

# memorandum

date July 16, 2019

to Inglewood Basketball and Entertainment Center Environmental Impact Report Administrative Record File

cc Brian Boxer  
Christina Erwin  
Addie Farrell

from Jonathan Teofilo

subject Indirect and Induced Employment Calculations for Table 4-1 of the IBEC Draft EIR

The calculations for indirect and induced employment, described in the Table 4-1 of the IBEC Draft EIR were developed in consultation with Amy Herman of ALH Urban & Regional Economics and Sarah Murley of Applied Economics, LLC, with the use of IMPLAN data. Communications occurred over a series of emails and phone calls, dated between March 21, 2019 and March 25, 2019, all of which are included with this memorandum as attachments.

Attachments 1 and 2 are email communications between Jonathan Teofilo and Amy Herman, clarifying the employment types for which employment generation factors would be needed. Attachment 3 is the message from Sarah Murley to Amy Herman and Jonathan Teofilo, with an attachment providing IMPLAN multiplication rates for indirect and induced employment for the IMPLAN employment types identified in consultation with Amy Herman and Jonathan Teofilo, as being consistent with the employment types included in the proposed project. Jonathan Teofilo used the IMPLAN multiplication factors provided by Sarah Murley to calculate the numbers of indirect and induced jobs created by the anticipated net new direct employment included in the proposed project in the calculation sheet, included as Attachment 4.

## **ATTACHMENT 1**

---

## Jonathan Teofilo

---

**From:** Jonathan Teofilo  
**Sent:** Thursday, March 21, 2019 2:04 PM  
**To:** 'aherman@alhecon.com'  
**Subject:** RE: IBEC - Indirect/Induced Employment  
**Attachments:** Indirect Employment Calculations.xlsx

Amy – The excel file is attached.

**Jon Teofilo**  
Senior Associate Environmental Planner  
ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Amy Herman <aherman@alhecon.com>  
**Sent:** Thursday, March 21, 2019 12:24 PM  
**To:** Jonathan Teofilo <JTeofilo@esassoc.com>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Jonathan, can you send me this as an excel file? I can layer in the multipliers for you. And yes, I think those are good matches.

Amy

---

**From:** Jonathan Teofilo <JTeofilo@esassoc.com>  
**Sent:** Thursday, March 21, 2019 11:21 AM  
**To:** [aherman@alhecon.com](mailto:aherman@alhecon.com)  
**Subject:** RE: IBEC - Indirect/Induced Employment

Good morning Amy,

Brian has taken a closer look at the employment descriptions and input the anticipated IMPLAN Employment type, as well as adding an entry row for Arena Event Employment, as shown below. Are those designations consistent with your understanding of those employment types?

Employment Description	IMPLAN Employment Type	Net New Direct Employment
Arena Operations and Management	Spectator Sport (472)	75
Arena Event Employment	Spectator Sport (472)	225* Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.
Restaurant	Food Service and Drinking Places (481)	112

Retail (Shopping Center/Retail/Arena and Plaza Experience	Miscellaneous Store Retailers (411)	216
Sports Medicine	Other Health Care Services (466)	35
Community Space	Other Support Services (459)	26
Hotel	Hotel and Motel (479)	50

Thanks,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates

916.231.2175 direct

---

**From:** Amy Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>

**Sent:** Wednesday, March 20, 2019 11:10 PM

**To:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>

**Subject:** RE: IBEC - Indirect/Induced Employment

Jon, I talked with Sarah and will be doing some data manipulation for you resulting in job multipliers. I can do this on Thursday afternoon. On the vendors, from research I am doing on the A's I know the vendors tend to be food concessionaires, security, and parking, at least there. Those would fit into some of the categories Sarah already provided, but there is no one size fits all category that would cover all the vendors.

Amy

---

**From:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>

**Sent:** Tuesday, March 19, 2019 4:37 PM

**To:** [aherman@alhecon.com](mailto:aherman@alhecon.com)

**Subject:** RE: IBEC - Indirect/Induced Employment

Thank you, Amy. I received the file and look forward to discussing the numbers with you.

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates

916.231.2175 direct

---

**From:** Amy Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>

**Sent:** Tuesday, March 19, 2019 4:32 PM

**To:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>

**Subject:** RE: IBEC - Indirect/Induced Employment

Jon, I have some preliminary information from her, but I wanted to review it first. But I will forward it to you next and then we can go from there, as some decisions will need to be made. I am about to go on a conference call so after that I can ponder your second question.

Amy

---

**From:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>  
**Sent:** Tuesday, March 19, 2019 4:29 PM  
**To:** Amy L Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Good afternoon Amy,  
Have you received any feedback from your colleague regarding our employment multipliers question?

To build on our previous conversation, Brian and I are also wondering how you would handle employment multipliers for arena event employment. Is there a factor for arena vendors, etc.? If not would a factor for something like theaters be used?

Thanks

**Jon Teofilo**  
Senior Associate Environmental Planner  
ESA | Environmental Science Associates  
916.231.2176 direct

---

**From:** Jonathan Teofilo  
**Sent:** Wednesday, March 13, 2019 11:56 AM  
**To:** 'Amy L Herman' <[aherman@alhecon.com](mailto:aherman@alhecon.com)>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Hello Amy,  
Thank you for running through this information request with me. To follow on our conversation, the anticipated direct employment numbers are reflected in the following table:

	Management, arena maintenance and operations, security, housekeeping
	Staff and management for full-service restaurants
	Flagship team store, quick-service restaurant and coffee shop, and general retail/service and related employees
	Care providers (doctors, nurses, specialists) and business operations staff
	Staff, management, and instructors for flexible community space, meeting rooms/classrooms, and related areas
	Staff and management for limited service hotel

Please let me know if you have any additional questions.

Thank you,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Jonathan Teofilo

**Sent:** Wednesday, March 13, 2019 7:42 AM

**To:** 'Amy L Herman' <[aherman@alhecon.com](mailto:aherman@alhecon.com)>

**Subject:** IBEC - Indirect/Induced Employment

Good morning Amy,

I've been asked to complete our Other CEQA Considerations Chapter analysis for the IBEC EIR. This includes the analysis of indirect and induced employment. We would like to include Multipliers for both of those metrics in our analysis to determine the total employment. We anticipate that IMPLAN datasets would be a likely source. Have you worked with or do you have access to these kinds of multipliers for the project area?

Thanks,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates  
*Celebrating 50 Years of Work that Matters!*

2600 Capitol Avenue, Suite 200  
Sacramento, California 95816  
916.564.4500 main  
916.231.2175 direct  
909.910.9958 mobile  
[jteofilo@esassoc.com](mailto:jteofilo@esassoc.com) | [esassoc.com](http://esassoc.com)

Follow us on [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [Vimeo](#)

## IBEC - Approximate Indirect and Induced Employment

Employment Description	IMPLAN Employment Type	Net New Direct Employment	Indirect	Induced
			Type I Multiplier	Type II Multiplier
Arena Operations and Management	Spectator Sport (472)	75		
Arena Event Employment*	Spectator Sport (472)	225		
Restaurant	Food Service and Drinking Places (481)	112		
Retail (Shopping Center/Retail/Arena and Plaza Experience)	Miscellaneous Store Retailers (411)	216		
Sports Medicine	Other Health Care Services (466)	35		
Community Space	Other Support Services (459)	26		
Hotel	Hotel and Motel (479)	50		
*Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.				

## **ATTACHMENT 2**

---

## Jonathan Teofilo

---

**From:** Amy Herman <aherman@alhecon.com>  
**Sent:** Friday, March 22, 2019 1:12 AM  
**To:** Jonathan Teofilo  
**Subject:** RE: IBEC - Indirect/Induced Employment  
**Attachments:** IBEC multipliers for Select IMPLAN Categories.xlsx

Jon, when I said I could get you back the multipliers, I didn't realize you had somehow selected different IMPLAN sectors than we had estimated earlier. Unfortunately, my colleague Sarah was only in her office one day this week, so I was not able to go back to her to get the necessary data for the IMPLAN sectors you and Brian selected. As a stop gap measure, I am sending you back the original data we prepared, and layered in for you the Indirect and Induced job multipliers, i.e., the numbers you would multiply the direct employment figures by to get indirect and induced employment. This way you can see what they are for these sectors.

I should be able to get the data to match the sectors you and Brian selected early next week, as Sarah will be back then. As a point of interest, what resource were you looking at when you selected those sectors? I ask because I note your hotel sector number is different from the one provided by Sarah, and I know from time to time IMPLAN does change around the sector codes.

I'm sorry I didn't look at your table more closely to realize your sectors did not match the ones we provided. I've been a bit scattered lately.

Amy

---

**From:** Jonathan Teofilo <JTeofilo@esassoc.com>  
**Sent:** Thursday, March 21, 2019 2:04 PM  
**To:** aherman@alhecon.com  
**Subject:** RE: IBEC - Indirect/Induced Employment

Amy – The excel file is attached.

**Jon Teofilo**  
Senior Associate Environmental Planner  
ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Amy Herman <aherman@alhecon.com>  
**Sent:** Thursday, March 21, 2019 12:24 PM  
**To:** Jonathan Teofilo <JTeofilo@esassoc.com>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Jonathan, can you send me this as an excel file? I can layer in the multipliers for you. And yes, I think those are good matches.

Amy

---

**From:** Jonathan Teofilo <JTeofilo@esassoc.com>  
**Sent:** Thursday, March 21, 2019 11:21 AM

To: [aherman@alhecon.com](mailto:aherman@alhecon.com)

Subject: RE: IBEC - Indirect/Induced Employment

Good morning Amy,

Brian has taken a closer look at the employment descriptions and input the anticipated IMPLAN Employment type, as well as adding an entry row for Arena Event Employment, as shown below. Are those designations consistent with your understanding of those employment types?

Employment Description	IMPLAN Employment Type	Net New Direct Employment
Arena Operations and Management	Spectator Sport (472)	75
Arena Event Employment	Spectator Sport (472)	225* Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.
Restaurant	Food Service and Drinking Places (481)	112
Retail (Shopping Center/Retail/Arena and Plaza Experience)	Miscellaneous Store Retailers (411)	216
Sports Medicine	Other Health Care Services (466)	35
Community Space	Other Support Services (459)	26
Hotel	Hotel and Motel (479)	50

Thanks,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Amy Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>

**Sent:** Wednesday, March 20, 2019 11:10 PM

**To:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>

**Subject:** RE: IBEC - Indirect/Induced Employment

Jon, I talked with Sarah and will be doing some data manipulation for you resulting in job multipliers. I can do this on Thursday afternoon. On the vendors, from research I am doing on the A's I know the vendors tend to be food concessionaires, security, and parking, at least there. Those would fit into some of the categories Sarah already provided, but there is no one size fits all category that would cover all the vendors.

Amy

---

**From:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>  
**Sent:** Tuesday, March 19, 2019 4:37 PM  
**To:** [aherman@alhecon.com](mailto:aherman@alhecon.com)  
**Subject:** RE: IBEC - Indirect/Induced Employment

Thank you, Amy. I received the file and look forward to discussing the numbers with you.

**Jon Teofilo**  
Senior Associate Environmental Planner  
ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Amy Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>  
**Sent:** Tuesday, March 19, 2019 4:32 PM  
**To:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Jon, I have some preliminary information from her, but I wanted to review it first. But I will forward it to you next and then we can go from there, as some decisions will need to be made. I am about to go on a conference call so after that I can ponder your second question.

Amy

---

**From:** Jonathan Teofilo <[JTeofilo@esassoc.com](mailto:JTeofilo@esassoc.com)>  
**Sent:** Tuesday, March 19, 2019 4:29 PM  
**To:** Amy L Herman <[aherman@alhecon.com](mailto:aherman@alhecon.com)>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Good afternoon Amy,  
Have you received any feedback from your colleague regarding our employment multipliers question?

To build on our previous conversation, Brian and I are also wondering how you would handle employment multipliers for arena event employment. Is there a factor for arena vendors, etc.? If not would a factor for something like theaters be used?

Thanks

**Jon Teofilo**  
Senior Associate Environmental Planner  
ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Jonathan Teofilo  
**Sent:** Wednesday, March 13, 2019 11:56 AM  
**To:** 'Amy L Herman' <[aherman@alhecon.com](mailto:aherman@alhecon.com)>  
**Subject:** RE: IBEC - Indirect/Induced Employment

Hello Amy,  
Thank you for running through this information request with me. To follow on our conversation, the anticipated direct employment numbers are reflected in the following table:

	Management, arena maintenance and operations, security, housekeeping
	Staff and management for full-service restaurants
	Flagship team store, quick-service restaurant and coffee shop, and general retail/service and related employees
	Care providers (doctors, nurses, specialists) and business operations staff
	Staff, management, and instructors for flexible community space, meeting rooms/classrooms, and related areas
	Staff and management for limited service hotel

Please let me know if you have any additional questions.

Thank you,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates  
916.231.2175 direct

---

**From:** Jonathan Teofilo

**Sent:** Wednesday, March 13, 2019 7:42 AM

**To:** 'Amy L Herman' <[aherman@alhecon.com](mailto:aherman@alhecon.com)>

**Subject:** IBEC - Indirect/Induced Employment

Good morning Amy,

I've been asked to complete our Other CEQA Considerations Chapter analysis for the IBEC EIR. This includes the analysis of indirect and induced employment. We would like to include Multipliers for both of those metrics in our analysis to determine the total employment. We anticipate that IMPLAN datasets would be a likely source. Have you worked with or do you have access to these kinds of multipliers for the project area?

Thanks,

**Jon Teofilo**

Senior Associate Environmental Planner

ESA | Environmental Science Associates  
*Celebrating 50 Years of Work that Matters!*

2600 Capitol Avenue, Suite 200  
Sacramento, California 95816  
916.564.4500 main  
916.231.2175 direct  
909.910.9958 mobile  
[jteofilo@esassoc.com](mailto:jteofilo@esassoc.com) | [esassoc.com](http://esassoc.com)

Follow us on [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [Vimeo](#)

## **ATTACHMENT 3**

---

## Jonathan Teofilo

---

**From:** Sarah Murley <smurley@aeconomics.com>  
**Sent:** Monday, March 25, 2019 3:35 PM  
**To:** aherman@alhecon.com; Jonathan Teofilo; smurley@appliedeconomics.net  
**Subject:** RE: More on IBEC Multipliers, can we have a call?  
**Attachments:** Indirect Employment Calculations.xlsx

Amy,  
I dug down a little deeper and it would appear the IMPLAN is classifying sports arena operators (NAICS 711310) as part of 491 Promoters of performing arts and sports and agents for public figures, so I will use 491 instead of 489. Here is the spreadsheet back that you sent me this morning.

Thanks,  
Sarah

-----  
Sarah Murley  
Principal  
Applied Economics LLC  
11209 N. Tatum Blvd, Suite 225  
Phoenix, AZ 85028  
602-765-2400 tel  
602-765-2407 fax  
www.aeconomics.com

---

**From:** Amy Herman [mailto:aherman@alhecon.com]  
**Sent:** Monday, March 25, 2019 1:25 PM  
**To:** 'Jonathan Teofilo'; smurley@appliedeconomics.net  
**Subject:** More on IBEC Multipliers, can we have a call?

Hi Sarah, Jonathan and I were briefly talking again about IMPLAN multipliers and sectors, and I decided it would be best if we could have a three-way conversation with you, me, and Jonathan. Jonathan and I are both available the rest of this afternoon. Would you have any time to talk this afternoon? If so, please name a time and we will both make it work for us. Let's use my conference call number, which is:

605-475-4000  
1021641 (participant code, or whatever they call it)

Thank you, Amy

Amy L Herman

ALH Urban & Regional Economics  
2239 Oregon Street  
Berkeley, CA 94705  
510.704.1599 T

[aherman@alhecon.com](mailto:aherman@alhecon.com)

---



ALH Urban & Regional Economics

---

The information in this email is intended for the named recipients only. It may contain privileged and confidential matter. If you have received this email in error, please notify the sender immediately by replying to this email. Do not disclose the contents to anyone. Thank you.

## IBEC - Approximate Indirect and Induced Employment

Employment Description	IMPLAN Employment Type	IMPLAN Code	Net New Direct Employment	Indirect and Induced Jobs per Direct Job	
				Indirect Jobs per Direct Job	Induced Jobs per Direct Job
Arena Operations and Management	Spectator Sport (472)	491	75	0.77	0.53
Arena Event Employment*	Spectator Sport (472)	491	225	0.77	0.53
Restaurant	Food Service and Drinking Places (481)	902	112	0.13	0.15
Retail (Shopping Center/Retail/Arena and Plaza Experience)	Miscellaneous Store Retailers (411)	406	216	0.09	0.17
Sports Medicine	Other Health Care Services (466)	481	35	0.19	0.28
Community Space	Other Support Services (459)	470	26	0.32	0.24
Hotel	Hotel and Motel (479)	499	50	0.24	0.28
*Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.					

Direct	Indirect	Induced	Total
4,467,199	3,432,739	2,366,124	10,266,062
4,467,199	3,432,739	2,366,124	10,266,062
10,280,634	1,367,018	1,565,472	13,213,125
18,714,991	1,620,468	3,228,304	23,563,763
10,498,317	2,000,302	2,990,862	15,489,481
12,245,163	3,874,143	2,953,569	19,072,876
7,970,755	1,926,489	2,220,211	12,117,455

## **ATTACHMENT 4**

---

\*Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.

\*Event employment is estimated as net new full time employment, based on maximum event numbers and employees per event type from Table 2-3, assuming 4 hours per event (2 events = 1 work day), 250 work days per year.