

## Estimating the Economic and Fiscal Impacts of the New York Sports and Convention Center

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### SUMMARY

Many New Yorkers have raised questions about the New York Jets' estimates of the jobs and tax revenues that would be generated by the proposed New York Sports and Convention Center to be located on Manhattan's far West Side. IBO has undertaken its own study of the economic and fiscal impacts of the proposed sports and convention complex and our findings are presented in the July 1, 2004 edition of *Inside the Budget*.

This background paper describes the methodology and assumptions used in our analysis. In developing our estimates, IBO had access to data and estimates used in an impact study that was commissioned by the Jets. We have largely used that study's structure and definitions of the various types of events that could occur at the facility, although we used a different methodology to estimate how much economic activity would be induced elsewhere in the economy. For each type of event that the facility would host, we estimate

- the number of events
- the number and types of visitors expected to attend (overnight visitors, regional day-trippers, and city residents)
- and their spending on goods and services such as transportation, lodging, food, and other retail purchases inside and outside the new facility.

We then use these estimates to project the number and type of jobs and amount of tax revenue that could be generated if the facility is built.

Throughout this background paper, IBO compares and contrasts our assumptions with those of the Jets and explains the differences. In addition, IBO has constructed three different scenarios for activity at the sports and convention center—most optimistic, less convention activity, and no convention activity—and presents the related fiscal and economic impacts for each. IBO's three scenarios are detailed alongside the Jets' estimates.

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## VISITOR SPENDING

IBO's analysis of visitors' expenditures divided the events to be held at the proposed facility into the same four categories used in the Jets own study—stadium events, expos, "mega" events, and plenary sessions—and estimated the direct output associated with each. IBO's \$206 million visitor spending estimate is the aggregation of the total annual spending from each of these four event categories. The following sections detail the assumptions IBO used in developing the estimate for each category. All the estimates used in the IBO analysis assume that the facility is fully operational.

**Stadium Impact.** Stadium events are defined as New York Jets football games and other regional sports or entertainment events using the original stadium configuration. The proposed facility can accommodate 75,000 attendees in the stadium configuration. The Jets estimated that the proposed facility would host 17 stadium events each year, including two exhibition football games, eight regular season games, and seven other regional events (such as college football games and concerts). The Jets expect that the average attendance at football games will be 75,000 and the average attendance for the regional events will be 47,000, creating a combined average attendance of 68,820. IBO used these assumptions yielding a total of 1.2 million stadium event attendees per year.

Because of the regional nature of a football franchise's fan base, both the Jets and IBO assumed that visitors for stadium events would be split evenly between local residents and regional daytrip visitors. Local residents' spending at the games was not counted as an incremental benefit of the facility's construction, as we assumed that attendance at a stadium event would represent a substitution for some other local activity. The spending of regional daytrip visitors was, however, included in both the Jets' and the IBO's analyses.

IBO estimates that the regional daytrip visitors will generate an annual \$23 million in new visitor expenditures. This figure represents estimated regional daytrip visitor spending on transportation in the city, including expenditures on mass transportation (subways, buses), taxis, and parking lots. IBO used the Jets' estimate of \$30 in transportation expenditures per person per event. Visitors' spending on food and beverage, team merchandise, and event tickets were accounted for in our estimate of the operational revenue generated by the proposed facility.

**Expositions.** Exposition events are defined as tradeshow, conventions, and consumer shows. The design of the proposed

facility includes features—most notably a retractable roof and removable seating—that would allow it to be used for expositions year-round. When in the exposition configuration, the proposed facility would be able to accommodate shows requiring up to 180,000 square feet of exposition space and/or 30,000 square feet of meeting room space.

IBO assumes that as an optimistic scenario, the proposed facility would attract 20 expositions with an average attendance of nearly 4,400 per show, once the facility is fully operational. The Jets' estimate was significantly higher, at 35 shows annually and 8,427 attendees per show. IBO analyzed comparable venue data gathered by Ernst & Young for the New York Jets as well as data from *Tradeshow Week*, a publication designed for convention professionals. We considered information on the number of shows of appropriate size needing space each year, the competitive market conditions resulting from the current and planned supply of convention center capacity across the country, and New York City's high costs for exhibitors and visitors, which are somewhat offset by the city's attractiveness as a destination city. Another factor is the overlap of the convention season with the football season. The Jets have received a commitment from the National Football League to provide a more predictable schedule for the team during the prime convention season from mid-September through mid-November. Remaining uncertainty may still make it difficult to book many multi-day events during the rest of the football season.

Although the Jets' report provides attendance data for shows at 15 facilities labeled as "comparable venues," their estimate of 8,427 average attendees is derived from other sources. The Jets have indicated that their report used data on existing city venues and the Navy Pier in Chicago, although there is insufficient detail provided to confirm their results. Much of the material on events currently in the city relates to art and antique shows that draw more of a local audience than the trade shows and conventions the Jets are counting on scheduling. Moreover, analysis of events at Chicago's Navy Pier indicate an average attendance lower than IBO's projection of 4,400.

IBO estimates that 70 percent of the exhibitions would be new to New York City (14 shows under our baseline case), while the remaining 30 percent would represent expositions currently coming to alternate New York City venues. The Jets also assumed that some of the expositions hosted by the new facility would be shifted from other city venues.

Using data collected by the International Association of

Convention and Visitors' Bureaus (IACVB), both the Jets and IBO estimated that 18 percent of exposition attendees would be local residents, 27 percent would be regional daytrip visitors, and 55 percent would be overnight visitors. As with stadium event visitors, IBO assumed that expenditures by regional daytrip visitors and overnight visitors would represent new spending as a result of the facility's construction, but local residents' spending would not, as it would simply represent a substitution for other local events and not generate any new tax revenues for either the city or the state.

To estimate the total incremental impact the expositions were likely to have on the city and state, IBO first estimated daily expenditures for each visitor type. Using data from NYC & Company, the IACVB, and PricewaterhouseCoopers, IBO estimated exposition visitors' daily expenditures on transportation, lodging, food and beverage, shopping, entertainment, and miscellaneous, adjusting the estimates to reflect the different characteristics of regional visitors and overnight visitors. IBO estimated that, on average, overnight exposition event attendees would spend \$295 per day, while regional daytrip visitors would spend \$80 per day.

IBO assumed that regional daytrip visitors' spending would most closely resemble that of commuters. As a result, IBO assumed that regional daytrip visitors would not remain in the city at the end of each day, eliminating the need for lodging or entertainment expenditures. Further, IBO projected that although these regional visitors would be commuting to and from the city each day, they would actually spend less than the overnight visitors on transportation. The explanation for this differential is three-fold: first, IBO assumed that daytrip visitors' only transportation costs would be the daily commute to and from the city; secondly, IBO assumed regional visitors would rely heavily on public transportation; and finally, IBO

estimated that even though many expositions provide free transportation to and from the event to overnight visitors (generally, a shuttle bus from the hotel to the convention site), overnight visitors would spend more on taxis in the evening.

Although many conventions include several meals with the cost of registration, IBO estimated that, because attendees at expositions often have a professional focus, both regional and overnight visitors would participate in business/networking luncheons. IBO also included business dinners in the food and beverage estimate for overnight visitors.

Assuming that each exposition is open to visitors for an average of three days, IBO estimated that under the baseline assumption of 20 exhibitions, the proposed facility would create \$102 million per year in new exposition visitor spending for the 14 shows the facility will attract to the city. This figure does not include association and exhibitor expenditures, which are instead accounted for in IBO's analysis of the proposed facility's operations.

*Mega Events.* Mega events are large national events staged in the arena or stadium configuration. Examples of potential mega events are the National Collegiate Athletic Association Final Four basketball tournament, college football bowls, and large scale concerts. Although the Super Bowl might also be considered a mega event, neither the Jets nor IBO included the impacts of a Super Bowl in their analysis of the average annual impact of mega events.

IBO used the Jets' estimate that the facility would attract two mega events each year, each with an average attendance of 65,000. Because New York City does not currently host any of these types of events, IBO assumed that the revenue generated by any of these mega events should be attributed entirely to the proposed facility.

The Jets' analysis assumed that mega events would span three days with overnight visitors staying in town for three nights. While some mega events would likely last that long, it seems reasonable to assume that at least some would last only one day, with one overnight stay by visitors from outside the region. We therefore used an average length of two days with two overnight stays for the two mega events expected each year. IBO projects that the total incremental expenditures attributable to mega events held at the facility would total \$50 million annually.

As with the expositions, IBO developed two separate estimates for visitor expenditures: one for regional daytrip visitors and

| <b>Estimated Average Daily Expenditures Per Exposition Visitor</b> |                          |                   |
|--|--------------------------|-------------------|
|  | Regional Daytrip Visitor | Overnight Visitor |
| Transportation   | \$10                     | \$21              |
| Lodging  | 0                        | 122               |
| Food and Beverage  | 40                       | 100               |
| Shopping   | 25                       | 25                |
| Entertainment  | 0                        | 23                |
| Other  | 5                        | 5                 |
| <b>Total</b>   | <b>\$80</b>              | <b>\$295</b>      |

SOURCES: IBO, International Association of Convention and Visitors' Bureaus, NYC & Co., PricewaterhouseCoopers.  
NOTE: Overnight visitor lodging assumes \$162 per room-night and an average of 1.3 visitors per room.

one for overnight visitors; expenditures by local residents were once again excluded from the analysis. IBO used the Jets' assumptions on mega event attendee composition: 65 percent overnight visitors, 18 percent regional daytrip visitors, and 18 percent local residents. IBO divided the mega event visitor expenditure estimates into the same subgroups used for expositions: transportation, lodging, food and beverage, shopping, entertainment, and miscellaneous. IBO assumed that regional daytrip visitors to mega events would mirror the spending habits of regional daytrip exposition visitors, but IBO's estimates for overnight mega event visitors' expenditures differed from the spending assumptions made for overnight exposition visitors.

Specifically, IBO estimated that, on average, overnight mega event attendees would spend more on transportation than their counterparts attending expositions, as many expositions include transportation to and from the hotel with the price of registration. Food and beverage expenditures for overnight mega events were estimated at \$40 per visitor per day, a figure significantly lower than the \$100 per day calculated for overnight exposition visitors. The principal reason for this difference lies in the nature of expositions and mega events: attendees at expositions often have a professional agenda, leading to more business and networking meals. Mega events, on the other hand, are largely sporting events, and IBO assumed that attendees would be more likely to dine at casual, moderately priced establishments. In addition, IBO assumed that many mega event attendees would eat at least one meal at the facility, expenditures which we accounted for in the facility operations estimates. Estimates on daily lodging expenditures, shopping, entertainment, and other visitor spending are the same as those projected for overnight exposition visitors.

**Plenary Sessions.** Plenary sessions are events that require large seating capacity. The most common example of a plenary session is the keynote address delivered at many professional conventions and tradeshows. Aside from the Javits center,

which does not generally book plenary sessions, there are no venues currently operating in New York City capable of accommodating a 40,000 person plenary session. As a result, although most plenary sessions represent only one aspect of a tradeshow or convention, IBO attributed the entire incremental benefits of tradeshows and conventions to the plenary sessions rather than the facility hosting the actual exposition, as expositions requiring plenary sessions most likely would not have come to New York City without the space offered by the new facility. The Jets assume three such events each year while IBO assumes two.

The Jets' analysis assumed that plenary session visitors will stay an average of three days, corresponding to the average length of an exposition event. Analysts considering the economic impact of the Javits center will need to be careful to avoid double-counting the impact of these new events. While this assumption seems reasonable for plenary sessions associated with conventions, evidence from other cities with facilities capable of hosting such sessions indicate that they are also used for stand-alone, single-day events such as religious assemblies. Therefore, IBO's estimates assume that the average stay of plenary session visitors will be 2.75 days. IBO estimates that the total incremental expenditures attributable to plenary sessions held at the facility would total \$32 million annually.

Once again, IBO divided visitor expenditures into subgroups: transportation, lodging, food and beverage, shopping, entertainment, and miscellaneous. IBO assumed that regional daytrip visitors to plenary sessions would mirror the spending habits of regional daytrip exposition visitors, but IBO's estimates for expenditures by overnight plenary session attendees differed slightly from the spending assumptions made for other types of overnight visitors. Because plenary session visitors most closely resemble exposition visitors, the projections for overnight plenary session visitors remained the same as those IBO made for overnight exposition visitors for all subcategories except food and beverage. IBO estimates that overnight exposition visitors will spend \$100 per day on food and beverage, whereas overnight plenary session visitors will spend \$128 per day on food and beverage. This figure represents the average expected spending for plenary session visitors attending conventions as well as those attending stand-alone events. The difference in the exposition and plenary session food and beverage figures stems from the assumption that plenary sessions attached to expositions are often part of conventions sponsored by professional associations and occur in an environment promoting more networking than the average nonprofessional association exposition. For these plenary

| <b>Estimated Average Daily Expenditures Per Mega Event Visitor</b> |                          |                   |
|--|--------------------------|-------------------|
|  | Regional Daytrip Visitor | Overnight Visitor |
| Transportation   | \$10                     | \$42              |
| Lodging  | 0                        | 122               |
| Food and Beverage  | 40                       | 40                |
| Shopping   | 25                       | 25                |
| Entertainment  | 0                        | 23                |
| Other  | 5                        | 5                 |
| <b>Total Daily Expenditures</b>                                    | <b>\$80</b>              | <b>\$257</b>      |

SOURCES: IBO, PricewaterhouseCooper.

### Estimated Average Daily Expenditures Per Plenary

#### Session Visitor

|                                 | Regional Daytrip<br>Visitor | Overnight<br>Visitor |
|---------------------------------|-----------------------------|----------------------|
| Transportation                  | \$10                        | \$21                 |
| Lodging                         | 0                           | 122                  |
| Food and Beverage               | 40                          | 128                  |
| Shopping                        | 25                          | 25                   |
| Entertainment                   | 0                           | 23                   |
| Other                           | 5                           | 5                    |
| <b>Total Daily Expenditures</b> | <b>\$80</b>                 | <b>\$335</b>         |

SOURCES: IBO, PriceWaterhouse Cooper.

the players' salaries in the analysis of the fiscal impact of stadium event operations.

IBO used an average ticket cost for stadium events of \$66, based on data supplied in the Jets' report. As discussed in the section on visitors' expenditure estimates, both the Jets and IBO assumed that the proposed facility would host 17 stadium events with average attendance of 68,820 per event, for a total of 1.2 million stadium event attendees. Using these figures, IBO estimates that event ticket sales would gross \$77 million annually.

session attendees, we project average daily spending on food and beverages of \$140. Attendees to stand-alone events are expected to more closely resemble mega-event visitors in their food and beverage expenditures. As a result, IBO estimates these stand-alone attendees will spend \$40 per day on food and beverages. Using data from comparable venues on the mix of stand-alone plenary sessions to plenary sessions held in conjunction with expositions, IBO estimates that the blended average spending on food and beverage for plenary session visitors is \$128 per day.

### FACILITY OPERATIONS

In addition to generating incremental tax revenues for the city and state through visitor expenditures, the new multi-use facility also would generate tax revenues through the facility's operation. As with the estimate of visitors' expenditures, IBO's analysis of facility operations expenditures is divided into four event categories: stadium events, expositions, mega events, and plenary sessions. The Jets' analysis also estimated facility operations expenditures for stadium events and expositions, but it does not include operations estimates for plenary sessions and mega events.

IBO's \$123 million facility operations estimate is the aggregation of the total annual spending from each of the four event categories. The following sections detail the assumptions IBO used in developing the estimate for each category. All the estimates used in the IBO analysis assume that the facility is fully operational.

**Stadium Impact.** To calculate the impact of stadium events on operational expenditures, IBO looked at revenues generated through event ticket sales as well as sales made within the facility on food, beverages, and retail items, such as team jerseys. IBO also included the visiting team's expenditures on lodging, food, and beverages as well as the prorated share of

IBO used the Jets' estimates of total visitor expenditures within the stadium, assuming visitor expenditures of \$16.2 million on food and beverages and \$4 million on souvenirs and clothing items annually.

Based on their own expenditures while on the road, the Jets expect each visiting team to spend \$23,500 on food, beverages, and lodging while in New York City. Using these figures, IBO estimates visiting teams will spend \$235,000 annually on food, beverages, and lodging.

Combining all of these categories of expenditures, IBO estimates that facility operations for stadium events will generate \$97 million in business receipts each year the facility is fully operational.

**Exposition Operations.** To estimate the total incremental impact expositions are likely to have on the city and state, IBO estimated daily visitor expenditures as well as exposition expenditures related to the operation of the facility. An explanation of IBO's assumptions on visitor expenditures can be found earlier in this paper.

In calculating facility operations expenditures for expositions, IBO used data from the IACVB to estimate associations' and exhibitors' daily operational expenditures. For the purposes of our analysis, an association is defined as the organization sponsoring the exposition, while an exhibitor is a company or organization sponsoring a booth at an exposition.

IBO divided association expenditures into seven categories—food and beverage, exhibition space fees paid to the facility, staff member living expenses, equipment rentals, services hired, space fees for meeting rooms, and miscellaneous—and estimated the average association expenditure per exposition attendee for each category. IBO estimates that for each exposition, associations will spend \$11 per visitor per day.

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Specifically, IBO projects that associations will spend \$5 on food and beverage per visitor per day and \$1 per visitor per day for each of the remaining six categories.

As noted earlier in this paper, IBO estimates that under the baseline scenario, 14 of the projected 20 expositions to be held at the new facility (70 percent) would be entirely new to New York City, while the remaining six exhibitions would represent shows currently coming to alternate venues in the city. IBO therefore projects that 70 percent of all association expenditures would be attributable to the construction of the new facility. IBO did not make any distinctions between local, regional, or overnight visitors, as associations' spending would not differ depending on the type of attendee. Assuming that each exposition is open to visitors for an average of three days, IBO estimates that the proposed facility would generate approximately \$8.7 million annually in new association expenditures.

IBO's estimates of exhibitor expenditures at the events new to the city were developed through analysis of comparable venue data gathered by PricewaterhouseCoopers for the New York Jets as well as data published by the IACVB. As with the association expenditures, IBO divided exhibitor expenditures into categories—food and beverage, hospitality suites, advertising in the event city, additional meeting rooms, equipment rental, services hired, vendor services, and miscellaneous—and used these figures to estimate exhibitors' average daily expenditures. IBO estimates that exhibitors will spend \$304 per exposition per day. Once again, IBO assumed that only 70 percent of the expositions would be entirely new to the city and that expositions would last an average of three days. Using the Jets' projection of 242 exhibitors per show, IBO estimates incremental exhibitor expenditures attributable to the new facility would be nearly \$4 million annually.

*Mega Events.* Because mega events resemble stadium events, IBO's analysis of the impact of mega events on operational expenditures mirrors that used for stadium events. Once again, IBO looked at event tickets as well as food, beverage and retail sales made within the facility. IBO did not attempt to account for performer salaries prorated for their time in the city. We estimate about \$11 million per year in business receipts from mega events, of which \$7 million would be generated by ticket sales.

*Plenary Sessions.* Plenary sessions are assumed to be associated with big conventions that need large seating capacity for one or more sessions. Because such events are unlikely to be trade shows, IBO's analysis only used association costs to calculate

plenary session operation expenditures. IBO used the same association expenditure estimate of \$11 per visitor per day as was used for the expositions.

As with the visitor expenditure estimates for plenary sessions, IBO attributed the entire incremental benefits of the convention to the multi-use facility, as the expositions requiring plenary sessions most likely would not have come to New York City without the space offered by the new facility. Assuming each exposition is open to visitors for an average of 2.75 days, IBO estimates that the proposed facility would generate \$1.6 million annually in new association expenditures related to plenary sessions.

## **ECONOMIC IMPACT**

Using our assumption of 20 expositions, IBO estimates that the new facility would result in \$519 million in new economic output in the city. This consists of direct and indirect output. Direct output is the value of the spending by visitors at the facility and elsewhere in the city as well as operations of the facility itself. Indirect output results from spending in the broader city economy by employees and owners of the facility, restaurants and hotels, and their suppliers.

IBO estimates that under the baseline scenario, the annual direct economic output associated with the facility would be \$314 million; the Jets estimated \$411 million. Differences in per visitor spending patterns—some IBO estimates are higher, some lower—and the number of events account for most of the difference. However, a portion (\$14 million) is due to the fact that IBO identified only the local valued-added on retail sales—the retailers' mark-up or margin—as the retail trade industry contribution to new local output, whereas the Jets' study appears to have included the full sales price of items sold by retailers in local output.

In estimating the secondary economic impacts of the stadium, IBO used (with a number of modifications) the New York City output, earnings, and employment multipliers provided by the Regional Input-Output Modeling System (RIMS II) produced by the Bureau of Economic Analysis. IBO also extracted rough estimates of the portions of new output comprising value added, which is equal (in sum) to gross product, the usual yardstick for measuring the size of an economy. Besides labor earnings, value added includes capital consumption, taxes on production, and the operating surplus of enterprise—the last of which includes taxable corporate profits.

Adding in the secondary economic output brings IBO's

| <b>New York City Industry Impacts of Proposed West Side Jets Stadium</b>     |                       |                          |                       |              |                                |                                  |
|--|-----------------------|--------------------------|-----------------------|--------------|--------------------------------|----------------------------------|
| <i>Baseline estimate; includes secondary impacts; dollars in millions</i>    |                       |                          |                       |              |                                |                                  |
| Industry   | Total industry output | Value added <sup>1</sup> | Earnings <sup>2</sup> | Employment   | Resident earnings <sup>3</sup> | Resident employment <sup>3</sup> |
| Construction   | \$3.8                 | \$1.7                    | \$0.7                 | 17           | \$0.4                          | 12                               |
| Food and kindred products and tobacco products                               | 4.6                   | 1.6                      | 0.5                   | 11.9         | 0.3                            | 9.4                              |
| Apparel and other textile products   | 1.1                   | 0.4                      | 0.2                   | 4.1          | 0.1                            | 3.2                              |
| Printing and publishing  | 5.2                   | 3.1                      | 1.0                   | 17.4         | 0.6                            | 13.7                             |
| Chemicals and allied products and petroleum and coal products                | 1.8                   | 0.7                      | 0.2                   | 2            | 0.1                            | 1                                |
| Transportation   | 37.8                  | 22.5                     | 14.1                  | 201          | 8.4                            | 141                              |
| Communication  | 9.6                   | 4.8                      | 1.4                   | 16           | 0.8                            | 11                               |
| Electric, gas, and sanitary services   | 5.5                   | 2.6                      | 0.6                   | 7            | 0.3                            | 5                                |
| Wholesale trade  | 10.2                  | 7.0                      | 2.6                   | 47           | 1.8                            | 39                               |
| Retail trade   | 23.2                  | 15.3                     | 7.2                   | 214          | 5.0                            | 177                              |
| Depository and nondepository institutions and security and commodity brokers | 20.1                  | 11.3                     | 5.0                   | 16           | 2.9                            | 12                               |
| Insurance  | 7.0                   | 2.9                      | 1.5                   | 14           | 0.9                            | 10                               |
| Real estate  | 40.4                  | 30.4                     | 1.4                   | 24           | 0.8                            | 17                               |
| Hotels and other lodging places, amusement and recreation services           | 189.0                 | 108.0                    | 52.4                  | 1,121        | 23.8                           | 920                              |
| Personal services  | 1.5                   | 0.9                      | 0.5                   | 29           | 0.4                            | 24                               |
| Business services  | 40.9                  | 27.6                     | 15.2                  | 185          | 10.9                           | 152                              |
| Eating and drinking places   | 91.7                  | 47.4                     | 31.9                  | 1,434        | 22.9                           | 1,176                            |
| Health services  | 12.7                  | 8.0                      | 4.3                   | 105          | 3.1                            | 86                               |
| Miscellaneous services   | 10.7                  | 5.9                      | 2.5                   | 94           | 1.8                            | 77                               |
| Other  | 2.2                   | 0.8                      | 0.6                   | 11           | 0.4                            | 9                                |
| <b>Total</b>   | <b>\$519.2</b>        | <b>\$302.9</b>           | <b>\$144.0</b>        | <b>3,586</b> | <b>\$85.9</b>                  | <b>2,906</b>                     |

SOURCE: IBO.

NOTES: <sup>1</sup>Total industry output less intermediary inputs. Corresponds to gross product. <sup>2</sup>Earnings include wages and salaries, proprietors' income, directors' fees, and employer contributions for health insurance less personal contributions for social insurance. <sup>3</sup>Based on county-to-county Place of Work-Place of Residence employment and earnings flows by major industry, with additional adjustment assuming 10 percent of Jets' team payroll earned by New York City residents.

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baseline estimate of the total annual output impact of the facility to \$519 million. Of that total, approximately \$303 million would be new value added (or gross city product), including \$144 million in annual new earnings. These results are all lower than the corresponding figures (\$623 million output, \$407 million value added, \$284 million earnings) in the Jets study—output by 17 percent, value added by 26 percent, and earnings by 49 percent.

In addition, IBO also found a significantly smaller employment impact. Our estimate of the total baseline scenario employment gain is 3,586 jobs, which is only a little more than half the Jets' estimate. The sectors showing the largest employment increases are food services (1,434 jobs), lodging (547 jobs), recreation (575 jobs), retail trade (214 jobs), and transportation (201 jobs).

IBO's analysis of the number of exposition events likely to be held at the sports and convention center suggest that attracting 20 expositions events may be difficult, at least in some years. Therefore we also estimated the direct and secondary economic impacts that would result if there were only 10 such events each year. These results are summarized in table on annual city economic and fiscal impacts of the proposed sports and convention center, which also includes estimates of the economic impacts if the facility operated solely as a stadium with stadium-related events.

*Methodological Issues.* The Jets' analysis of secondary impacts relies on a different input-output model produced by the Minnesota IMPLAN Group. Comparisons of RIMS II and IMPLAN have found the latter to yield markedly higher multipliers in certain industries, especially those affected by visitor spending (lodging and amusements, eating and drinking places, wholesale and retail trade); conversely, in manufacturing, construction, finance, utilities, and business services, RIMS II multipliers have tended to run a bit higher.

IMPLAN's method for deriving multipliers may upwardly bias the multipliers in industries characterized by relatively low-wage employment or a substantial amount of seasonal or part-time work—which of course include the same industries that are prominent in any economic project that relies on stimulating visitor spending: hotels, recreation, eating places, etc. Indeed two of the main composite multipliers yielded by the Jets' analysis are strikingly higher than those obtained by IBO. The composite earnings multiplier—the measure of the amount of total earnings generated by a unit of new output—is 0.69 in the Jets' analysis and 0.47 in IBO's. The composite employment multiplier—the measure of total jobs created by

\$1 million in new output—is 16.95 for the Jets' versus 11.73 for IBO.

## FISCAL IMPACT

Using these estimates of direct and secondary economic impacts IBO projected a baseline scenario of annual city fiscal impact of \$28.4 million in new tax revenue attributable to operation of the proposed facility. This is \$6.7 million less than the Jets' estimate. Reflecting the importance of visitor spending, the city's sales and hotel taxes would together account for \$17.8 million, nearly two-thirds of the new revenue.

Estimates of the fiscal impact using less optimistic assumptions of the number of exposition events held at the new facility are presented in the table on comparative estimates of economic and fiscal impacts of the proposed facility. If only 10 expositions were held in a year, new city tax revenues would be \$22.9 million. If the facility only hosted the expected 17 football games per year with no other events, total new city tax revenues would be \$9.2 million.

*Sales Tax.* IBO estimates that direct and secondary spending impacts from the sports and convention center and new visitor spending would generate \$13.7 million in city sales tax revenue. This is \$2.5 million less than the Jets' local sales tax estimate. Note that IBO has restated the Jets' figure because they include \$1.0 million in revenue that is raised by a sales tax surcharge imposed inside the Metropolitan Commuter Transportation District (MCTD) and goes to the MTA. Since MCTD surcharge revenue does not flow into New York City's general fund and is not available either to offset the costs of the city's stadium investment or to finance other city spending, it should not be counted with city revenue in a city fiscal impact analysis.

In IBO's estimate, the major sources of sales tax revenue would be eating and drinking places (\$3.6 million), stadium ticket prices and event fees (\$3.4 million), hotels (\$2.6 million), and retail sales (\$0.9 million). IBO's sales tax estimate reflects the restored clothing tax exemption, which will affect most of the apparel sales to visitors inside and outside the stadium. Note, however, that while apparel purchases are likely to comprise a large share of retail sales to visitors, retail sales will account for a relatively small portion of total visitor spending.

*Hotel Tax.* IBO' baseline estimate of \$4.1 million in annual new hotel tax collections flows straightforwardly from our

estimate of almost 450,000 hotel room nights demanded by incremental overnight visitors at an average price of \$162 per room. This yields an estimate of \$64 million in annual new hotel receipts; the city's 5 percent hotel tax rate applied to this total generates a little less than \$3.2 million, while the additional \$2 per room charge generates another \$1.0 million. If the proposed \$1.50 per room-night charge to be used to help finance the Javits center expansion is adopted, the new room stays associated with the Jets' facility would yield \$675,000 annually.

**Individual Income Tax.** IBO's baseline estimate of the annual personal income tax (\$3.0 million) revenue impact of the proposed sports and convention center is much lower than that of the Jets (\$5.5 million). This is due not only to IBO's smaller earnings impact numbers, but also to three adjustments IBO makes for residency. First, while the Jets include in the individual income tax base the entire \$20.2 million in home and visiting team player compensation attributed to stadium duty days, IBO recognizes that only the duty day income earned by players who live in New York City would be subject to the city personal income tax. Currently, to our knowledge, no Jets player lives in the city. However, IBO has assumed for the purposes of this analysis that a move to Manhattan would induce some Jets players to become city residents and that 10 percent of the team's payroll would become taxable by the city.

Second, while the Jets' analysis accounts for a mix of city residents and nonresidents among the employees associated with the operation of the stadium (these account for less than a tenth of the total employment impact estimated by the Jets), IBO assigns residence distributions for all the jobs generated directly and indirectly by stadium operations and visitors' spending. IBO estimates that about one-fifth of the new jobs

and two-fifths of the new earnings generated by the stadium will go to commuters. That leaves 2,905 jobs with \$86 million in earnings as the gain for residents of New York City. Nonresident earnings are of course subject to state but not city income taxation.

Third, IBO's impact estimate also recognizes that only a small portion of the new capital income generated as part of the increased output in the city will accrue (as dividends and interest earnings) to the personal income of residents of the city—and state. It is not where the income-producing assets are located, but where the owners of those assets are located, that determines the geographic distribution of this portion of personal income. Thus, while IBO has a higher estimate of new "property-type income" (see End note 5) than do the Jets (\$110 million versus \$75 million), we only add a few percent of that total to new resident earnings to arrive at our estimate of new resident personal income (which in turn yields our estimate of new city taxable income); the Jets add their entire

| <b>Annual City Economic and Fiscal Impact of Proposed New York Sports and Convention Center</b> |                              |   |   |                     |
|---|------------------------------|---|---|---------------------|
| <i>Except employment, dollars in millions</i>   |                              |   |   |                     |
|   | IBO                          |   |   |                     |
|   | No<br>convention<br>activity | Less<br>convention<br>activity <sup>1</sup> | Baseline<br>convention<br>activity <sup>2</sup> | Jets <sup>3,4</sup> |
| <b>Economic Impact:</b>   |                              |   |   |                     |
| Output  | \$201.2                      | \$428.5                                     | \$519.2   | \$622.9             |
| Earnings  | 53.4                         | 118.0                                       | 144.0   | 284.2               |
| Employment  | 1,179                        | 2,930                                       | 3,586   | 6,971               |
| <b>City Fiscal Impact:</b>  |                              |   |   |                     |
| General sales tax   | \$5.5                        | \$11.4                                      | \$13.7  | \$16.3              |
| Hotel tax   | .                            | 2.9   | 4.1   | 3.9                 |
| Property tax  | 1.0                          | 2.6   | 3.2   | 6.3                 |
| Personal income tax   | 0.9                          | 2.3   | 2.9   | 5.5                 |
| Business income taxes   | 1.3                          | 2.5   | 3.0   | 1.0                 |
| All other taxes   | 0.5                          | 1.2   | 1.5   | 2.1                 |
| <b>Total City Fiscal Impact</b>   | <b>\$9.2</b>                 | <b>\$22.9</b>                               | <b>\$28.4</b>                                   | <b>\$35.2</b>       |
| <b>State Fiscal Impact:</b>   |                              |   |   |                     |
| General sales tax   | \$5.5                        | \$11.4                                      | \$13.7  | \$18.1              |
| Personal income tax   | 2.6                          | 5.7   | 7.0   | 14.1                |
| Business income taxes   | 0.8                          | 1.5   | 1.8   | 1.0                 |
| All other taxes   | 0.9                          | 1.9   | 2.3   | 3.1                 |
| <b>Total State Fiscal Impact</b>  | <b>\$9.9</b>                 | <b>\$20.6</b>                               | <b>\$24.9</b>                                   | <b>\$36.3</b>       |
| <b>MTA Fiscal Impact:</b>   |                              |   |   |                     |
| Metropolitan Commuter Transportation District surcharges  | \$0.5                        | \$1.0                                       | \$1.2   | \$1.0               |
| <b>Total Fiscal Impact</b>  | <b>\$19.6</b>                | <b>\$44.6</b>                               | <b>\$54.5</b>                                   | <b>\$72.5</b>       |

SOURCES: IBO, New York Jets.

NOTES: <sup>1</sup>Assumes 10 expos, two mega-events, two plenaries per year. 'Break-even' revenues are sufficient to cover annual debt service costs, about \$21 million each for the city and state, on stadium-related public investments. <sup>2</sup>Assumes 20 expos, two mega-events, two plenaries per year. <sup>3</sup>Jets assume 35 expos, two mega-events, three plenaries per year. <sup>4</sup>Jets' fiscal impact figures restated to separate Metropolitan Commuter Transportation District sales tax surcharge revenues from city sales taxes. Before restatement, Jets' total "local taxes" impact estimate is \$36.2 million.

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property income estimate to personal income.

**Business Income Taxes.** Under IBO's baseline assumption, the city's three business income taxes (general corporation tax, bank corporation tax, unincorporated business tax) would together gain \$3.0 million, of which \$0.8 million would accrue to the unincorporated business tax. IBO's estimate of the combined nonfinancial and financial corporation tax revenue gain (\$2.2 million) is in relative terms substantially higher than the Jets' estimate (\$1.3 million). The difference corresponds in part to IBO's higher property-type income estimate, and the latter is the basis for our estimation of the impact on the city's corporate taxable income base.

**Real Property Tax.** IBO's estimates of the property tax (\$3.2 million) revenue impact of the proposed facility using our baseline assumption is little more than half of the Jets' estimate (\$6.3 million). As noted above, IBO's estimates of the resident New York City employment and earnings impact of the sports and convention center are much smaller than the Jets'. Nonresident earnings exercise relatively little influence on the value of New York City real estate.

**New York State Taxes.** IBO estimates that under the baseline scenario new state tax revenue would total \$24.9 million, \$11.4 million less than the Jets' figure. This number assumes that the state sales tax rate reverts as scheduled to 4.0 percent (the Jets' analysis uses the current—but temporary—4.25 percent). New MTA tax revenue would be \$1.2 million. This revenue comes from state sales and corporation tax surcharges imposed in the Metropolitan Commuter Transportation District. The state would generate substantially more personal income tax revenue than the city because it is able to tax non city (and non-state) residents, including football players. Nevertheless, IBO's estimate of state personal income tax revenues (\$7.0 million) is far smaller than the Jets' estimate (\$14.1 million). New York State, unlike New York City, taxes the local earnings of nonresidents; so the residence of the new city job holders (including the football players earning duty days at the stadium) is not at issue here. It may be that the Jets' estimate is inflated due to the inclusion of all property-type income (instead of just the state resident share of increased dividends and interest, as discussed above) in their measure of personal income.

**Potential Loss to the MTA.** The MTA owns the rail yards over which the new facility would be built. The Jets propose to make a lease payment to the MTA for the right to build the new facility, although the team and the Bloomberg Administration contend that the value of the leased rights is modest. While the MTA has not acknowledged receiving any viable proposals, it could theoretically generate some much needed cash for its operating or capital budgets by selling the air rights over the yards for commercial or residential development. Of course, these air rights are essentially worth nothing unless a platform—estimated cost of \$375 million—is built. Therefore, the price a private developer would be willing to pay for the site would reflect the cost and difficulty of such construction. A decision to forego what a private developer would pay represents a hidden cost of the project.

The development potential of the rail yards will presumably be increased if the plans for the rest of the Hudson Yards area come to fruition. The extension of the subway to 11<sup>th</sup> Avenue, construction of another platform over the eastern half of the rail yards (the portion from 10<sup>th</sup> to 11<sup>th</sup> Avenues) and other infrastructure, as well as a rezoning of much of the area for commercial and residential use, might well pique developer interest in the western portion of the rail yards as well.

The Bloomberg Administration's plans for the eastern rail yards platform provide a benchmark for valuing the air rights of the western rail yard (from 11<sup>th</sup> to 12<sup>th</sup> Avenues). As part of the Hudson Yards proposal the city intends to build a platform over the yards from 10<sup>th</sup> to 11<sup>th</sup> Avenues from 30<sup>th</sup> to 33<sup>rd</sup> Streets creating an area of 570,000 square feet. This would be zoned for very high-density development resulting in potential construction of 10.8 million square feet. The Hudson Yards plan assumes the sale or lease of these rights to build either on the platform or for transfer elsewhere in the Hudson Yards area—part of the platform will be reserved to serve as an Olympic park if the city's bid is successful—producing a net value of \$182 million (in 2003 dollars) after accounting for the initial cost of building the platform. Assuming the Hudson Yards plan proceeds, density on a platform over the western rail yards is likely to be lower than on the eastern portion, but it could still plausibly yield substantial value for the MTA.

*Written by David Belkin and Rachelle Celebrezze*

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## END NOTES

<sup>1</sup> IBO's output, earnings, and tax revenue numbers are pegged to the projected 2009 opening of the sports and convention center; these numbers would rise in subsequent years due to economic growth and inflation. However, the debt service for the city's investment would change by little, if at all. Therefore, over time the margin would likely grow—assuming the facility continues to host a sufficient number of events.

<sup>2</sup> Adjustments were made to several of the industry earnings and employment multipliers where they were found to yield average earnings much lower than those currently found in New York City; this was notably the case in the financial and business service sectors.

<sup>3</sup> In extrapolating estimates of value added and its components, IBO used data from BEA's national input-output accounts (i.e. the Use of Commodities and Commodity by Industry Direct Requirements benchmark tables) in conjunction with the regional input-output data from RIMS II. The value added component estimates were derived largely for comparative purposes, although also to help establish the size of the impact on the city's corporate tax base.

<sup>4</sup> Note that capital consumption and the surplus of enterprise together make up a value added subcategory called property-type income.

<sup>5</sup> Earnings include wages and salaries, proprietors' and partnership income, directors' fees, and employer contributions for health insurance less personal contributions for social insurance.

<sup>6</sup> See Wen-Hui Chang, "Potential Bias of Using IMPLAN Type III Multipliers for Assessing Economic Impacts of Tourism Spending: A Comparison of IMPLAN and RIMS II Multipliers for the State of Michigan," [http://](http://www.msu.edu/user/changwe4/implan/compare.htm)

[www.msu.edu/user/changwe4/implan/compare.htm](http://www.msu.edu/user/changwe4/implan/compare.htm). The Jets' analysis uses the Type III multipliers examined in the Chang paper.

<sup>7</sup> The composite output multiplier—the measure of the amount of total output directly and indirectly generated by a unit of new output—is slightly smaller in the Jets' analysis (1.51) than in IBO's (1.69).

<sup>8</sup> Moreover, to be consistent, the Jets should have also included transportation district corporate tax surcharge revenue in their "local tax impact" tally; but it does not appear that they have done so.

<sup>9</sup> Under National Football League conventions, players are paid for 180 days of work per year. For state and local income tax purposes, the league allocates two duty days of each player's salary to the site of a game. Thus, the Jets players are assumed to work at the stadium for 20 days per year and the players on the 10 visiting teams each year will be also be paid for a total of 20 duty days of work at the stadium. The average payroll data supplied by the Jets—with the league's salary cap there is little variation in team payrolls—indicates that allocated player salaries earned at the facility will total a little over \$20 million. The Jets' description of their fiscal impact methodology includes "income apportioned to New York City by player duty-days" in the city individual income tax base.

<sup>10</sup> These distributions are based on existing patterns of residency and earnings for employees in New York City industries, drawn from Census Bureau county-to-county Place-of-Work/Place-of-Residence tables.

<sup>11</sup> Note that IBO's estimate yields \$816 in new business taxes per new job, which is comparable to existing total corporate taxes per job (projected at \$902 in 2008), whereas the Jets' estimate yields only \$292 in new business taxes per new job. Even accounting for the Jets' likely overstatement of the total employment impact of the facility, discussed above, the Jets' business taxes/jobs ratio suggests that their business tax impact estimate is low.

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