

Warriors Stadium Economics:
Uncertainty and Alternatives

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Executive Summary

In order for the Golden State Warriors (GSW) to move to San Francisco, the City must make significant infrastructure investments in transit and commit to providing over \$6 million in support each year that the new arena operates. Although estimates of the costs to the City and estimates of City revenues exist, a cash flow analysis of this project has not been produced. Nor has the project been subject to a comparison with plausible alternatives. With a project of this magnitude and with the significant external costs imposed on San Francisco, it is deserving of such an analysis.

This report provides both a cash flow analysis of the arena development and a comparison with a plausible alternative. It also provides a discussion of some of the assumed revenues associated with the project. In particular, the assumptions regarding hotel/motel tax revenues and parking taxes are optimistic. The reality could be millions of dollars less than expected.

Although the cash flow analysis suggests that the project will turn a surplus of revenue in the fourth year of arena operations, a comparison with an alternative development suggests that from a financial perspective the City could do much better. If a biotech facility were constructed in place of the arena, it is possible that City revenues over the course of 22 years (two years of construction and 20 years of operation) could be more than \$39.9 million higher in net present discounted value terms, or \$1.8 million per year over 22 years. This comparison is with a conservative investment. With a more aggressive development option, the net present discounted value of revenues could be as much as \$150 million higher, or nearly \$7 million per year.

It is worth noting that the effective subsidy provided by the City of San Francisco to provide transit infrastructure and traffic mediation amounts to roughly \$150 million over the same 22 years, again in present discounted value terms. Were this subsidy not necessary, the Warriors development project would have a revenue impact to the City comparable to that of the more aggressive development option. Unfortunately, the Warriors development project requires the extensive subsidy while a biotechnology center would not. The biotechnology center, whether using conservative or aggressive assumptions, provides greater net revenues to the City of San Francisco than does the development including the Arena, by between \$1.8 and \$7 million per year.

These figures can be thought of as the amount that San Franciscans are paying to bring the Warriors to town. It is the amount of revenues that the City would forgo with the GSW project, relative to a plausible alternative. This is not to say that the project is a bad idea, but merely to point out what is being given up in order to accommodate the Warriors' move.

Key Findings

1. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco of \$96 million. This is net of City expenses of approximately \$150 million during this time for transit and traffic mitigation.
2. This \$150 million of City spending in support of the Arena represents an implicit subsidy to the project. The City is funding transit infrastructure and the mitigation of traffic and transportation issues related to the functioning of the arena.
3. Although the Arena generates significant revenues for San Francisco, the City's costs will exceed its revenues from the development for at least the first three years of Arena operation, putting the taxpayers on the hook for the difference.
4. There are elements of the estimates of City revenues that are filled with uncertainty. In particular, the hotel/motel and parking revenues are highly speculative. This uncertainty may imply a broader burden for City taxpayers.
5. If hotel/motel revenues are overstated by half, which is possible, that would reduce City revenues by \$13.2 million in the first 20 years of Arena operation.
6. If an alternative development, one suited to biotechnology, were pursued, the City's net revenues would be nearly \$40 million higher and possibly as much as \$150 million higher over 22 years, or \$7 million per year.
7. An alternative development would have considerably larger economic impacts for the rest of the San Francisco Economy than would an arena, and would generate significantly more jobs, more than 2,000 on-site. Oracle Arena currently generates just 494 jobs.
8. An alternative development would generate as much as \$1 billion in direct economic activity on-site and perhaps as much as an additional \$1 billion in ancillary benefits to the broader San Francisco economy.
9. Forgoing the biotechnology development and pursuing the Arena reduces net revenues to the City of San Francisco by \$2 to \$7 million per year.

1: Introduction

In 2017, the Golden State Warriors are expected to begin playing in San Francisco. Although this is an exciting development for the City of San Francisco, the economics of the Warriors presence in the City are unclear. There are likely to be significant revenue benefits for the City, but welcoming the Warriors will also involve significant infrastructure investments and ongoing expenses for the City and County of San Francisco. The net effects of these revenues and costs have not been adequately addressed.¹

It is not clear whether San Francisco is importing a lucrative asset or a financial burden; that is, it is not clear whether the revenues associated with the Warriors play in San Francisco exceed the considerable upfront investments that the City must make. It is also an open question as to what exactly the City might be giving up in order to host the Warriors. The 12-acre parcel on which the arena is to be built is a valuable piece of real estate. In 2010, Salesforce paid \$278 million for a 14-acre site that includes the property in question. The property, located as it is across the street from UCSF and near a variety of biotech companies, seems a likely candidate for a biotech friendly building.² Were this to happen, it would yield significant benefits for the City. Whether or not these financial benefits exceed those associated with the Warriors is the subject of this report.

The report proceeds to review the costs and benefits associated with the Warriors, as they have been made public. This is followed by an estimate of the likely benefits of a biotech development occupying the same space. The benefits of the GSW plan are then examined from a perspective of robustness, whether or not they are likely to come to pass.

This report provides a cash flow analysis of the GSW project and compares that analysis with an alternative development that includes a biotechnology-oriented commercial structure in place of the arena. The GSW project is cash flow positive, but not until at least the fourth year of operations. Relative to the alternative development, even after 20 years of operating, the GSW project falls short in terms of net government revenues by approximately \$39.9 million, or \$1.8 million per year over 22 years. Alternative developments, with more aggressive assumptions, though still plausible, suggest that City revenues could increase by as much as \$151.6 million after 22 years, or \$6.9 million per year, without the need for heavy subsidization on the part of the City in the early years. From a purely financial perspective, the GSW project is a significant drain on City revenues relative to what alternative developments might yield.³

¹ Accepting the team also results in a significant revenue hole for the City of Oakland in that most events that currently take place at Oracle Arena are projected to move to the new arena.

² Its neighbors would include UCSF, Celgene Corporation, National Multiple Sclerosis Society, venBio, Nurix, Clovis Oncology, FibroGen, and Illumina, among others.

³ The methodology used in this report is comparable to the methods and assumptions used by EPS in producing its fiscal impact analysis of the GSW arena. The Appendix provides a set of tables that indicate where common assumptions are used.

2: Benefits and Costs of Hosting the Warriors

– Benefits/Revenues

As with any economic activity, there are certainly financial benefits for the City of San Francisco associated with hosting the Warriors. A report has been produced for the City of San Francisco that provides a fiscal analysis of the GSW project.⁴ These benefits are derived from one-time revenues from the purchase of the land and arena construction and ongoing benefits associated with the events that the stadium hosts. The ongoing benefits also include revenues from commercial and retail activity built into the project, as well as parking revenues both on-site and off-site and off-site hotel and motel taxes. Table 1 provides a summary of an estimate of those benefits. Annually, stadium, retail, and office operations associated with the development are estimated to provide just over \$14.1 million in revenues to the City of San Francisco.

Table 1. Summary of San Francisco Revenues from Ongoing Stadium Operations
(Thousands of 2014 dollars)

Annual Project-Generated Revenues	General Fund Revenues	Dedicated and Restricted Accounts	All Accounts
Revenues From on-Site Businesses	\$9,626 (84%)	\$1,883 (73%)	\$11,509 (82%)
Revenues From off-Site Hotels and Parking	\$1,887 (16%)	\$714 (27%)	\$2,601 (18%)
Total Annual Project-Generated Revenues	\$11,513 (100%)	\$2,597 (100%)	\$14,110 (100%)

Source: EPS and Keyser Marston Associates

Of these \$14.1 million in revenues, \$11.5 million are associated with the arena and on-site businesses. Although the majority of these revenues accrue to the general fund (\$9.6 million), nearly \$2 million goes directly to dedicated and restricted accounts. At the same time, nearly \$2.6 million are estimated to be from off-site sources, \$714 thousand of which are destined for dedicated and restricted accounts.

Table 2 provides estimates of detailed categories of revenues associated with ongoing economic activity once the development is completed. The largest categories of revenue include the stadium admission tax (\$4.3 million), gross receipts taxes (\$2.5 million) property taxes (\$2.5 million, including both general fund and MTA revenues), hotel/motel or transient occupancy taxes (\$1.7 million), and parking taxes (\$2.4 million). These five categories account for the vast majority of revenues associated with the development.

As mentioned, there will also be one-time revenues associated with the construction of the arena and the accompanying office and retail space (Table 3). These benefits amount to just over \$27.6 million, the vast majority of which is associated with the TIDF, or Transportation Impact Development

⁴Economic Planning Systems, *San Francisco Multi-Purpose Venue Project - Fiscal Impact Analysis: Revenues*, 9/25/15. (EPS)

**Table 2. Details of San Francisco Revenues from Ongoing Stadium Operations
(2014 dollars)**

Item	Amount
Annual General Revenue	
Property Tax (General Fund)	\$912,000
Property Tax in Lieu of VLF	\$868,000
Sales Tax	\$521,000
Hotel/Motel Tax (General Fund)	\$1,667,000
Parking Tax	\$482,000
Stadium Admission Tax	\$4,336,000
<i>Gross Receipts Tax</i>	
On-site	\$2,431,000
Off-site	\$42,000
Utility User Tax	\$254,000
Subtotal	\$11,513,000
Annual Other Dedicated and Restricted Revenue	
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148,000
Public Safety Sales Tax	\$260,000
San Francisco County Transportation Authority Sales Tax	\$260,000
MTA Parking Tax	\$1,929,000
Subtotal	\$2,597,000
Total Ongoing Revenues	\$14,110,000

Source: EPS, 9/25/15, Table 1

Fee.⁵ Another significant source of one-time revenue comes in the form of a Property Transfer Tax, \$4.2 million. Sales taxes and gross receipts taxes collected during construction add another \$5.4 million.

⁵http://www.sf-planning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf Medical and Health Services, and Retail/Entertainment economic activity categories was increased to \$13.30 per square foot, except that the rate for museums, a subcategory of CIE, are \$11.05 per square foot, a reduction from the current amount. The rate for the Management, Information and Professional Services (MIPS) and Visitor Services economic activity categories was increased to \$12.64 per square foot, and the rate for the Production/Distribution/Repair (PDR) category was reduced to \$6.80 per square foot.

Table 3. Summary of One-Time Revenues from Stadium Construction (2014 dollars)

Item	Difference
City Fees (per gross building sq. ft.)	
Child Care	\$662,000
Transit Impact Development Fee	\$17,436,000
Other One-Time Revenues	
Sales Taxes During Construction	\$2,355,000
Gross Receipts Tax During Construction	\$2,953,000
Property Transfer Tax from Initial Land Sale	\$4,200,000
Total One-Time Revenues	\$27,605,000

Source: EPS, 9/25/15, Table 2. Revised by Marin Economic Consulting to reflect changes in Table A-6 of the EPS report.

— Costs

As with the benefits, there are also one-time and ongoing costs. The one-time costs are primarily those associated with enhancing transportation infrastructure and amount to \$55.3 million.⁶ These costs include Transit Investments (the purchase of light rail vehicles), the installation of crossovers, the construction of a new center boarding platform, power augments to idling event trains, traffic/signals engineering investments, and a Mariposa Street restriping study.

These expenses are spread out over a four-year period, with the vast majority of expenses occurring in the 2016-17 MTA fiscal year. A major expenditure on light rail vehicles is slated to take place in the 2017-18 FY, when the Event Center begins operating. The costs to MTA are heavily loaded in the early years of the project, before ongoing revenues have begun. Estimated one-time revenues will be available during this time to cover expenses, but they will fall short of the total by approximately \$30.2 million.⁷ This difference will be covered by contributions from San Francisco's General Fund, whether all at once or through the financing of these expenditures that are net of revenues.

Table 4 provides the details of the City's estimates of ongoing expenses related to the operation of the Event Center. As of early October, estimated annual net ongoing costs associated with operations at the Event Center amount to \$6.2 million.⁸ The vast majority, \$5.1 million, are associated transit costs. It is worth noting that this estimate has decreased by \$0.4 million between May and

⁶One-time costs are from SFMTA, **Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32**, 10/6/2015. Estimates are in 2014 dollars.

⁷This figure is the difference between \$57.8 million, the total estimated capital uses estimate (not just that allocated to the project), and the total one-time revenues from Table 3.

⁸Ibid. The word "net" is included because the City has estimated revenues from fares and parking from riders going to events at the arena. These revenues amount to approximately \$1.8 million, split roughly evenly between the two sources.

October of this year. Other expenses are reported as they were presented in May, including nearly \$1 million in additional policing, and \$200 thousand in expenses incurred by DPW.

Table 4. Ongoing Costs of the Arena (millions of 2014 dollars)

Agency	May 18 Estimates	October 6 Revisions
SFMTA	\$5.5	\$5.1
SFPD	\$0.9	
DPW	\$0.2	
Total	\$6.6	\$6.2

Source: Golden State Warriors Arena: Event Management
OCII Commission Presentation, May 18, 2015,
and MTA, October 6, 2015.

– Net Benefits

The project comes with considerable costs and benefits. Both upfront net costs and ongoing net revenues are considerable. It is our view that the original EPS report was incomplete in not considering the implications of the project over time. It failed to provide a comparison of overall costs and benefits associated with the GSW project. The reviewer, Keyser Marston Associates, appeared to agree with the EPS approach, saying that a "cash flow approach is appropriate to evaluate a multi-phase project, which does not apply to this project." We respectfully disagree. There are two stages to this project: first, the one-time infrastructure investments and revenue implications of construction and parcel purchase, and second, the ongoing costs and revenues. The project's benefits to the City come inherently in two stages. If both stages yielded a net benefit, the need for a cash flow approach would not be nearly as acute. As the first stage is significantly negative, the overall net benefits must be evaluated over time in order to properly evaluate the project.

This has not been publicly done. Here, we consider a 20-year period following the construction of the Event Center. Given that many of these revenues accrue many years in the future, it is necessary to discount them to today's dollars. The bottom line is the present discounted value of the net stream of revenues to the City of San Francisco.

Assumptions crucial to the present value discount calculation:

1. Discount Rate: 4.0%
2. Rate of inflation: 2.5% (2% for property taxes, as per Proposition 13)

Table 5 provides an estimate of the present discounted value of net revenues to the City of San Francisco, using estimates from the EPS report of September 25, 2015 and from documents from the City of San Francisco. Once the facility has been operating for 20 years, net revenues are ex-

pected to be on the order of \$95.7 million, or approximately \$4.3 million per year over a 22-year period including two years of construction and 20 years of operation. This estimate includes the upfront expenses incurred by the City as well as the ongoing expenses associated with event traffic mitigation.

Table 5. Net Benefits of GSW Event Center Project over 22 years (Millions of Present Discounted 2014 dollars)

	Benefits	Costs	Net Benefits
One-Time	\$27.6	\$55.3	-\$27.7
Ongoing	\$221.4	\$98.0	\$123.4
Total	\$249.1	\$153.3	\$95.7

Source: Calculations by Marin Economic Consulting.

The project pencils out as estimated. This calculus, however, begs two important questions:

1. This is a 12-acre plot of land in the middle of a biotechnology hub. Are there better uses for this land from a revenue perspective?
2. Estimating the costs associated with event management is a more certain endeavor than estimating the benefits. How certain is it that the benefits will materialize?

For a project of this magnitude, it is vitally important to evaluate the potential for plausible alternatives to provide more benefits than the project in question. It is also important to consider robustness tests for the revenues in question. Neither of these issues has been publicly addressed. This report will present plausible revenues associated with an alternative development, a space designed with biotech in mind, and will discuss weak points in the revenue estimates presented above.

3: On the Economics of Biotech as an Alternative

When evaluating the benefits of an economic endeavor, an exploration of alternatives is vital to understanding the full implications of an investment. Suppose that instead of building a 750,000-square-foot arena, the amount of commercial space on the property were doubled. In this section, we consider such an investment. In this exercise, we follow as closely as possible the assumptions contained in the EPS estimate of revenues associated with the GSW project.

Important assumptions associated with this analysis include:

1. Instead of a 750,000-square-foot arena, a commercial facility is constructed that provides 522,000 square feet of space. This constitutes an exact doubling of the commercial space in the GSW plan. This alternative development is otherwise comparable to the Warriors plan, including the original commercial, retail, and parking structures.

2. The space is designed with biotechnology in mind, which brings with it significant laboratory space. As such, it has a relatively high amount of space per worker associated with it: 250 square feet per employee.⁹
3. The transaction price for the land is unchanged at \$172.5 million.¹⁰
4. It is assumed that just two-thirds of the biotech revenues generated onsite are subject to gross receipts taxation in San Francisco.¹¹
5. It is also assumed that a commercial facility would have ancillary benefits in terms of indirect and induced economic activity in San Francisco. Consistent with the EPS report, it is assumed that 90% of the ancillary output generated is subject to the Gross Receipts Tax.¹²

With the addition of these assumptions, an exercise analogous to that undertaken by EPS is performed for the new development. The new development includes the same retail revenues and costs, the same parking revenues, and essentially double the revenues associated with commercial development. Doubling the office space and maintaining other assets leads to an assessed value of at least \$605.5 million. This is considerably less than the project's assessed value with an arena.

Support for the notion that this construction is feasible comes not only from the 750,000-square-foot arena that the buildings will be replacing, but also from a similar planned development. UCSF was planning to build 500,000 square feet on four acres of blocks 33-34, right next to the site.¹³ A new building of the size being considered is clearly feasible on the space currently to be occupied by the arena.

Table 5 presents a comparison of the one-time revenues and expenditures associated with the Event Center versus doubling the commercial space on the 12-acre property. While the Event Center brings with it a need for considerable infrastructure to accommodate the development, it is not clear that a doubling of the commercial space does. Accordingly, the Event Center brings with it a net upfront cost of \$37.5 million, relative to a commercial facility in place of the Center.

⁹This is an extremely conservative assumption. Some estimates suggest that a ratio of 150 to 11 is possible. This would considerably increase employment and hence output at the site, increasing the resulting income to both City residents and City coffers.

¹⁰The actual transaction price has been announced as \$150 million. San Francisco Times, **Warriors buy Mission Bay arena site from Salesforce**, 10/13/2015. In this analysis, the transaction price is kept at \$172.5 million to maintain comparability with the original EPS study. The change in sales price does have an effect on revenue estimates, but the effect is the same for both the Warriors plan and for the alternative, so it does not affect comparisons between the two.

¹¹There are several avenues through which revenues may be exempt from gross receipts taxes in San Francisco. This analysis is extremely conservative in assuming that this is more likely the case for biotechnology firms (perhaps because of significant revenues accruing through pass-through companies) than for firms in other industries.

¹²Estimates of these benefits are derived from the 2013 San Francisco County model of IMPLAN. It should be noted that the EPS report does not provide estimates of the ancillary effects of the commercial aspect of the current project. This report similarly omits those benefits for the existing commercial development, but does include them for the commercial property that could be built in place of the stadium. These ancillary benefits are also reduced by one-half to provide a conservative estimate of the development's contribution to net revenues.

¹³**UCSF, Salesforce in talks for S.F. Mission Bay land deal**, SFGate, March 15, 2014.

Table 5. Summary of One-Time Revenues from Development
(Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Property Transfer Tax	4,200	4,200	0
City Fees - TIDF	10,902	17,436	-6,534
- Child Care	1,263	662	601
Construction			
- Sales Taxes	1,617	2,354	-737
- Gross Receipts Taxes	2,028	2,953	-925
Total	20,010	27,605	-7,595
One-Time Expenses Associated with Development			
Infrastructure Improvements	10,901	55,308	-44,407
Net One-Time Revenues Associated with Development			
Immediate Net Revenue Impact	9,108	-28,410	37,518

Source: EPS Report (9/25/15) and calculations by Marin Economic Consulting.

Although capital expenditures related to the Event Center are significantly higher than the revenues brought in through the TIDF, such is not expected to be the case for additional commercial space. The TIDF was put in place with developments such as this alternative in mind. Therefore, the transit costs associated with the development are better approximated using the TIDF taxation formula. The TIDF collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) will serve as our estimate of related transit costs, \$10,901.

In the analysis above, the sales price for the property on which the event center and accompanying commercial and retail structures will be built is the same as in the EPS report: \$172,546,000. Property transfer tax would result regardless of the purchaser and the end use, but conceivably at a higher price. Salesforce originally paid \$278 million dollars for 14 acres (including the space in question) in 2010. The current sales price is \$172.5 million for 12 acres (actual is \$150 million). The plot of land in question represents the majority of the plot originally purchased by Salesforce, and is the largest single contiguous piece. Property values have also increased substantially since the original purchase by Salesforce.¹⁴ It seems likely then that the value of the land would have increased significantly over the last five years as San Francisco is currently starved for commercial real estate. In the end, the price that the Warriors have paid for the land is surprisingly low. It represents the bulk of a property that was valued at \$278 million in 2010 and market values have only increased in the intervening years. Therefore, the actual market value of the land may well be higher than the price the Warriors have been offered and have paid, with correspondingly higher transfer taxes resulting from some alternative development.

¹⁴Salesforce.com Is Said to Plan Sale of San Francisco Land, Bloomberg Business, March 11, 2014.

Table 6 provides an analysis of the annual City revenues and expenses that can be attributed to each of the projects.¹⁵ The first column is for the alternative development which targets the biotechnology industry. The second column reflects estimates regarding the current Golden State Warriors project, and the final column presents the difference in expected revenue between the two.

Table 6. Summary of Annual Revenues and Expenses (in Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Annual Direct General Revenue			
Property Tax (General Fund)	\$603	\$912	-\$309
Property Tax in Lieu of VLF	\$570	\$868	-\$298
Sales Tax	\$253	\$521	-\$268
Hotel/Motel Tax (General Fund)	\$0	\$1,667	-\$1,667
Parking Tax	\$243	\$482	-\$239
Stadium Admission Tax	\$0	\$4,336	-\$4,336
Gross Receipts Tax			
On-site	\$4,078	\$2,431	\$1,647
Off-site	\$0	\$42	-\$42
Utility User Tax	\$249	\$254	-\$5
Subtotal	\$5,996	\$11,513	-\$5,517
Annual Other Dedicated and Restricted Direct Revenue			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$98	\$148	-\$50
Public Safety Sales Tax	\$127	\$260	-\$133
San Francisco County Transportation Authority Sales Tax	\$127	\$260	-\$133
MTA Parking Tax	\$971	\$1,929	-\$958
Subtotal	\$1,322	\$2,597	-\$1,275
Total Revenues	\$7,318	\$14,110	-\$6,792
Annual Development-Related Expenses			
SFMTA	\$0	\$5,100	-\$5,100
SFPD	\$0	\$900	-\$900
DPW	\$0	\$200	-\$200
Total Expenses	\$0	\$6,200	-\$6,200
Net Annual Revenues	\$7,318	\$7,910	-\$592
Ancillary Benefits Associated with Each Project			
Gross Receipts Tax	\$754	\$0	\$754
Total Annual Net Revenue Expectation	\$8,071	\$7,910	\$162

Source: EPS Report and calculations by Marin Economic Consulting.

In most categories, the annual revenues are greater for the Event Center than for a development with additional commercial space. The exception is in the Gross Receipts Taxes, where a biotech firm occupies the additional commercial space. Taken as a whole, annual revenues from a purely

¹⁵This alternative is chosen because it will allow the use of most of the EPS parameters and assumptions in producing annual revenues for the alternative project. See the Appendix for a comparison of calculations between this project and the EPS report.

commercial development are \$6.8 million less than for the project under consideration. Once the expenses related to the activities at the Event Center are taken into consideration, annual net revenues are nearly identical. However, expanding the commercial element of the development has considerable ancillary benefits. Most economic functions both make purchases from the broader economy and also compensate workers, who then in turn make purchases from the broader economy. The gross receipts taxes associated with output in the San Francisco economy that is related to activities in the additional commercial space are estimated to be \$754,000 per year.¹⁶ Once these benefits have been considered, the commercial development results in \$162,000 more in revenues annually than would the arena (last line of Table 6). From a net revenue perspective, a commercial development dominates the Event Center.

As discussed above, merely calculating the one-time costs and an estimate of the ongoing revenue is insufficient. Were it sufficient, a commercial project focused on biotech would clearly dominate the current project. Table 7 provides an evaluation of the 22-year net benefits of an alternative development with space devoted to biotechnology comparable to the evaluation for the current project.

Table 7. Net Benefits of Alternative Developments after 22 Years
(Millions of Present Discounted 2014 Dollars)

	Biotechnology		Net Benefits		
	Benefits	Costs	Biotech	GSW	Difference
One-Time	\$20.0	\$10.9	\$9.1	-\$27.7	\$36.8
Ongoing	\$126.5	\$0.0	\$126.5	\$123.4	\$3.1
Total	\$146.5	\$10.9	\$135.6	\$95.7	\$39.9

Source: Calculations by Marin Economic Consulting

According to these calculations, an alternative development would provide an extra \$39.9 million in revenues for the City of San Francisco (as in Table 7). Net present discounted revenues for the project with an Event Center are \$95.7 million, while a project with commercial space devoted to attracting biotechnology firms has a discounted value of net revenues expected to be \$135.6 million, a difference of \$39.9 million dollars, or an additional \$1.8 million each year on average over the 22 years.

From a cash flow perspective, there is a deep hole early on with the Event Center. The first three columns of Table 8 present annual present discounted flows of revenues into San Francisco City coffers. The final three columns provide a cash flow, or cumulative contribution to City coffers. Several things are immediately apparent from the table:

1. The Event Center puts an enormous hole in the City's budget in the first year (row 1, column 4).

¹⁶This is half of what is implied by IMPLAN in order to maintain the conservative nature of these estimates.

2. Substituting a commercial development is cash flow positive in the first year (row 3, column 5).
3. It will take four years of operation of the Event Center to dig the City out of the hole (column 6).
4. Although the gap in annual discounted net revenue closes over time, it remains significant even in year 20 (last row, column 4).
5. In year 20 of Event Center operations, there remains a surplus of revenue in the amount of \$39.9 million for the biotechnology development (last row, last column), which continues to grow in subsequent years.

A final issue that differentiates a biotechnology-centric development over an arena is one of economic impact. It is clear from the economics literature that sports stadiums and arenas provide little economic boost to the local economy. At the same time, it is clear that these facilities are responsible for generating some local economic activity. The failure to add to a region's economy is because they tend to displace other entertainment purchases from the broader economy rather than to stimulate new spending. An individual may go to a basketball game instead of to a play, opera, symphony, or rock concert. These facilities are therefore not additive to the economy.

Nonetheless, it has been estimated that economic activity associated with Oracle Arena accounts for \$44.9 million in economic Activity and 494 jobs in Alameda County.¹⁷ It seems likely that the impact of the new arena will be of a similar magnitude.

By comparison, a 522,000 square foot biotechnology facility, with a ratio of space to employee of 250 to 1 can accommodate more than 2,000 employees. That represents four times more employment for biotechnology than for the Arena. It is also consistent with an estimate of economic output on the order of \$1 billion, an order of magnitude higher than for the Arena. Accordingly, the biotechnology development can serve as a much more significant engine of economic growth for the region than can the new event center. Ancillary (indirect and induced) economic benefits for the City of San Francisco are estimated to similarly be in excess of \$1 billion. The gross receipts tax implications for the City of San Francisco are conservatively estimated to be \$754,000 per year.¹⁸

¹⁷Memo to Patrick Soluri, Attorney at Law, from Philip King, Ph.D., regarding Urban Decay Analysis of Proposed Relocation of Golden State Warriors from Oakland to San Francisco, page 9.

¹⁸These estimates are from the 2013 San Francisco County model of IMPLAN and have been scaled to 2014 dollars. The actual estimates of ancillary output generated were divided by two in order to keep the estimates conservative. The actual revenues could be significantly greater.

Table 8. Stream of Net Revenues over Time
(Thousands of 2014 Discounted Dollars)

Year	Annual			Cumulative		
	Biotech	GSW	Difference	Biotech	GSW	Difference
One-Time Net Revenues:						
2016	\$9,108	-\$27,704	\$36,812	\$9,108	-\$27,704	\$36,812
Start of Ongoing Revenues:						
2017	\$7,600	\$7,440	\$160	\$16,708	-\$20,264	\$36,972
2018	\$7,450	\$7,290	\$160	\$24,158	-\$12,974	\$37,132
2019	\$7,302	\$7,142	\$160	\$31,460	-\$5,831	\$37,292
2020	\$7,157	\$6,998	\$159	\$38,618	\$1,167	\$37,451
2021	\$7,016	\$6,857	\$159	\$45,633	\$8,024	\$37,609
2022	\$6,877	\$6,718	\$158	\$52,510	\$14,742	\$37,768
2023	\$6,740	\$6,583	\$157	\$59,250	\$21,325	\$37,925
2024	\$6,607	\$6,450	\$157	\$65,857	\$27,775	\$38,082
2025	\$6,476	\$6,320	\$156	\$72,333	\$34,095	\$38,238
2026	\$6,348	\$6,192	\$155	\$78,681	\$40,288	\$38,393
2027	\$6,222	\$6,068	\$154	\$84,903	\$46,355	\$38,547
2028	\$6,099	\$5,945	\$154	\$91,001	\$52,300	\$38,701
2029	\$5,978	\$5,825	\$153	\$96,979	\$58,126	\$38,854
2030	\$5,860	\$5,708	\$152	\$102,839	\$63,834	\$39,006
2031	\$5,744	\$5,593	\$151	\$108,583	\$69,427	\$39,157
2032	\$5,630	\$5,480	\$150	\$114,213	\$74,907	\$39,307
2033	\$5,519	\$5,370	\$149	\$119,732	\$80,277	\$39,456
2034	\$5,410	\$5,262	\$148	\$125,142	\$85,538	\$39,603
2035	\$5,303	\$5,156	\$147	\$130,444	\$90,694	\$39,750
Year 20 of Event Center operation:						
2036	\$5,198	\$5,052	\$146	\$135,642	\$95,746	\$39,896

Source: Marin Economic Consulting

4: Questioning the Benefits and Costs of the GSW Project

There are few guarantees with economic endeavors. Assuming that the conditions that exist today will exist tomorrow, the day after that, or 20 years from now is of dubious merit. Conditions change. The level of success of a basketball team ebbs and flows (though hopefully not for the Warriors), the economy grows and shrinks, modes of transportation change, and the availability of hotel rooms may decline as demand grows but supply does not.

This certainly holds true for the construction of an arena. While it is quite likely that the Warriors will play at the arena for the foreseeable future and experience a high level of success for some time, it is not certain that the estimated revenues will materialize. As a case in point, the EPS study assumes a sales price for the land of \$172,546,000. It has just been announced that the sales price was \$150,000,000. That represents a reduction in sales price of 13%, with a corresponding reduc-

tion in revenues that are tied to the sales price: transfer taxes and ongoing property taxes. Although the long-term implications of a decline in ongoing property taxes is likely small, the transfer tax is reduced from \$4.2 million to \$3.65 million, a reduction in one-time revenues of \$549,000. Granted, this is just one percent of the one-time transit costs associated with the project, but it is more than half a million dollars no longer available for other city needs.

Two categories of revenue are particularly suspect: hotels and parking. With regard to hotels, it is not immediately clear that moving the venue from Oakland to San Francisco will necessarily lead to a significant increase in demand for hotel rooms in San Francisco. With regard to parking, the demand for parking ebbs and flows with the economy. It is also likely that demand for parking will decline significantly in the coming years. Estimates included in the EPS report are therefore likely biased upward and those revenues will not fully materialize.

– Hotel/Motel Occupancy Tax

There are primarily two concerns related to forecasts of increased demand for hotel rooms in San Francisco resulting from the construction of the Event Center. First, San Francisco hotel occupancy rates for much of the year are very high, implying little excess capacity to be filled by basketball fans. During times of high demand for hotel rooms in San Francisco, many of those staying overnight for an event at the arena may choose to stay outside of the City. Alternatively, the demand resulting from arena events may well divert others to hotel rooms outside of the City. Second, it is also likely that many overnight visitors for the Warriors games currently stay in San Francisco, despite attending a game played in Oakland. Despite the change of venue to San Francisco, it is not clear that this shift will result in a significant net increase in demand for San Francisco hotel rooms.

The EPS estimates of revenues associated with the GSW project indicate an increase in hotel room occupancy. However, San Francisco is generally regarded as having a significant shortage of hotel rooms and to be operating near full capacity. Indeed, occupancy rates for San Francisco are high by any standard. San Francisco ranks third nationally in occupancy rates; New York is ranked #1.

The EPS report assumes that 10% of Event Center attendees are potential overnight visitors but that only half of them will constitute new demand for hotel rooms in San Francisco. This assumption represents an increase in demand for hotel rooms of approximately 50,000. However, it is likely that many current overnight visitors to Oracle Arena stay in San Francisco. It is entirely possible that a new arena will have a much smaller net impact on the demand for hotel rooms in San Francisco. This puts some \$1.7 million in expected additional revenues in question. If half of this demand does not materialize, or is displacement of other demand for hotel rooms in the City, this could reduce overall revenues by half, or by \$800,000 to \$900,000 in each year of operation, amounting to more than \$13 million in present discounted terms over 20 years of arena operation.

– Parking

Going forward, the use of personal vehicles and hence the demand for parking, as well as transit services, is going to be subject to significant disruption. In particular, ride-sharing services continue to grow, especially in San Francisco. With the use of these vehicles, the demand for parking at an event site will likely decline. There is also growing evidence that autonomous vehicles will be available in the near future. Several automobile and tech companies have announced a target date of 2020 for making these cars, or cars with this capacity, available to the general public. The growth of ride-sharing and the development of autonomous vehicles will likely reduce the demand for parking, particularly the demand related to attending events. The advent of autonomous cars being used in car-sharing will significantly increase the rate at which parking demand declines. Current estimates are that the Event Center will result in the demand for parking spaces on the order of 422,000 per year. Some of this demand for parking is likely to evaporate over time.

There could also be a significant decline in the demand for public transportation resulting from increased car-sharing. This has several implications. First, planned investments in infrastructure designed to expand transit availability to serve events may be rendered to some extent obsolete as people move away from transit and toward the use of autonomous vehicles, whether shared or privately owned. This represents a move away from transit toward private vehicles. Despite the projected decline in parking demand, this represents increased need for traffic mitigation of some sort. There will likely be an increase in vehicular traffic to and from the Event Center that could have implications for the arena's neighbors.

With the advent of autonomous vehicles and greater use of ride-sharing services, it is possible that demand for parking could decline significantly over the coming years. If we assume that it declines at a rate of 1% each year, that would reduce revenues associated with parking by \$3.8 million over the 20-year time horizon. It will also reduce parking demand for a biotechnology development, but by less, just \$1.9 million over 20 years. Should parking demand decline more quickly (5%/year), revenues could decline by as much as \$15 million

– Net Benefits

The point of this discussion is that estimated revenues are suspect, while estimated costs are much more likely accurate. Fixed investments, in particular, are known and not subject to market whims. However in this case, there are unknowns lurking in the cost estimates. It is likely that the revenue implications are biased high, resulting in uncertainty over their future stream with more downside risk than upside. It is already the case that actual one-time revenues have turned out to be less than anticipated (such as the transfer tax, which was lower by \$549,000) and that the City has revised its

estimates of one-time costs upward (by nearly \$16 million) and its estimates of ongoing expenses upward (by \$1.4 million in each year). Clearly, there is great uncertainty in almost all of these estimates.

5: Some Sensitivity Analysis

In each case, the revenue estimates relating to the GSW project and the revenue estimates relating to a biotechnology center are uncertain. It is therefore worthwhile to experiment with basic assumptions to better understand the implications for City revenues. Table 9 offers some evidence for the implications of particular assumptions. We provide four separate alternatives that relax in different ways the assumptions inherent in the baseline analysis. The top line of the table presents the baseline results of the analysis, the estimates of present discounted net revenues accruing to the City (corresponding to the last row in Table 7). In the case of the biotechnology development net present discounted revenues are \$135.6 million whereas they are just \$95.7 million for the GSW project, a difference of \$39.9 million.

Table 9. Summary of Net Present Discounted Value Associated with Alternatives (22 Years, 2015-2036) Comparing the Multi-Purpose Venue with a Biotechnology Center (Millions)

Item	Biotech	GSW	Difference	
			Over 22 Years	Per Year
Baseline	\$135.6	\$95.7	\$39.9	\$1.8
Alternative 1	\$135.6	\$82.6	\$53.1	\$2.4
- Hotel/Motel Revenues are overstated by 50% in EPS report		<i>OverBaseline :</i>	\$13.2	
Alternative 2	\$147.0	\$95.7	\$51.2	\$2.3
- Area to employee ratio for Biotech of 200/1		<i>OverBaseline :</i>	\$11.3	
Alternative 3	\$154.5	\$95.7	\$58.7	\$2.7
- Add 200,000 sq ft to New Commercial Space (722,000 total)		<i>OverBaseline :</i>	\$18.0	
Alternative 4 (Extreme)	\$234.2	\$82.6	\$151.6	\$6.9
- Area to employee ratio for Biotech of 150/1		<i>OverBaseline :</i>	\$111.7	
- 100% of Biotech revenues are subject to GRT				
- Hotel/Motel Revenues are overstated by 50%				
- Add 200,000 sq ft to New Commercial Space (722,000 total)				

Source: Marin Economic Consulting

The first alternative scenario assumes that one-half of the demand for hotel rooms in San Francisco fails to materialize with the GSW project. This results in a reduction of approximately \$13.2 million

in net present discounted revenues. The revenues associated with the biotechnology development are unchanged because there are no transient occupancy tax revenues assumed to occur.

The second alternative assumes a greater density of employment in the new commercial facility, leaving the existing commercial plans constant. If there are 200 square feet per employee, rather than 250, revenues associated with the new facility increase by more than \$11.3 million relative to the baseline. This increase in revenue stems largely from an increase in the output produced by the building's occupants, resulting in increased gross receipts tax revenues. It also increases the occupants interactions with the broader San Francisco economy, having a positive impact on ancillary benefits. Further reducing the space per employee will have correspondingly larger increases in revenues.

A third alternative assumes a larger facility is constructed, with 722,000 square feet of space rather than 522,000 square feet of space. This increases the number of employees working in the space by nearly 40%, holding the assumption that 250 square feet per employee is required. With greater space comes increased employment and increased output and increased demand for the output of the rest of the San Francisco economy. Accordingly, revenues are estimated to increase by nearly \$18.0 million with an expanded space. Under this scenario, the net discounted value of City revenues increases by \$58.7 million relative to the GSW project. Even larger spaces would have a correspondingly larger impact on City revenues.

Finally, an extreme alternative is offered. Alternative 4 allows for a 150 to 1 ratio of square feet to employees, assumes that all of the revenues accruing to the biotech occupants are subject to the GRT, reduces by one-half assumed hotel/motel TOT revenues associated with the Event Center, and involves a building with 722,000 square feet. Under this alternative, City revenues increase by \$111.7 million relative to the baseline, with biotechnology revenues exceeding GSW revenues by nearly \$151.6 million over 22 years and \$6.9 million per year.

These alternatives are not put forward to suggest that there is \$151.6 million being left on the table (though there may be), but rather to illustrate the range of differences that underlying assumptions can make. At the same time, even the extreme alternative is plausible.

6: Re-Evaluating the Net Benefits of Hosting the Warriors

There are two fundamental points made in this report:

1. Estimates of costs and revenues are highly speculative, and the evidence suggests that there is more downside risk to the GSW project than upside.
2. There is significant revenue that is forgone by the City in order to bring the Warriors to town.

Both of these points raise significant questions about the Warriors arena project from a financial perspective. First, how comfortable are taxpayers in their understanding of the implications of this development? Second, is this the right development?

The respective answers are "not very" and "quite possibly no." There is uncertainty in the information available and replacing the Event Center in the project with additional commercial space has the potential to increase City revenues significantly.

Another way of thinking about the differences in revenues between the GSW project and a biotechnology development is that these differences reflect the price the City is paying in order to bring the Warriors to town. There are certainly other more tangible costs, but these costs are also real.

The above analysis indicates that even with relatively conservative assumptions, in particular those surrounding employment in the new development and the size of the new development, a biotechnology center would increase City revenues significantly relative to the Event Center. Under the baseline scenario, the difference is \$39.9 million over 22 years. Under the most extreme, yet plausible, scenario presented, an additional \$151.6 million could be raised over the 22-year period. This analysis presents a range of increases of between \$1.8 and \$6.9 million per year. It should be noted that the extreme alternative does not include the possibility of a larger facility. Were it to do so, the forgone annual revenues would be significantly higher. This suggests that the City of San Francisco is likely paying more than \$1.8 million and possibly upwards of \$7 million per year in forgone revenues in each of the next 22 years to accommodate the Warriors.

Every economic development represents a choice. That choice is between the proposed development and plausible alternatives. The City has chosen to pursue a basketball team without exploring or disclosing the relative merits of the project compared with plausible alternatives. This report is not designed to condemn the choice, but rather to better inform the debate on the implications of this choice.

APPENDIX: Details of Annual Revenue Calculations for Biotech in Comparison with the Warriors Project

This appendix provides tables illustrating key differences in the assumptions and results between the analysis presented in the EPS report of 9/25/15 and the biotechnology project discussed in the text. The tables very closely mirror those in the EPS report and reproduce assumptions and results from that report. Some tables are not applicable to the biotechnology project and are omitted. In particular, Tables A-9 through A-11 are omitted. It should also be noted that these tables have not been updated to reflect the actual purchase price paid by the Warriors. It does, however, include updates to the City's estimates of one-time and ongoing costs.

**Table A-1. San Francisco Revenue Summary (Thousands of 2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
Annual General Revenue			
Property Tax (General Fund)	\$912	\$603	-\$309
Property Tax in Lieu of VLF	\$868	\$570	-\$298
Sales Tax	\$521	\$253	-\$268
Hotel/Motel Tax (General Fund)	\$1,667	\$0	-\$1,667
Parking Tax	\$482	\$243	-\$239
Stadium Admission Tax	\$4,336	\$0	-\$4,336
<i>Gross Receipts Tax</i>			
On-site	\$2,431	\$4,078	\$1,647
Off-site	\$42	\$0	-\$42
Utility User Tax	\$254	\$249	-\$5
Subtotal	\$11,513	\$5,996	-\$5,517
Annual Other Dedicated and Restricted Revenue			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148	\$98	-\$50
Public Safety Sales Tax	\$260	\$127	-\$133
San Francisco County Transportation Authority Sales Tax	\$260	\$127	-\$133
MTA Parking Tax	\$1,929	\$971	-\$958
Subtotal	\$2,597	\$1,322	-\$1,275
TOTAL REVENUES	\$14,110	\$7,318	-\$6,792

Source: EPS and Marin Economic Consulting

**Table A-2. San Francisco City One-Time Fee Revenue Summary (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
New Gross Building Area (sq.ft.)		1, 156, 500	
City Fees (per gross building sq.ft.)			
Child Care	\$661, 870	\$1, 263, 240	\$601, 370
Transit Impact Development Fee	\$17, 435, 765	\$10, 901, 655	-\$6, 534, 110
Total Development Impact Fee	\$18, 097, 635	\$12, 164, 895	-\$5, 932, 740
Other In-Lieu Impact Fees			
Other One-Time Revenues			
Sales Taxes During Construction	\$2, 354, 634	\$1, 617, 159	-\$737, 475
Gross Receipts Tax During Construction	\$2, 953, 050	\$2, 027, 835	-\$925, 215
Property Transfer Tax from Initial Land Sale	\$4, 200, 000	\$4, 200, 000	\$0

Source: EPS and Marin Economic Consulting

Note: The gross building area for the biotechnology development includes four commercial buildings with 1,044,000 square feet and retail of 112,500 square feet.

**Table A-3. San Francisco Property Tax Estimates (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
Secured Assessed Value				
Multi-Purpose Venue		\$550,000,000	\$0	\$550,000,000
Other Development				
Event Management/Team Operations Space		\$14,500,000	\$0	\$14,500,000
Retail		\$41,343,750	\$41,343,750	\$0
Office		\$302,760,000	\$605,520,000	-\$302,760,000
Parking		\$33,250,000	\$33,250,000	\$0
Subtotal		\$941,853,750	\$680,113,750	\$261,740,000
New Taxable Value				
Gross Secured Possessory Interest/Property Tax	1.0% of new AV	\$9,418,538	\$6,801,138	\$2,617,400
Unsecured Tax from the Warriors		\$183,333	\$0	\$183,333
Unsecured Tax from Other Uses		\$391,854	\$0	\$391,854
Subtotal		\$9,993,725	\$6,801,138	\$3,192,587
(less) Existing Taxes		-\$1,795,169	-\$1,795,169	\$0
Total		\$8,198,556	\$5,005,969	\$3,192,587
Property Tax				
Tier 1 Property Tax Pass Through	20.00%	\$1,639,711	\$1,001,194	\$638,517
Tier 2 Property Tax Pass Through	16.8%	\$1,377,357	\$841,003	\$536,355
Tier 1 and 2 Property Tax Pass Throughs	36.80%	\$3,017,068	\$1,842,196	\$1,174,872
Net New General Fund Share (after ERAF)	55.59% property tax tier 1 pass through	\$911,515	\$556,564	\$354,952
Special Funds	9.00% property tax tier 1 pass through	\$147,574	\$90,107	\$57,467
SF Unified School District	7.70% property tax pass through	\$232,314	\$141,849	\$90,465
Affordable Housing Set Aside		\$1,639,711	\$1,001,194	\$638,517

Source: EPS and Marin Economic Consulting

**Table A-4. Property Tax in Lieu of VLF Estimates (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
Citywide Total Assessed Value (millions \$)	\$172,489	\$172,489	
Total Assessed Value of Project (millions of \$)	\$941.85	\$680.11	\$261.74
(less) Existing Value	-\$179.52	-\$179.52	
Net Increase in Project Assessed Value (millions \$)	\$762.34	\$500.59	\$261.75
Growth in Citywide AV due to Project	0.442%	0.290%	
Total Property Tax in Lieu of Vehicle License Fee (VLF) (FY2014-15)	\$196,480,000	\$196,480,000	
New Property Tax in Lieu of VLF	\$868,372	\$570,220	\$298,152

Source: EPS and Marin Economic Consulting

**Table A-5. Property Transfer Tax (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech
One-Time Transfer Tax			
Estimated Land Sale		\$172,546,000	\$172,546,000
One-Time Transfer Tax	\$24.34 per \$1,000 value	\$4,199,770	\$4,199,770

Source: EPS and Marin Economic Consulting

Note: The actual transaction price for the property is \$150 million.

**Table A-6. Sales Tax Estimate (thousands of 2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
Taxable Sales from Multi-Purpose Venue				
Warriors Game Concessions and Merchandise	\$21.60 per attendee	\$15,768		
Other Event Concessions	\$11.00 per attendee	\$12,859		
Total		\$28,627		
Sales Tax to General Fund	1.0% of taxable sales	\$286		
(less) Existing Sales Shift		-\$18		
Net New Sales Tax		\$267		
Taxable Sales From Commercial Space				
Retail	\$450 per sq ft	\$50,625	\$50,625	\$0
Sales Tax to San Francisco	1.0% of taxable sales	\$506	\$506	\$0
(less) Shift From Existing Sales		-\$253	-\$253	\$0
Net New Sales Tax		\$253	\$253	\$0
Annual Sales Tax after Shift of Existing Sales				
Sales Tax to the City General Fund	1.00%	\$521	\$253	-\$268
Public Safety Sales Tax	0.50% of taxable sales	\$260	\$126	-\$133
San Francisco County Transportation Authority	0.50% of taxable sales	\$260	\$127	-\$134
SF Public Financing Authority (Schools)	0.25% of taxable sales	\$130	\$63	-\$67
One-Time Sales Taxes on Construction Materials and Supplies				
New Taxable Value		\$941,854	\$680,114	-\$261,740
Supply/Materials Portion of Development Value	50.00%	\$470,927	\$340,057	-\$130,870
San Francisco Capture of Taxable Sales	50.00%	\$235,463	\$170,028	-\$65,435
Sales Tax to San Francisco	1.0% of taxable sales	\$2,355	\$1,700	-\$654

Source: EPS and Marin Economic Consulting

**Table A-7. Transient Occupancy Tax Estimates Estimate (2014 dollars)
The implications of over-estimating hotel and motel occupancy.**

Item	Assumptions	GSW	50% of GSW	Difference
Overnight Attendees in San Francisco for Multi-Purpose Venue Events				
Events per Year		205	205	0
Total Turnstile Attendance		1,899,000	1,899,000	0
Potential Overnight Visitors		189,900	189,900	0
Net New Overnight Visitors	50% (25%)	94,950	47,475	-47,475
Hotel Room Demand	1.90 people per room	49,974	24,987	-24,987
Off-Site Hotel/Motel Room Proceeds	\$238 per-room night	\$11,907,203	\$5,946,868	-\$5,960,335
Total Hotel/Motel Tax Revenue	14% of room revenue	\$1,667,012	\$832,562	-\$834,450

Source: EPS and Marin Economic Consulting

**Table A-8. Parking Tax Estimates (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Assumptions	50% of GSW	Difference
Total Spaces On-Site		950		950	
Parking Revenues On-Site					
Total	\$25 per day	\$8,668,750	\$20 per day	\$6,935,000	
(less) Vacancy	30%	-\$2,600,625	30%	-\$2,080,500	
Total		\$6,068,125		\$4,854,500	
Spaces Off-Site					
Annual Demand (spaces)		\$178,791			\$0
Total Parking Revenue	\$20 per day	\$3,575,821			\$0
San Francisco Parking Tax					
Parking Tax Allocation to Gen'l Fund/Special Projects	25% of annual revenue	\$2,410,987	25% of annual revenue	\$1,213,625	-\$1,197,362
Parking Tax Allocation to Municipal Transportation Fund	20% of tax proceeds	\$482,197	20% of tax proceeds	\$242,725	-\$239,472
	80% of tax proceeds	\$1,928,789	80% of tax proceeds	\$970,900	-\$957,889

Source: EPS and Marin Economic Consulting

Table A-12. Parking Tax Estimates (2014 dollars)
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech	Difference
Arena Utility Cost		\$1,490,000	\$0	-\$1,490,000
Other Uses				
Retail	\$2.87 per sq.ft.	\$322,875	\$322,875	\$0
Office (Including Event Management and Team Operations)	\$2.87 per sq.ft.	\$1,569,890	\$2,996,280	\$1,426,390
Total Annual Commercial Utility Cost		\$3,382,765	\$3,319,155	-\$63,610
Utility User Tax	7.5% of commercial utility cost	\$253,707	\$248,937	-\$4,771

Source: EPS and Marin Economic Consulting