be expected 3 to 5 years after opening, but do not include the impacts that might arise from hosting large, premier tournaments such as a national championship, annual collegiate invitational, or a Davis Cup match. Also, the estimates do not include any impacts arising from spending by exhibitors or sponsoring organizations.

Initial spending estimates were produced by the Selig Center based primarily on data obtained from the United States Tennis Association (USTA). The Selig Center assumes that each tournament consists of 620 players and 607 guests, which are the average reported figures for the fourteen tournaments covered by the USTA's Economic Impact Study (2006).

Direct spending equals initial spending minus producer margins paid to manufacturers for retail and gasoline expenditures. Output refers to the value of total production, including domestic and foreign trade. The impact of spending on output was estimated using the IMPLAN system, Type SAM multipliers, provided by MIG, Inc. All dollar amounts are expressed in constant 2009 dollars.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), December 2009.

TABLE 2

Potential Economic Impacts of the
Proposed 74-Court Rome Tennis Center
on Value Added, Labor Income, and Employment
(\$ 2009/full- and part-time jobs)

Number of Tournaments	Value Added Impact	Labor Income Impact	Employment Impact (full- and part-time jobs)
20	8,421,915	5,341,253	240
25	10,527,393	6,676,566	300
30	12,632,871	8,011,879	360
35	14,738,351	9,347,193	420

Notes: The impact estimates reflect four possible activity levels that could be expected 3 to 5 years after opening, but do not include the impacts that might arise from hosting large, premier tournaments such as a national championship, annual collegiate invitational, or a Davis Cup match. Also, the estimates do not include any impacts arising from spending by exhibitors or sponsoring organizations.

Value added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs. The impacts of spending on value added, labor income, and employment are estimated using the IMPLAN system, Type SAM multipliers, provided by MIG, Inc. All dollar amounts are expressed in constant 2009 dollars.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), December 2009.

TABLE 3

**Players and Guests: Expenditures per Person
(\$ 2009)**

Expenditure Class	Expenditures per Stay	Expenditures per Day
Lodging	197.10	56.31
Food and Beverage	141.28	40.37
Retail	102.03	29.15
Entertainment/Recreation	29.57	8.45
Gas/Parking/Other	31.22	8.92
Local Transportation/Car Rental	33.80	9.66
Total	535.00	152.86

Notes: Expenditures per stay (\$500 for a 3.5 night stay) were obtained from USTA's 2006 Economic Impact Study, but for analytical purposes this amount was converted into constant (inflation-adjusted) 2009 dollars (\$535 for a 3.5 night stay) based on travel price indices obtained from the Travel Industry Association of America (TIA). It should be noted that \$500 (or \$535 when expressed in \$ 2009) represents the smallest amount (example) of per person spending provided by the USTA. The highest amount (example) of per person spending provided was \$1,000. Expenditures were allocated to expenditure categories by the Selig Center based on data obtained from IACVB's *ExPact2004 Convention Expenditure and Impact Study* (revised in February 2005), the updated year-end 2005 spending figures for ExPact2005 as well as other sources. The IACVB is currently known as the Destination Marketing Association International (DMA).

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), December 2009.