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June 16, 2006

TO: Michael O'Connell
FROM: David Helton and Terry Moore
SUBJECT: ECONOMIC IMPACT OF HEADQUARTERS HOTEL IN PORTLAND

The Portland Development Commission asked ECONorthwest to estimate the economic impacts associated with development of a 600-room Headquarters Hotel adjacent to the Oregon Convention Center in Portland.¹ The main assumptions and conclusions are:

- By 2013, the Headquarters Hotel will attract new events and retain events in Portland that will generate 129,000 Occupied Room Nights (ORNs) and 150,000 Delegate-Days per year.
- These new and retained events will generate expenditures of almost \$50 million in the Portland region in 2013 (in 2004 dollars).
- These expenditures will generate a total economic impact of over \$100 million in Output (business sales) and \$40 million in Labor Income (in 2004 dollars), and the equivalent of almost 1,500 full-time jobs in the Portland region in 2013.
- The present value in 2006 of future benefits generated by the Headquarters Hotel under a pessimistic to optimistic range of assumptions is \$850 million to \$1.6 billion in Output (business sales), \$340 million to \$653 million in Labor Income, and the equivalent of 278 to 2,058 annual full-time jobs.

This memorandum has five sections:

- **Background** describes the purposes and scope of the analysis, and summarizes the theory, techniques, and data relevant to estimating the impacts of a new Headquarters Hotel on key measures of regional economic activity.
- **Visitation and Spending Generated and Retained by a Headquarters Hotel** estimates of the number of additional Occupied Room Nights, attendees, and spending generated by a Headquarters Hotel
- **Business Sales, Labor Income, and Jobs Generated by the Headquarters Hotel** presents our estimate of the total economic impact of spending generated by the Hotel.

¹ The economic impact analysis in this memorandum is ECO's product for Phase III of its work on the proposed hotel. Phases I and II focused on a review of existing documents regarding the state of the national convention industry, performance of the OCC, and economic impact of the proposed Headquarters Hotel.

- **Fiscal Impacts of a Headquarters Hotel** estimates the tax revenue to State and local jurisdictions resulting from expenditures generated by the Hotel.
- **Qualitative Impacts of the Headquarters Hotel** describes other impacts of the Headquarters Hotel that are more difficult to quantify.

BACKGROUND

The Portland Development Commission has asked ECONorthwest to estimate the economic impacts associated with development of a 600-room Headquarters Hotel adjacent to the Oregon Convention Center in Portland. To estimate the total economic impact of the Hotel, we estimated the level of annual spending that can be attributed to the Hotel (expenditures that would not have occurred in the Portland economy but for the existence of the Hotel). We used a model of the regional economy to estimate the total impact of these expenditures as they circulate through the Portland economy. We estimate these impacts in terms of business sales, labor income (wages and benefits) and full-time jobs generated by expenditures attributable to the Hotel. We also estimate the fiscal impact (tax revenue) to the State and local jurisdictions resulting from expenditures attributable to the Hotel.

The focus of the analysis in this report is on the impact of operation of the Headquarters Hotel. Construction of the Headquarters Hotel, however, will also generate business sales, labor income, job, and tax revenue over three years. We also report an estimate of economic impacts generated by construction of the Headquarters Hotel in our impact analysis.

VISITATION AND SPENDING GENERATED AND RETAINED BY A HEADQUARTERS HOTEL

PKF Consulting prepared an estimate of the impact of a 600-room Headquarters Hotel on the number of events and visitors in Portland generated by and retained by the Hotel.² PKF estimates that by 2013 a 600-room hotel would:

- Attract an additional 17 conventions annually at the OCC. Each event would generate an average of 3,600 Occupied Room Nights (ORNs) (1,200 per day for three days)—a total of 61,200 new ORNs annually.
- Attract another 43,000 ORNs annually of in-house group business at the Headquarters Hotel that would not otherwise happen in Portland.
- Retain 6-8 events at the OCC that would otherwise leave Portland because of a lack of a Headquarters Hotel. These events average 1,000 to 1,400 ORNs per day with an average stay of 3 days, or about 25,000 ORNs annually.

Our assessment of the impacts estimated by PKF Consulting is that they are reasonable to the point of conservative given the size of the convention and exhibition event industry and the attractiveness of Portland as an event destination. Data from the Center for Exhibition Industry Research *Exhibition Industry Census*³ shows that there were at least 4,500 events in the United States and Canada using 10,000 to 249,000 square feet of exhibition space in 2004. This is the

² Greg Crown, PKF Consulting. "The Impact of the Failure to Develop a Headquarters Hotel." Draft.

³ Center for Exhibition Industry Research, CEIR <http://www.ceir.org/>

minimum number of events as data in the Census is self-reported by event organizers and confirmed by a third-party auditor, so it does not include events that did not respond to the CEIR Census survey. Portland needs only attract a small fraction of these events to generate the impact estimated by PKF Consulting.

Table 1 summarizes the number of additional/retained events, delegates per event, total ORNs, and total delegate-days spent in Portland by event type. To calculate total ORNs generated by the additional events, PKF Consulting assumed that each delegate at the additional or retained events would spend three nights in a hotel room. To calculate total delegate-days, we assumed that each delegate spends 3.5 days in Portland to include time that delegates spend in Portland before and after their event.⁴

Table 1. Events attracted or retained by a Headquarters Hotel, delegates per event, total ORNs, and total delegate-days spent in Portland by event type, 2013

| Event Type | Events | Delegates per Event | Total ORNs | Total Delegate Days |
|--------------------------------------|---------------|----------------------------|-------------------|----------------------------|
| New OCC Events | 17 | 1,200 | 61,000 | 71,000 |
| Retained OCC Events | 7 | 1,200 | 25,000 | 29,000 |
| New and Retained OCC Events | 24 | | 86,000 | 100,000 |
| New HQ Hotel Events | | | 43,000 | 50,000 |
| Total OCC and HQ Hotel Events | | | 129,000 | 150,000 |

Source: PKF Consulting; summary and delegate-days by ECONorthwest.

Assumptions: Each delegate stays in a hotel room three nights and stays in Portland 3.5 days.

To estimate the amount of expenditures this additional and retained visitation would generate in Portland, we used the *ExPact 2004 Convention Expenditure & Impact Study* published by the International Association of Convention & Visitor Bureaus Foundation.⁵ The *ExPact 2004 Study* reports average expenditures by convention delegates, exhibiting companies, and event organizers broken down by event type and expenditure type. The expenditure data are derived from completed surveys returned by 12,920 delegates, 1,286 exhibiting companies, and 77 event organizers. The *ExPact 2004 Study* uses methods to provide statistically valid estimates of expenditures that can be used to measure the direct spending and economic impact of conventions, meetings, trade shows, and exhibitions in the host community. The *ExPact 2004 Study* reports expenditures in the host city only—it omits expenditures on airfare and other expenditures incurred outside of the host city.

To estimate total spending in Portland generated by events attracted or retained by the Headquarters Hotel we use the number of ORNs and delegate-days reported in Table 1 and expenditures reported in the *ExPact 2004 Study*. To make this estimate we must make assumptions about the correspondence of the data on additional and retained use from PKF Consulting with the expenditure data reported in the *ExPact 2004 Study*. The rest of this section describes the assumptions and data we use to estimate expenditures in the Portland region. We chose methods and assumptions to yield conservative but reasonable estimates of total new expenditures resulting from the existence and operation of the Headquarters Hotel.

⁴ This assumption reflects event-related time in Portland only, and does not include additional time that some delegates may choose to spend in Portland or the Pacific Northwest for recreation, travel, visiting family, etc.

⁵ Revised February 2005. www.iacvb.org

The *ExPact 2004 Study* reports total expenditures and average daily expenditures by type for All Events and for International/National/Regional events only.⁶ We apply data for All Events or for International/National/Regional events as appropriate to estimate expenditures generated by the Headquarters Hotel. The *ExPact 2004 Study* reports only local expenditures by delegates, exhibitors, and event organizers—non-local expenditures such as airfare is not included. Since the *ExPact 2004 Study* was published in 2004, the expenditures are in 2004 dollars. Applying 2004 dollars to ORNs and delegate-days generated in 2013 produces an estimate of this future impact in 2004 dollars. We use 2013 as the base year for estimating annual economic impacts because this is the first year in which PKF Consulting shows operation of the Headquarters Hotel having a full impact on the number of events at the OCC.

For delegate spending at additional and retained events at the OCC we used average daily expenditure data for International/National/Regional Events. For events at the Headquarters Hotel, we used the data for All Events as these data also include State/Local Events, which may better reflect spending by delegates at events in the Headquarters Hotel. For visitors of groups using the Headquarters Hotel we omitted expenditures for Auto Rental and Local Transportation under the assumption that a higher proportion of these visitors will drive and not need to rent a car or hire a cab; remaining Transportation expenditures for these visitors is primarily for gas and parking.

Table 2 shows the result of applying the average daily expenditures to the number of delegates attracted or retained by the Headquarters Hotel as shown in Table 1. For calculating expenditures on Lodging & Incidentals, we used the number of ORNs by event type shown in Table 1, which represents each delegate spending three nights in a hotel room. For other categories of expenditures we use delegate-days shown in Table 1, as this captures expenditures that delegates make during their entire stay in Portland, including in the morning of their last day before they leave Portland.

We calculated annual expenditures using ORNs and delegate-days shown in Table 1. Table 2 shows that visitors attracted or retained in Portland by the Headquarters Hotel would spend a total of \$36.2 million annually for lodging, food, retail purchases, transportation, and entertainment in the Portland area. Table 2 also shows that the average number of event nights per delegate and delegate travel party size reported in the *ExPact 2004 Study*. The reported average number of nights per delegate 3.56, supports our assumptions that delegates at events in Portland will spend three nights and 3.5 days, and suggests that our assumptions are conservative. The reported average delegate travel party size of 1.05 indicates that most delegates travel alone, supporting the assumption used by PKF Consultants that each delegate staying overnight will generate an Occupied Room Night at an area hotel.

⁶ All Events includes expenditures at events classified as International/National/Regional and State/Local events. Expenditures for State/Local events is not reported separately in the *ExPact 2004 Study* due to an insufficient number of responses to yield a statistically valid representation of delegate expenditures that market. The difference between data for All Events and International/National/Regional events is small, and spending at All Events in each category is generally less than spending at International/National/Regional events alone.

Table 2. Expenditures by delegates attracted or retained by the Headquarters Hotel, 2013 (\$2004)

| Type of Expenditure | Daily Expenditure | | Annual Expenditures |
|--|-------------------|-----------------|---------------------|
| | OCC Events | HQ Hotel Events | |
| Lodging & Incidentals | \$127.52 | \$126.45 | \$16,404,070 |
| Food & Beverage | \$73.36 | \$76.16 | \$11,233,152 |
| Entertainment/Recreation | \$7.23 | \$8.29 | \$1,146,600 |
| Retail | \$28.60 | \$29.16 | \$4,352,544 |
| Transportation | \$24.82 | \$10.22 | \$3,016,944 |
| Other | \$0.10 | \$0.17 | \$18,648 |
| Total | \$261.63 | \$250.45 | \$36,171,958 |
| Average number of nights per delegate: | | | 3.56 |
| Average delegate travel party size: | | | 1.05 |

Source: Average daily expenditures, nights per delegate, and delegate travel party size from *ExPact 2004 Study*.

In addition to expenditures by visitors in Portland, events attracted or retained by the Headquarters Hotel will generate expenditures by event organizers and exhibiting companies. Table 3 shows expenditures by organizers of events that would be attracted or retained by the Headquarters Hotel in 2013. To estimate expenditures by organizers of events at the OCC and Headquarters Hotel, we used the average event organizer expenditure per delegate-day reported in the *ExPact 2004 Study* (\$22.36) and the number of delegate-days shown in Table 1 (151,200). By using average expenditures *per delegate-day*, rather than *per event*, we weight the event organizer expenditures by the size of events that would be attracted or retained by the Headquarters Hotel. The level of event-organizer spending per delegate-day is low compared to spending per day by delegates themselves because expenditures for events are spread across a large number of delegate-days. Table 3 shows that organizers of events attracted or retained by the Headquarters Hotel would spend almost \$3.4 million annually in 2013 (in 2004 dollars) in the Portland area. While this level of spending is significant, it is only about 10% of the annual spending generated by delegate spending.

Table 3. Expenditures by organizers of events attracted or retained by the Headquarters Hotel, 2013 (\$2004)

| Type of Expenditure | % of Total Expenditures | Annual Expenditures |
|---|-------------------------|---------------------|
| Food & Beverage | 26.6% | \$899,301 |
| Exhibition Space Fees | 23.4% | \$791,115 |
| Services Hired | 22.0% | \$743,783 |
| Equipment Rental | 9.7% | \$327,941 |
| Staff Living | 6.2% | \$209,612 |
| Advertising (in event city) | 3.6% | \$121,710 |
| Technology Services | 1.7% | \$57,474 |
| Additional Space | 1.2% | \$40,570 |
| Local Transportation | 1.0% | \$33,808 |
| Other | 4.6% | \$155,518 |
| Total | 100.0% | \$3,380,832 |
| Avg. event organizer spending per delegate day: | | \$22.36 |

Source: Average event organizer spending per delegate-day from *ExPact 2004 Study* (all events). Annual expenditures calculated by ECONorthwest using delegate-days shown in Table 1.

Table 4 shows the amount of expenditures in the Portland area by exhibiting companies at events attracted or retained by the Headquarters Hotel. To estimate these expenditures, we used average exhibitor spending per delegate-day, rather than spending per event, again to weight the

expenditures by size of events. We used the number of delegate-days from events at the OCC (100,800) to estimate expenditures by exhibiting companies at all events attracted or retained by the Headquarters Hotel. We did not include delegate-days from events at the Headquarters Hotel itself in our estimate to reflect our expectation that some events will have few or no exhibiting companies.⁷

Table 4 shows that exhibiting companies from events attracted or retained by the Headquarters Hotel would spend over \$9.3 million in Portland in 2013 (in 2004 dollars).

Table 4. Expenditures by exhibiting companies at events attracted or retained by the Headquarters Hotel, 2013 (\$2004)

| Type of Expenditure | % of Total Expenditures | Annual Expenditures |
|--|--------------------------------|----------------------------|
| Staff Living | 50.1% | \$4,682,939 |
| Vendor Services | 12.3% | \$1,149,704 |
| Food & Beverage | 12.1% | \$1,131,009 |
| Equipment Rental | 10.6% | \$990,802 |
| Advertising (in event city) | 2.9% | \$271,068 |
| Local Transportation | 2.8% | \$261,721 |
| Services Hired | 2.1% | \$196,291 |
| Additional Meeting Rooms | 1.6% | \$149,555 |
| Other | 5.5% | \$514,095 |
| Total | 100.0% | \$9,347,184 |
| Avg. exhibiting company spending per delegate day: | | \$92.73 |

Source: Average event organizer spending per delegate-day from *ExPact 2004 Study* (all events). Annual expenditures calculated by ECONorthwest using delegate-days shown in Table 1.

Table 5 summarizes the expenditures estimated in Tables 2, 3, and 4. Table 5 shows that events attracted or retained by the Headquarters Hotel would generate expenditures of almost \$50 million annually in Portland in 2013 (in 2004 dollars). The largest source of expenditures would be Delegates, followed by Exhibiting Companies and Event Organizers. The largest type of expenditures would be on Lodging & Incidentals, followed by Food & Beverage. These two expense categories, together with expenditures for Staff Living (which is primarily for lodging) together account for over 70% of total expenditures from events attracted or retained by the Headquarters Hotel.

⁷ Some events at the Headquarters Hotel will have exhibitors, and some events at the OCC will not. We use delegate days for events at the OCC to estimate exhibitor expenditures, rather than all events, to be conservative in our estimate.

Table 5. Expenditures generated by events attracted or retained by the Headquarters Hotel, 2013 (\$2004)

| Type of Expenditure | Expenditure Source | | | Total |
|-----------------------------|---------------------|--------------------|----------------------|---------------------|
| | Delegates | Event Organizers | Exhibiting Companies | |
| Lodging & Incidentals | \$16,404,070 | | | \$16,404,070 |
| Food & Beverage | \$11,233,152 | \$899,301 | \$1,131,009 | \$13,263,463 |
| Staff Living | | \$209,612 | \$4,682,939 | \$4,892,551 |
| Retail | \$4,352,544 | | | \$4,352,544 |
| Local Transportation | \$3,016,944 | \$33,808 | \$261,721 | \$3,312,473 |
| Equipment Rental | | \$327,941 | \$990,802 | \$1,318,742 |
| Vendor Services | | | \$1,149,704 | \$1,149,704 |
| Entertainment/Recreation | \$1,146,600 | | | \$1,146,600 |
| Services Hired | | \$743,783 | \$196,291 | \$940,074 |
| Exhibition Space Fees | | \$791,115 | | \$791,115 |
| Other | \$18,648 | \$155,518 | \$514,095 | \$688,261 |
| Advertising (in event city) | | \$121,710 | \$271,068 | \$392,778 |
| Additional Space | | \$40,570 | \$149,555 | \$190,125 |
| Technology Services | | \$57,474 | | \$57,474 |
| Total | \$36,171,958 | \$3,380,832 | \$9,347,184 | \$48,899,974 |

Source: ECONorthwest.

We refer to all the expenditures in Table 5 as *direct* expenditures: new money coming into the Portland regional economy because delegates, event organizers, and exhibitors are spending money in the region. The next section uses a model of the Portland area economy to estimate *indirect* (and *induced*) impacts on total business sales, personal income, and jobs generated as the spending in Table 5 circulates through the regional economy.

BUSINESS SALES, LABOR INCOME, AND JOBS GENERATED BY OPERATION OF THE HEADQUARTERS HOTEL

We used IMPLAN, a regional input-output model, to estimate the economic impact of expenditures generated by events attracted or retained by the Headquarters Hotel. IMPLAN allows us to estimate the total amount of Output (business sales), Labor Income, and jobs generated by these expenditures in the three-county Portland region (Multnomah, Clackamas, and Washington County).

Impact of Headquarters Hotel in 2013

We matched event expenditures in Table 5 to industry categories used in the IMPLAN model to estimate economic impacts. Table 6 shows the IMPLAN industries we selected to correspond to the event expenditure categories and the regional multipliers associated with these industries.

Table 6. Industries and IMPLAN multipliers corresponding to event expenditure categories

| Type of Expenditure | Direct Expenditures | Industry Proxy | Total Impact Multiplier | | |
|-----------------------------|---------------------|---|-------------------------|--------------|-------|
| | | | Output | Labor Income | Jobs |
| Lodging & Incidentals | \$16,404,070 | Hotels and motels- including casino hotels | 2.12 | 0.86 | 27.68 |
| Food & Beverage | \$13,263,463 | Food services and drinking places | 2.06 | 0.75 | 31.13 |
| Staff Living | \$4,892,551 | Hotels and motels- including casino hotels | 2.12 | 0.86 | 27.68 |
| Retail | \$4,352,544 | Miscellaneous store retailers | 2.19 | 1.01 | 41.07 |
| Local Transportation | \$3,312,473 | Transit and ground passenger transportation | 2.09 | 0.88 | 33.05 |
| Equipment Rental | \$1,318,742 | Business support services | 2.15 | 0.94 | 28.58 |
| Vendor Services | \$1,149,704 | Business support services | 2.15 | 0.94 | 28.58 |
| Entertainment/Recreation | \$1,146,600 | Promoters of performing arts and sports | 2.13 | 0.73 | 57.36 |
| Services Hired | \$940,074 | Facilities support services | 2.21 | 0.86 | 25.93 |
| Exhibition Space Fees | \$791,115 | Facilities support services | 2.21 | 0.86 | 25.93 |
| Other | \$688,261 | Other support services | 2.10 | 0.76 | 17.91 |
| Advertising (in event city) | \$392,778 | Advertising and related services | 2.26 | 0.90 | 22.88 |
| Additional Space | \$190,125 | Facilities support services | 2.21 | 0.86 | 25.93 |
| Technology Services | \$57,474 | Other computer related services | 2.21 | 0.84 | 17.53 |
| Total | \$48,899,974 | | | | |

Source: ECONorthwest. Multipliers from MIG IMPLAN © model.

The IMPLAN model uses multipliers to estimate the total impact of expenditures in a region on Output (business sales), Labor Income, and jobs in the region. The *Total Impact Multipliers* in the last columns of Table 6 include direct, indirect, and induced impacts. These categories reflect the impact of expenditures as they circulate through the regional economy. Direct impacts occur at the point of sale; indirect and induced impacts occur in the region as the income from direct impacts is spent on other goods and services in the region.

- **Output multipliers** typically describe the change in Output in an economy per dollar of direct impact. Changes in output primarily reflect changes in gross sales by area businesses. A total output multiplier of 2.12 indicates that total Output in the economy increases by \$2.12 for each \$1 of direct expenditure. This total results from purchases of other goods and services in the regional economy generated from the original \$1 of direct expenditures. These additional purchases eventually total \$1.12.

Output is primarily reflected as gross business sales in the economy, so we use the term *business sales* as a synonym for output. In most businesses, a large portion of gross sales goes toward paying wages and benefits to workers, and a smaller portion goes to the business owner as profit. The portion of business sales that go to labor and business owners in the Portland region is captured by the Labor Income multiplier and Employment multipliers.

- **Labor Income multipliers** describe the change in Labor Income per \$1 change in Output. Labor Income means money that people working in the Portland area receive as compensation, primarily in the form of wages, salaries, and benefits. Aggregated increases to Labor Income is one reasonable way to measure the economic benefit that a new headquarters hotel would have on the region. A total income multiplier of 0.86 indicates that total personal income in the economy increases by \$0.86 for every dollar of expenditures.

Labor Income impacts are a subset of Output impacts—that is, Labor Income impacts are the portion of Output impacts that result in income for workers and small business owners in the Portland region. Therefore the Output and Labor Income impacts should not be added.

- **Employment multipliers** represent the number of jobs, measured as full time-equivalent positions, per million dollars of direct expenditure. An employment multiplier of 27.68 indicates that every million dollars of expenditures in the Portland economy generates the equivalent of 27.68 full time-equivalent positions.

Applying the total impact multipliers to the level of expenditures in Table 6 results in an estimate of the total annual impact of expenditures generated by events attracted or retained by the Headquarters Hotel. The nearly \$50 million of expenditures shown in Table 6 would result in an annual economic impact in the Portland economy of:

- \$103 million in Output (business sales)
- \$41 million in Labor Income
- The equivalent of 1,500 Full-Time Jobs

These estimates are for the year 2013, and the estimates of Output and Labor Income impacts are in 2004 dollars. By using the IMPLAN model of the current economy to estimate these future impacts, we implicitly have assumed that the economic structure of the three-county region in 2013 will be similar to that today (a reasonable assumption given the purposes of this analysis).

The annual impacts will be distributed among the three counties that make up the Portland region as defined for this analysis: Clackamas, Multnomah, and Washington. To estimate the distribution of these impacts within the region, we used a breakout of expenditures by county developed by KPMG for their assessment of the economic impacts of the OCC.⁸ The estimate by KPMG is based on historical transient lodging tax receipts by jurisdiction and estimates of historical travel spending by county from the Oregon Tourism Commission. Table 7 shows the results.

Table 7. Allocation of expenditures by county in the Portland region

| County | Hotel Spending | All Other Spending |
|---------------|-----------------------|---------------------------|
| Clackamas | 8% | 14% |
| Multnomah | 81% | 72% |
| Washington | 11% | 14% |
| Total | 100% | 100% |

Source: KPMG. *Economic/Fiscal Impact Analysis for the Oregon Convention Center*. April 2005.

Applying the percentages to the level of expenditures shown in Table 5 yields an estimate of county-level impacts. For example, if 11% of the Hotel Spending in Table 5 is in Washington County, then Washington County will get 11% of the Output, Labor Income, and employment impacts generated by expenditures in Hotels. Table 8 shows the result of applying the percentages in Table 7 to estimate the annual regional impacts by county.

⁸ KPMG. *Economic/Fiscal Impact Analysis for the Oregon Convention Center*. Prepared for Metro E R Commission. April 2005.

Table 8. Economic impact of the Headquarters Hotel by county, 2013 (\$2004)

| County | Economic Impact | | |
|--------------|----------------------|---------------------|----------------|
| | Output | Labor Income | Employment FTE |
| Clackamas | \$11,779,082 | \$4,688,166 | 175 |
| Multnomah | \$78,605,181 | \$31,403,971 | 1,132 |
| Washington | \$13,135,956 | \$5,237,132 | 192 |
| Total | \$103,520,219 | \$41,329,270 | 1,499 |

Source: ECONorthwest.

Stream of annual economic impacts generated by the Headquarters Hotel

The analysis of economic impacts summarized in Table 8 is for the year 2013 only, which is the *first* year that operation of the Headquarters Hotel will have a full impact on the number of events and visitors at the OCC and Hotel. The Headquarters Hotel will, however, generate economic impacts as soon as it opens and will continue to generate impacts after 2013. Thus, *it is not enough for an analysis of total economic impacts to limit itself to looking at a single year—we must estimate the value of the stream of economic impacts that the Headquarters Hotel will generate as it operates in the future.*

Estimating a single value for a stream of impacts that occurs over many years is referred to as *discounting to present value*. The technique is based on the observation that future benefits and costs are less valuable to most people than current ones.⁹ The typical technique for summarizing a stream of impacts that occurs over many years is *discounting to present value*. Most people understand that in terms of a savings account or a mortgage. If a savings account pays 3% interest, then \$100 today will be \$103 in a year, and, going the other direction, \$103 a year from now is worth \$100 today. In the case of the HQ hotel, we can take the estimates of economic impacts in future years, “discount them to a present value” for each year, and then add up the discounted values to get an estimate of the total value of the impacts. Tables 9 and 10 show that analysis.

We use a discount rate of 3% per year to discount the stream of future economic impacts generated by the Headquarters Hotel into a single estimate that represents the value of that stream today. We do not discount for inflation because our estimates of future benefits are in constant 2004 dollars—an adjustment for inflation is not necessary or appropriate. To estimate the impact generated by the Headquarters Hotel in the years between its opening in 2010 and full impact in 2013, we used a ramp-up of Occupied Room Nights generated by the Headquarters Hotel estimated by PKF Consulting. Table 9 shows this ramp-up of ORNs generated by the Headquarters Hotel.

⁹ For example, most people would prefer to receive \$1 million today over \$1 million in five years. Even if we agreed that inflation would average 3% over this period, most people would still prefer \$1 million today over \$1 million adjusted for inflation in five years (\$1.15 million). The reason is that waiting for the money has an *opportunity cost* in addition to inflation—the opportunity cost is the return on other investments that one could make during the waiting period. Economists refer to this as the *time value of money*. It is a generally accepted rule-of-thumb that the time value of money averages 3% per year. This value is based on returns from low-risk investments such as corporate and municipal bonds, which have an average yield of about 3% above expected inflation over the long run.

Table 9. Ramp-up of ORNs generated by the Headquarters Hotel, 2010–2014

| Year | Occupied Room Nights | | | | |
|------|-----------------------|---------------------|-----------------|---------|-----------|
| | Additional OCC Events | Retained OCC Events | HQ Hotel Events | Total | % of 2013 |
| 2010 | 32,400 | 25,000 | 28,810 | 86,210 | 67% |
| 2011 | 46,800 | 25,000 | 36,000 | 107,800 | 83% |
| 2012 | 54,000 | 25,000 | 43,200 | 122,200 | 94% |
| 2013 | 61,200 | 25,000 | 43,200 | 129,400 | 100% |
| 2014 | 61,200 | 25,000 | 43,200 | 129,400 | 100% |

Source: Greg Crown, PKF Consulting.

After 2013, the Headquarters Hotel will have its full impact on retaining and attracting events to the OCC and generating economic impacts from the resulting expenditures, and these impacts will continue annually into the future. To assess the total benefit to the Portland economy from an investment in a Headquarters Hotel, we need to make an estimate of the future stream of economic impacts as the Hotel continues to operate after 2013. The estimate of room nights attracted or retained by the Headquarters Hotel from PKF Consulting, however, does not estimate these impacts after 2014 or comment on the expected trend.

In making assumptions about the future stream of benefits generated by the Headquarters Hotel, we considered two possible scenarios that would move future impacts in different directions:

- Our earlier review of existing documents for PDC on the state of the convention and event market found that the number events using over 5,000 square feet of exhibition space increased at an average rate of 2.5% per year between 1989 and 2004. Annual growth in net space rented, number of exhibitors, and attendance at 400 events surveyed by Tradeshow Week averaged growth of about 2% between 1995 and 2004, with higher rates of growth observed in earlier periods.¹⁰ We expect the convention and exhibition industry to continue to grow at rates close to these long-run averages. This suggests that the economic impacts generated by the Headquarters Hotel could increase over time as the number and size of large events continue to grow.
- Other cities have also invested in convention and hotel facilities, and we expect this competition to continue. In addition, some of the large events that might come in early years will grow too large for Portland in later years. These considerations suggest the possibility that the economic impacts generated by the Headquarters Hotel could decline over time as competition for these events increases faster than growth of demand in the industry.

Our assessment of these countervailing trends is that growth in the industry will lead to growth in the economic impacts generated by the Headquarters Hotel, despite increasing competition from other cities for events, because:

- Construction of a Headquarters Hotel will put Portland in the market for large events, and we expect this market to grow over time.
- Many of these large events are annual or semi-annual events that rotate to different regions of the country. The 2003 study by the Strategic Advisory Group found that roughly 60% of respondents who would consider holding an event in Portland thought

¹⁰ Hazinski, Thomas and Hans Detlefsen. "Is The Sky Falling on the Convention Industry?" *HVS Journal*. May 2005.

that the city was “about the same” or “more appealing” than other cities they would consider.¹¹

- We think that Portland will be increasingly attractive as a location for convention and exhibition events because of the increasing importance of culture and recreational amenities in selecting a location, the need for alternatives to overused locations such as Chicago and Las Vegas, and increasing benefits from Portland’s investments in light rail and neighborhood revitalization.
- Increasing personal income levels should cause delegate spending to grow faster than inflation over the long-run.

Given our expectation of growth in the economic impacts generated by the Headquarters Hotel in real (constant dollar) terms, a conservative assumption for estimating the present value of this stream of benefits is that they continue in future years at the same level as in 2013 (that is, assuming that there is no growth in the real value of benefits over time).

Table 10. Annual economic impact of the Headquarters Hotel, 2010–2030

| Year | Output | Personal Income | Employment FTE |
|---|-----------------|-----------------|----------------|
| Future Benefits (\$2004) | | | |
| 2010 | \$68,968,146 | \$27,534,748 | 999 |
| 2011 | \$86,240,183 | \$34,430,412 | 1,249 |
| 2012 | \$97,760,207 | \$39,029,650 | 1,416 |
| 2013 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2014 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2015 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2016 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2017 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2018 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2019 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2020 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2021 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2022 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2023 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2024 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2025 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2026 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2027 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2028 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2029 | \$103,520,219 | \$41,329,270 | 1,499 |
| 2030 | \$103,520,219 | \$41,329,270 | 1,499 |
| Present Value in 2006 (discounted 3% per year) | | | |
| | \$1,452,000,000 | \$580,000,000 | n/a |

Source: ECONorthwest.

This assumption is obviously just that: an assumption. But such assumptions are an inevitable part of forecasting. We have to make an assumption that reflects what we think will be happening in the U.S. economy, the Portland economy, and the convention and hotel industry 25

¹¹ Strategic Advisory Group. *Convention Center Hotel Strategic Plan*. Prepared for the Portland Oregon Visitors Association. February 2003.

years from now. After considering comments received on our draft report and talking with PKF Consulting, we concluded that the most reasonable assumption for the purposes of forecasting was to assume a steady (not growing, not declining) stream of economic benefits after 2013.¹²

Table 10 shows the stream of annual economic impacts generated by a Headquarters Hotel between 2010 and 2030. To estimate the impacts in 2010–2012, we apply the ramp-up of ORNs shown in Table 9. After 2014, we assume that the annual impact of the Headquarters Hotel will continue on at the 2013 level. We did not include impacts after the year 2030. Table 10 shows the resulting estimate of annual economic impact by year between 2010 and 2030.

To estimate the present value in 2006 of the stream of Output and Personal Income impacts shown in Table 10, we used an annual real discount rate of 3% to represent the time value of money. We did not discount for inflation because the impacts in Table 10 are all in 2004 dollars. Applying this discount rate to the stream of Output and Personal Income impacts shown in Table 10 results in a net present value of roughly \$1.5 billion in total output and \$580 million in total personal income.

Type of jobs generated by the Headquarters Hotel

Dividing annual Personal Income impacts by the number of annual full-time jobs in Table 10 results in an average income per job of \$27,569. For comparison, the Oregon Employment Department reports that the average pay per job in the Portland PMSA (Oregon portion) was \$40,651 in 2004.¹³ While this comparison suggests that the jobs generated by the Headquarters Hotel will be low-wage jobs, this is not an accurate characterization.

Focusing on the average income per job obscures the fact that visitor spending generated or retained by the Headquarters Hotel will support a wide range of jobs, including high-wage professional and managerial jobs to low-wage unskilled jobs. Visitor spending at the Headquarters Hotel and other hotels, for example, will support a range of jobs that include managers, accountants, electricians, plumbers, contractors, receptionists, housekeepers, and food service workers. The wages that these workers earn will be in turn spent on the whole range of consumer goods and services, such as health care, utilities, housing, and food, that also will support a wide range of jobs. In addition, many workers at hotels, such as waiters and bellhops, receive tips in addition to their wage, and wages for these occupations are low in part to reflect this tip income. The earnings data produced by IMPLAN may not fully represent all of this additional tip income.

Range of potential impacts under varying assumptions

Given the uncertainty about the future stream of impacts generated by the Headquarters Hotel, we investigated the sensitivity of our results to changes in the base assumptions. As explained earlier, one could argue that the stream of future impacts generated by the Headquarters Hotel will grow or decline in the future. To represent each of these scenarios, we made the following assumptions:

¹² We corresponded with Greg Crown of PKF Consulting about reasonable parameters for the long-term growth of benefits generated by the Headquarters Hotel. He agreed that an appropriately conservative approach would show a constant number of events and attendees over time beyond 2013, with growth in expenditures at or near the rate of inflation (that is, little or no growth in constant dollar terms).

¹³ Oregon Employment Department. Covered Employment and Wages. <http://www.qualityinfo.org/olmisj/CEP>

- To represent a scenario of growth in the stream of benefits generated by the Headquarters Hotel, we used the historical growth rate for the number of delegates and exhibitors at Tradeshow 400 events, 2% per year. We believe that this growth rate is optimistic and achievable only if Portland continues to invest in marketing and improvements to the OCC, nearby hotels, and regional attractions.
- To represent a scenario of declining benefits, we assumed that benefits generated by or attributable to the Headquarters Hotel declines 10% per year each year after 2014. We believe that this rate of decline overstates the potential for declining benefits from the Hotel over time.

The result of applying these assumptions to estimate the present value of the stream of future benefits generated by the Headquarters Hotel is shown in Table 11. As in Table 10, Table 11 uses a discount rate of 3% to estimate the value today of the future stream of benefits from the Hotel.

Table 11. Present value of economic impacts generated by the Headquarters Hotel under a range of assumptions, 2006

| Scenario | Output | Personal Income | Annual Employment FTE |
|--------------------|-----------------|------------------------|------------------------------|
| Declining Benefits | \$850,000,000 | \$340,000,000 | 278 to 1,499 |
| Constant Benefits | \$1,452,000,000 | \$580,000,000 | 999 to 1,499 |
| Growing Benefits | \$1,636,000,000 | \$653,000,000 | 999 to 2,058 |

Source: ECONorthwest.

Table 11 shows that the nearly \$50 million of expenditures shown in Table 6 would result in a stream of annual economic impacts in the Portland economy with a present value of:

- \$850 million to \$1.6 billion in Output (business sales)
- \$340 million to \$653 million in Personal Income
- The equivalent of 278 to 2,058 annual full-time jobs

The focus of the analysis in this report has been on the impact of operation of the Headquarters Hotel. Construction of the Headquarters Hotel, however, will also generate business sales, labor income, job, and tax revenue over three years. We estimated these impacts using IMPLAN and the same methods used for the analysis of operational impacts. To estimate the economic impacts, we used a construction cost for the 600-room Headquarters Hotel of \$150 million and assumed that this spending would be new to the Portland economy. IMPLAN shows that the initial expenditure of \$150 million to construct the Headquarters Hotel results in Output (business sales) of \$321 million, Labor Income of \$149 million, and 3,390 annual full-time jobs in the Portland economy. These impacts would be spread out over the three-year period in which the Hotel is under construction.

Putting these impacts in context

We are very familiar with the techniques of economic impact analysis, and how analyses like the one presented in this memorandum are done and reported. Many lack the kind of discussion about techniques and assumptions that we have presented, and are hard to interpret. But part of the difficulty is just the nature of the assignment. In our opinion, these numbers get so big and

distant that they are hard to interpret. It may be clearer for public policy to think about the impacts in a way that is a little simpler and consistent with the techniques described in the memorandum:

- **Does a HQ Hotel bring new business to the Portland region?** This question is fundamental if there are going to be any benefits from investing in the Headquarters Hotel. The answer from the PKF Consulting is yes: at full operation, the Hotel will account for about 150,000 new delegate-days per year. Based on our review of market conditions, we believe that the estimate by PKF Consulting is reasonable.
- **How much more money will get spent in the Portland region because of that new or retained business?** An approximate answer is easily derived from the estimate of new or retained delegate-days. Many studies and casual observation suggest that delegates spend an *average* of about \$250 per day. And event organizers and exhibitors also spend new money in the region, which bumps the impact up to about \$360 per delegate-day. To make the arithmetic simple, let's be conservative and say the amount is \$333 per delegate-day, so that every 3 delegate days generates \$1000 of new spending. Combine that with 150,000 new and retained delegate-days per year generated by the Headquarters Hotel and one gets our estimate in Table 5: \$50 million of new spending per year.

But that is *direct* spending and does not account for multiplier effects. When those are added, the spending roughly doubles, to \$100 million per year.

- **How big a deal is \$100 million per year in the Portland regional economy?** The 2002 Economic Census reports that retail sales alone totaled \$17.8 billion in Multnomah, Clackamas, and Washington counties. While \$100 million is a small share of total sales in the Region, it is still a lot of money. The proper comparison, however, is not with total sales in the Region but with the amount of public investment needed to leverage this \$100 million in annual spending. If the amount of this public investment is less than the present value of \$100 million in annual spending, then the investment yields a return for the Region.
- **Think in terms of a single year, not in present discounted value.** As economists, the proper measure of benefits from the Headquarters Hotel for comparison to the public costs of the Hotel is the present value of the stream of future benefits. But we have found that the concept of discounting to present value is not intuitive for most people. Thus, for the purposes of public decision-making, it seems adequate to frame question as follows: Is it worth spending \$X million dollars of public money now to subsidize the development of a Headquarters Hotel that will generate about \$100 million of new spending per year in the regional economy?
- **What else could be done with funding dedicated to the Headquarters Hotel?** The temptation for many will be to compare the benefits of public funding for a Headquarters Hotel to other public investments that might be made, such as education. The critical issue here, however, is what other uses the funding dedicated to the Headquarters Hotel could be used for. For example, property tax abatements for the Hotel and room tax revenue generated by visitors attracted by the Hotel would not exist but for the Hotel and thus are not available for other uses. In addition, other funds used to support construction of the Headquarters Hotel such as tax increment funds from urban renewal districts often have restrictions that limit their use. Thus, the key question when considering whether an investment in the Headquarters Hotel is worthwhile is what other investments could the funds be used for, and what kind of benefits would those investments return to the Region?

FISCAL IMPACTS OF A HEADQUARTERS HOTEL

Additional spending generated in Portland by events attracted or retained by the Headquarters Hotel will result in additional tax revenue to the State of Oregon, Metro, and the three counties that compose the Portland area.¹⁴ To estimate the amount of tax revenue generated by events attracted or retained by the Headquarters Hotel, we used the estimates of spending shown in Table 2, the allocation of expenditures by county in Table 7, and additional assumptions to convert this spending to a base amount on which the respective tax rates are applied. We used the following assumptions to estimate the base amounts on which taxes are applied:

- **Personal Income Tax:** We assumed that 55% of the new Labor Income reported in Table 8 would be subject to this tax, which has a tax rate of 5.6%. This represents the level of taxable income after deductions and non-taxable income and benefits are deducted from gross income.
- **Hotel Occupancy Tax:** We assumed that 90% of expenditures for Lodging & Incidentals and Staff Living in Table 5 would be subject to this tax. All of this expenditure would be subject to the State tax of 1%, and expenditures in the individual counties would be subject to this tax at the rate in each County.
- **Excise Tax:** Metro charges a 7.5% Excise Tax on revenue received by the OCC. To estimate this revenue, we made assumptions for the share of event expenditures made at the OCC by Event Organizers and Exhibiting Companies (100% of exhibition space, 50% of equipment rental, 50% of additional space, and 20% of services hired, based on expenditure per delegate-days at the OCC only).
- **Business License Fee:** The City of Portland has a Business License Fee that is 2.2% of net business income in the City. For this analysis, we assumed that 90% of output (business sales) in Multnomah County will occur in the City of Portland, and that net business income is 5% of total sales.
- **Motor Vehicle Rental Tax:** Multnomah County levies a tax of 12.5% on motor vehicle rentals in the County. To estimate these expenditures, we used average daily delegate spending on auto rentals reported in the *ExPact 2004 Study* (\$6.66) and applied this to the number of OCC delegate-days.
- **Business Income Tax:** Multnomah County levies a tax of 1.45% on business income in the County, which we assumed is 5% of total Output in the County as reported in Table 8.

The analysis in this section does not include all of the fiscal tax and fee revenue that jurisdictions will receive as a result of operation of the Headquarters Hotel. Visitation and jobs generated by the Hotel, for example, will increase demand for electricity which will generate utility tax revenue to the City. The Hotel will also increase property tax revenues to jurisdictions by increasing property values around the Hotel and by supporting businesses and households that otherwise would not be in the Region (the Headquarters Hotel itself will probably be exempt from property taxes for a period as part of the public participation in the project). We did not include these revenue sources because their relationship to the Headquarters Hotel is indirect and

¹⁴ Those events, and the secondary business activity they generate, will also increase the demands on the services that the tax revenues pay for. This memorandum looks only at tax revenues.

difficult to estimate. We also expect relatively little additional revenue from sources not included in this analysis.¹⁵

Table 12 shows the result of applying these assumptions to the estimated level of spending and economic impacts in this report. Table 12 shows that events attracted or retained by the Headquarters Hotel are expected to generate almost \$3.8 million in tax revenue in 2013 (in 2004 dollars). The majority of this revenue is from the Hotel Occupancy Tax and the State's Personal Income Tax.

Table 12. Tax revenue from expenditures by events attracted or retained by the Headquarters Hotel, 2013 (\$2004)

| Jurisdiction/Tax | Assumption | Input | Tax Base | Tax Rate | Revenue |
|----------------------------|--|--------------|--------------|----------|--------------------|
| State of Oregon | | | | | \$1,464,600 |
| Personal Income Tax | 55% of total labor income | \$41,329,270 | \$22,731,000 | 5.6% | \$1,272,900 |
| Hotel Occupancy Tax | 90% of lodging and staff living expenditures | \$21,296,621 | \$19,167,000 | 1.0% | \$191,700 |
| Metro | | | | | \$107,000 |
| Excise Tax | 100% exhibition space 50% equipment rental; 20% services hired by event organizers at OCC) | | \$1,426,890 | 7.5% | \$107,000 |
| City of Portland | | | | | \$77,819 |
| Business License Fee | 5% of output in City of Portland, which is 90% of output in Multnomah County | \$70,744,663 | \$3,537,233 | 2.2% | \$77,819 |
| Multnomah County | | | | | \$1,925,700 |
| Hotel Occupancy Tax | 81% of lodging expenditures | \$19,167,000 | \$15,525,000 | 11.5% | \$1,785,400 |
| Motor Vehicle Rental Tax | OCC delegate spending on auto rentals (\$6.66 per delegate-day) | | \$666,000 | 12.5% | \$83,300 |
| Business Income Tax | 5% of output in Multnomah Co. | \$78,605,181 | \$3,930,000 | 1.45% | \$57,000 |
| Clackamas County | | | | | \$92,000 |
| Hotel Occupancy Tax | 8% of lodging expenditures in the Region | \$19,167,000 | \$1,533,000 | 6.0% | \$92,000 |
| Washington County | | | | | \$147,600 |
| Hotel Occupancy Tax | 11% of lodging expenditures in the Region | \$19,167,000 | \$2,108,000 | 7.0% | \$147,600 |
| TOTAL ANNUAL IMPACT | | | | | \$3,814,719 |

Source: ECONorthwest.

QUALITATIVE IMPACTS OF THE HEADQUARTERS HOTEL

So far in this report we have focused on the economic impacts of the Headquarters Hotel that we can quantify in terms of spending, income, jobs, and tax revenue. The Headquarters Hotel will have additional impacts that are more difficult to quantify in terms of spending or jobs; this section describes these impacts. A 2005 report by KPMG¹⁶ identified several qualitative economic benefits that the tri-county region would experience from operation of a Headquarters Hotel adjacent to the OCC:

- Enhancing the Portland area's image as a business, meeting, and tourist destination.

¹⁵ In other regions, the bulk of fiscal impacts generated by events at a convention center are from sales tax revenue. Oregon, however, does not have a sales tax.

¹⁶ KPMG. *Economic/Fiscal Impact Analysis for a Proposed HQ Hotel Adjacent to the Oregon Convention Center*. Prepared for Metro E R Commission. July 2005.

- Regional and national exposure through destination marketing and visitation. This will encourage return visits to Oregon for travel and recreation that will generate additional economic impacts in the state.
- Providing a first-class support hotel for the OCC, improving the performance of that asset and the return on the Region's investment in that facility.
- Providing a catalyst for urban redevelopment projects in the Lloyd Center District.

In addition, we would add:

- Supporting new and niche industries in Portland by giving them exposure to national markets.

On this last point, by allowing the OCC to bring more national and international events to Portland, a Headquarters Hotel can allow the OCC to better support new and niche industries in Oregon by showcasing these industries and giving them exposure to national and international markets. For example, attracting a national or international wine-related event could showcase Oregon wineries and give them exposure to potential customers that they otherwise might not have the budget to reach. In this way, the OCC can help the Portland region to transition from old declining industries to new growing industries. Making this transition is critical for continued economic vitality in the Region. Examples of industries that could benefit in this way include craft brewing, high technology, biotechnology, alternative energy, computer security, and food processing.

A recent article in the *Willamette Week*¹⁷ illustrates another point about qualitative economic impacts associated with a Headquarters Hotel. The article claims that Portland has never gotten the NBA All-Star Game because it lacks a Headquarters Hotel near the Rose Garden arena. In addition to the spending by players and visitors that such an event would bring, it would also bring national exposure to Portland through televised shots of the city that would cost millions if Portland were to buy that airtime for advertising.

The Portland region has made substantial investments and efforts to ensure that Portland is an international center of commerce and culture. Examples of these investments and efforts include improvements to Portland International Airport and efforts to attract national and international flights, port facilities and efforts to attract and retain international shipping lines, improvements to major transportation facilities, encouragement of downtown redevelopment, investments in light rail transit, and construction and operation of performing arts, sports, and cultural facilities. The OCC itself is an example of the Region's investments and efforts to ensure that Portland is a center of commerce and culture. The investment in the OCC, however, is not generating the highest return of benefits to the Region because it lacks a Headquarters Hotel. Investing in a Headquarters Hotel will increase the return on the Region's investment in the OCC.

¹⁷ Gerald, Paul. "Ill-Starred: Why Portland Never Gets the NBA All-Star Game." *Willamette Week*. February 15, 2006.