

Offshore Outsourcing in the AEC Industry:

Summary of Study Results

October 2008



TABLE OF CONTENTS

Introduction.....2
Key findings.....3
Overview of results.....4
Experience with offshore outsourcing.....6
Benefits of offshore outsourcing.....10
Drawbacks of offshore outsourcing.....11
Short-term intention to offshore outsource.....12
Services most and least likely to be offshore outsourced.....13
Expected discounts.....17
Preferred working arrangements.....18

INTRODUCTION

Offshore outsourcing of production services is a hot topic among AEC firm leaders. Back in 2006, ZweigWhite performed a study on offshore outsourcing AEC related services to get a sense of how common offshore outsourcing is in the industry and what firm leaders think about the topic. Two years later, we wanted to know if anything has changed and what the current state of the industry is. Through this study, we wanted to learn: what experience A/E firms have in offshore outsourcing; their thoughts regarding the benefits and drawbacks of offshoring; their intention to offshore outsource engineering services in the future; what services are most and least suited for offshore outsourcing; what relative price they expect to pay for offshore outsourced services; and what working arrangements they would prefer to have with offshore service providers.

This report captures the results of an online survey we conducted. In total, we had 59 participants. To highlight trends, we compare the results of this study to those from the 2006 study. We also frequently compare data between those with offshore outsourcing experience and those without, to identify any major discrepancies between the two groups. Note that the sample size is different, with 254 A/E firm leaders participating back in 2006.

Although not intended to be a comprehensive survey based on rigorous statistical methodologies, this report provides a glimpse into what firms leaders think about the issue of offshore outsourcing and its potential role in their firm and in the industry.

If you have any questions or comments about this report, please contact Susan Dell Orto at 312-368-6014 or by e-mail at sdellorto@zweigwhite.com

About ZweigWhite- ZweigWhite is the nation's leading source of management consulting, information, and education for the design and construction industry. ZweigWhite brings together experts in strategic business planning, organization, operations, business valuation, ownership transition, human resources, recruitment, finance and administration, information technology, mergers and acquisitions, market research, marketing, project management and project delivery methods. The company serves its clients from offices in Natick, MA; Chicago, IL; and Washington, DC. For more information, please visit www.zweigwhite.com.

PARTICIPANT OVERVIEW

Following is an overview of the participants in this study.

Which of the following best describes your firm overall?

Answer Options	Response Percent
Architecture or Interiors	50.8%
A/E (primarily architecture)	18.6%
Single-discipline Engineering	0.0%
Multi-discipline Engineering (two or more disciplines, but not full-service)	11.9%
Full-service Engineering or E/A (civil, structural, mechanical, & electrical; other services may include architecture, etc.)	16.9%
Other	1.7%

Which of the following staff size categories does your firm fall into?

Answer Options	Response Percent
1 – 24	18.6%
25 – 49	13.6%
50 – 99	25.4%
100 – 249	20.3%
250 – 499	15.3%
500	6.8%

Approximately what percentage of your firm's work is performed for public vs. private clients?

Answer Options	Response Percent
% Public	40%
% Private	60%

What is your title?

Answer Options	Response Percent
CEO/President/Chairman	25%
VP	10%
Principal/Partner	27%
COO	7%
CFO	5%
Director	10%
Other	16%

KEY FINDINGS

Following is an overview of some of the key findings from this study:

- **Offshore outsourcing has become more common in the A/E industry.** While still not conducted by a majority of firms, offshore outsourcing is becoming a more common strategy for A/E firms. In 2006, only 19% of study participants had outsourced offshore. Compare that to this year's study, where 42% had outsourced offshore - a significant increase.
- **The industry is demonstrating a greater openness to the strategy.** Overall attitudes also seem more open to offshore outsourcing. Specifically, when we asked those without offshore outsourcing experience why they had not explored the strategy to date, only 16% said they had never considered offshore outsourcing and 12% indicated they were not interested in offshore outsourcing. Just two years ago, 38% and 34% of that group agreed with those statements, respectively. Another 25% of the group this year indicated they hadn't yet decided not to outsource offshore, up significantly from 14% in 2006.
- **Primary drivers remain consistent.** Those with offshore outsourcing experience remain motivated by the same drivers, such as increasing capacity and achieving lower labor costs- although both of those factors appear to have intensified given the current economic volatility. In 2006, 40% of those with offshore outsourcing experience indicate they were driven by capacity constraints and 47% wanted reduced costs. 67% of this year's group agreed with both of those statements. The ability of in house staff to focus on more strategic issues also heightened in importance, and is recognized more by those with experience as a primary benefit of offshore outsourcing.
- **The majority of production work still remains in house.** The overall percentage of work commonly offshored holds steady between the two studies- most firms offshore outsource less than 10% of total production work.
- **Satisfaction with offshore outsourcing is diminishing.** While a more common strategy, those with offshore outsourcing don't rate their experiences as positively as their counterparts from the 2006 study. This year, only 41% described it as positive, compared to 60% of the previous group. More participants gave a neutral rating while the negative rating remained constant. Also constant is the working arrangement between firms. The majority of firms still prefer a project by project arrangement rather than a more formalized, long-term relationship.
- **A variety of services are in demand.** While partly accounted for by a different sample that includes more architectural firms this year, specific services were in greater demand for offshore outsourcing when compared to last year. These include architectural construction documentation, design development and BIM; mechanical and electrical engineering detailing; plumbing design and analysis; and 3D visualization.
- **Significant cost savings are expected.** The majority of participants- with and without experience- have high expectations for cost savings of at least 30%, with most suggesting discounts would be closer to 50 or 60%.
- **Likelihood to offshore outsource remains tied heavily to past experience.** Perhaps not surprisingly, those with offshore outsourcing experience are far more likely than

those without to offshore outsource in the future. Like our last study, those with experience say there is a reasonable chance they will offshore outsource again in the next year or two. On a scale of 1 to 10, with 1 being 'definitely will not offshore outsource', 5 being 'may or may not offshore outsource', and 10 being 'definitely will offshore outsource', this group provided an average rating of about seven. Those without offshore outsourcing rate this likelihood closer to a three. These anticipated plans are similar those expressed back in 2006.

EXPERIENCE WITH OFFSHORE OUTSOURCING

Have you ever outsourced offshore design services?

Answer Options	2008 Response	2006 Response
No	57.6%	81%
Yes	42.4%	19%

If you have not outsourced offshore in the past, why haven't you?

Answer Options	2008 Response	2006 Response
I want to retain control over document quality	58.1%	54%
I want to support work for American designers and firms	45.2%	49%
I am concerned about the difficulty of integrating cultures	32.3%	32%
I'm not confident it will save me money	32.3%	29%
Communication with the vendor would be too challenging	29.0%	29%
N/A: I have not yet decided to not offshore outsource	25.8%	14%
I don't know how to procure an offshore outsourcing firm	25.8%	18%
Professional licensing restrictions	25.8%	29%
I have no need for offshore outsourcing	22.6%	43%
I'm not confident another firm could deliver work to us faster than we could do it ourselves	19.4%	30%
Prohibitive state regulations make offshore outsourcing too complicated	19.4%	11%
I want to keep our process and ideas confidential	16.1%	17%
I have never considered offshore outsourcing	16.1%	38%
I'm not interested in offshore outsourcing	12.9%	34%
I don't know	3.2%	1%
Other	6.5%	9%
Software used by the company did not meet my requirements	0.0%	3%

If you have outsourced offshore in the past, what drove you to do it?

Answer Options	2008 Response	2006 Response
Had capacity issues and needed additional resources	66.7%	40%
Wanted to reduce internal costs of manpower	66.7%	47%
Desired a faster turnaround than could be produced in house	29.2%	23%
Other	29.2%	0%
To avoid investing in certain equipment, software, or training	4.2%	2%
To improve the quality of documents and analysis	0.0%	2%

Other reasons cited include:

- *To develop international firm-to-firm relationships in pursuit of a geographic market*
- *Client mandate*
- *Staying competitive*
- *Give staff more responsibility*

If you have outsourced offshore in the past, how would you describe your experience?

Answer Options	2008 Response	2006 Response
Neutral	50.0%	30%
Positive	41.7%	62%
Negative	8.3%	8%

If you have outsourced offshore in the past, roughly what percentage of your total production work did you offshore?

Answer Options	2008 Response	2006 Response*
0-5%	50.0%	59%
6-10%	12.5%	16%
11-15%	8.3%	25%
16-20%	12.5%	
21-25%	0.0%	
26%+	16.7%	

**Note: Changes in our questionnaire do not allow for direct comparison between 2006 and 2008.*

If you have outsourced offshore in the past, what services did you seek?

Answer Options	2008 Response	2006 Response
Architecture- Schematic design	12.5%	4%
Architecture- Design development	33.3%	4%
Architecture- Construction documentation	70.8%	6%
Architecture- Building Information modeling	16.7%	2%
Interiors- Schematic design	4.2%	2%
Interiors- Design development	4.2%	2%
Interiors- Construction documentation	4.2%	2%
Interiors- Building Information modeling	0.0%	2%
Structural Engineering- Design and analysis (e.g. Structural steel, reinforced concrete, structural analysis)	16.7%	13%
Structural Engineering- Detailing	12.5%	19%
Structural Engineering- Building Information modeling	4.2%	2%
Mechanical Engineering- Design and analysis (e.g. Heat, vent, air, ductwork, controls)	16.7%	4%
Mechanical Engineering- Detailing	16.7%	9%
Mechanical Engineering- Building Information modeling	4.2%	0%
Electrical Engineering- Design and analysis (e.g. Power supply, lighting, telecom)	12.5%	6%
Electrical Engineering- Detailing	12.5%	4%
Electrical Engineering- Building Information modeling	4.2%	0%
Plumbing Engineering- Design and analysis (e.g. Water, sewage, steam)	12.5%	4%
Plumbing Engineering- Detailing	12.5%	9%
Plumbing Engineering- Building Information modeling	4.2%	0%
3D visualization	29.2%	6%

If you have outsourced offshore in the past, what type of working arrangement did you have with the offshore service provider?

Answer Options	2008 Response	2006 Response
A project by project arrangement (i.e., hired the offshore outsourcing firm on a project basis to complete a single project/job)	75.0%	70%
Had a firm retained for a specific period of time (i.e., retained and paid a dedicated team from the offshore outsourcing firm to provide services for a certain period of time)	16.7%	15%
Created a formal partnership (i.e., set up a legal entity with the offshore supplier to predominantly service our business)	4.2%	15%
Other	4.2%	0%

BENEFITS OF OFFSHORE OUTSOURCING

What do you perceive to be the major benefits of offshore outsourcing?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
Reduced costs	75.0%	81%
Allows staff to focus on more strategic issues	58.3%	19%
More timely work	33.3%	51%
Frees in house staff from working on a function that is not a core competency	12.5%	27%
Other	12.5%	8%
Higher quality work	8.3%	11%
Gain access to expertise and/or software and equipment not found in house	8.3%	22%
Not sure of the benefits	4.2%	3%
I received no benefits from offshore outsourcing	4.2%	5%

Participants *without* experience:

Answer Options	2008 Response	2006 Response
Reduced costs	77.4%	66%
Not sure of the benefits of offshore outsourcing	38.7%	34%
More timely work	29.0%	14%
Allows in house staff to focus on more strategic issues	25.8%	22%
Gain access to expertise and/or software and equipment not found in house	22.6%	7%
Frees in house staff from working on a function that is not a core competency	16.1%	17%
Other	3.2%	10%
Higher quality work	0.0%	2%

DRAWBACKS OF OFFSHORE OUTSOURCING

What do you perceive to be the major drawbacks of offshore outsourcing?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
Poor/difficult communication with the vendor	50.0%	38%
Quality of documents was poor	33.3%	27%
Other	33.3%	5%
Difficulty integrating cultures	25.0%	24%
Difficulty exchanging documents	16.7%	8%
Software used by the company did not meet my requirements	16.7%	3%
None	16.7%	27%
Did not save me money	4.2%	8%
Insufficient client attention by the vendor	4.2%	11%
Documents were delayed	4.2%	11%
Breaches of confidentiality	0.0%	3%
I don't know	0.0%	5%
Prohibitive state regulations made offshore outsourcing too complicated	0.0%	3%

“Other” responses include:

- *Longer than expected time required to get offshore firm to understand expectations and deliver on them*
- *Difficulty sending payments to vendor*
- *Learning curve to realize what role each party has to play to get a good result*

Participants *without* experience:

Answer Options	2008 Response	2006 Response
Lack of control over the quality of work	83.9%	74%
Potential for poor/difficult communication with the vendor	74.2%	71%
Potential difficulty integrating the different cultures	45.2%	53%
Work may be delayed/turnaround may not be faster than we could produce in house	45.2%	43%
Not guaranteed to save me money	45.2%	47%
Insufficient client attention by the vendor	35.5%	38%
Possible difficulty exchanging documents	29.0%	32%
Exposing details of our business and confidentiality issues	29.0%	28%
Prohibitive state regulations can make offshore outsourcing too complicated	25.8%	23%
Software used by the company may not meet my requirements	12.9%	18%
Other	6.5%	9%
I don't know	3.2%	6%
None	0.0%	1%

SHORT-TERM INTENTION TO OFFSHORE OUTSOURCE

How likely is it that you will outsource offshore engineering services in the next 12 to 24 months?

Participants *with* experience:

Answer Options	2008 Rating	2006 Rating
12 months	7.08	7.07
24 months	7.7	8.15

Participants *without* experience:

Answer Options	2008 Rating	2006 Rating
12 months	3.03	2.84
24 months	3.45	2.54

SERVICES MOST & LEAST LIKELY TO BE OFFSHORE OUTSOURCED

What services are you ***most*** likely to outsource offshore in the future?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
Architecture- Schematic design	12.5%	7.4%
Architecture- Design development	45.8%	7.4%
Architecture- Construction documentation	83.3%	18.5%
Architecture- Building Information modeling	29.2%	7.4%
Interiors- Schematic design	8.3%	3.7%
Interiors- Design development	16.7%	3.7%
Interiors- Construction documentation	29.2%	11.1%
Interiors- Building Information modeling	12.5%	3.7%
Structural Engineering- Design and analysis (e.g. Structural steel, reinforced concrete, structural analysis)	16.7%	22.2%
Structural Engineering- Detailing	16.7%	48.1%
Structural Engineering- Building Information modeling	12.5%	22.2%
Mechanical Engineering- Design and analysis (e.g. Heat, vent, air, ductwork, controls)	20.8%	3.7%
Mechanical Engineering- Detailing	20.8%	22.2%
Mechanical Engineering- Building Information modeling	8.3%	11.1%
Electrical Engineering- Design and analysis (e.g. Power supply, lighting, telecom)	16.7%	3.7%
Electrical Engineering- Detailing	16.7%	18.5%
Electrical Engineering- Building Information modeling	4.2%	11.1%
Plumbing Engineering- Design and analysis (e.g. Water, sewage, steam)	12.5%	0%
Plumbing Engineering- Detailing	12.5%	18.5%
Plumbing Engineering- Building Information modeling	4.2%	7.4%
3D visualization	41.7%	11.1%
None of these	0.0%	11.1%
Other	8.3%	44.4%

Participants *without* experience:

Answer Options	2008 Response	2006 Response
Architecture- Schematic design	0.0%	3.3%
Architecture- Design development	9.7%	3.9%
Architecture- Construction documentation	32.3%	7.2%
Architecture- Building Information modeling	19.4%	2.6%
Interiors- Schematic design	6.5%	2.6%
Interiors- Design development	6.5%	3.3%
Interiors- Construction documentation	19.4%	3.3%
Interiors- Building Information modeling	9.7%	2.6%
Structural Engineering- Design and analysis (e.g. Structural steel, reinforced concrete, structural analysis)	3.2%	13.8%
Structural Engineering- Detailing	16.1%	23.0%
Structural Engineering- Building Information modeling	3.2%	6.6%
Mechanical Engineering- Design and analysis (e.g. Heat, vent, air, ductwork, controls)	6.5%	3.9%
Mechanical Engineering- Detailing	19.4%	6.6%
Mechanical Engineering- Building Information modeling	9.7%	5.3%
Electrical Engineering- Design and analysis (e.g. Power supply, lighting, telecom)	6.5%	3.3%
Electrical Engineering- Detailing	19.4%	5.9%
Electrical Engineering- Building Information modeling	9.7%	4.6%
Plumbing Engineering- Design and analysis (e.g. Water, sewage, steam)	6.5%	3.3%
Plumbing Engineering- Detailing	19.4%	5.9%
Plumbing Engineering- Building Information modeling	9.7%	3.9%
3D visualization	38.7%	15.1%
None of these	29.0%	55.3%
Other	12.9%	19.1%

What services are you *least* likely to outsource offshore in the future?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
Architecture- Schematic design	75.0%	51.9%
Architecture- Design development	37.5%	51.9%
Architecture- Construction documentation	8.3%	33.3%
Architecture- Building Information modeling	20.8%	25.9%
Interiors- Schematic design	58.3%	44.4%
Interiors- Design development	45.8%	44.4%
Interiors- Construction documentation	29.2%	29.6%
Interiors- Building Information modeling	20.8%	29.6%
Structural Engineering- Design and analysis (e.g. Structural steel, reinforced concrete, structural analysis)	29.2%	37.0%
Structural Engineering- Detailing	20.8%	14.8%
Structural Engineering- Building Information modeling	20.8%	22.2%
Mechanical Engineering- Design and analysis (e.g. Heat, vent, air, ductwork, controls)	25.0%	51.9%
Mechanical Engineering- Detailing	20.8%	33.3%
Mechanical Engineering- Building Information modeling	16.7%	29.6%
Electrical Engineering- Design and analysis (e.g. Power supply, lighting, telecom)	25.0%	51.9%
Electrical Engineering- Detailing	20.8%	33.3%
Electrical Engineering- Building Information modeling	16.7%	29.6%
Plumbing Engineering- Design and analysis (e.g. Water, sewage, steam)	20.8%	48.1%
Plumbing Engineering- Detailing	25.0%	33.3%
Plumbing Engineering- Building Information modeling	20.8%	29.6%
3D visualization	12.5%	18.5%
None of these	8.3%	18.5%
Other	4.2%	14.8%

Participants *without* experience:

Answer Options	2008 Response	2006 Response
Architecture- Schematic design	67.7%	25.0%
Architecture- Design development	58.1%	21.7%
Architecture- Construction documentation	19.4%	16.4%
Architecture- Building Information modeling	19.4%	17.1%
Interiors- Schematic design	61.3%	19.7%
Interiors- Design development	54.8%	18.4%
Interiors- Construction documentation	25.8%	16.4%
Interiors- Building Information modeling	22.6%	15.8%
Structural Engineering- Design and analysis (e.g. Structural steel, reinforced concrete, structural analysis)	41.9%	39.5%
Structural Engineering- Detailing	16.1%	24.3%
Structural Engineering- Building Information modeling	3.2%	20.4%
Mechanical Engineering- Design and analysis (e.g. Heat, vent, air, ductwork, controls)	32.3%	21.7%
Mechanical Engineering- Detailing	9.7%	16.4%
Mechanical Engineering- Building Information modeling	3.2%	15.8%
Electrical Engineering- Design and analysis (e.g. Power supply, lighting, telecom)	29.0%	24.3%
Electrical Engineering- Detailing	9.7%	18.4%
Electrical Engineering- Building Information modeling	3.2%	17.1%
Plumbing Engineering- Design and analysis (e.g. Water, sewage, steam)	25.8%	20.4%
Plumbing Engineering- Detailing	9.7%	15.8%
Plumbing Engineering- Building Information modeling	6.5%	13.8%
3D visualization	6.5%	11.2%
None of these	25.8%	34.2%
Other	0.0%	19.7%

PRICING & EXPECTED DISCOUNTS FOR OUTSOURCED OFFSHORE SERVICES

On an average hourly rate basis, at approximately what discount would you expect to receive design services from an offshore outsourcing firm?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
More	0.0%	0.0%
About the same	0.0%	0.0%
10% less	4.2%	3.7%
20% less	8.3%	3.7%
30% less	16.7%	14.8%
40% less	12.5%	29.6%
50% less	37.5%	22.2%
60% less	20.8%	14.8%

Participants *without* experience:

Answer Options	2008 Response	2006 Response
More	0.0%	1.3%
About the same	3.2%	1.3%
10% less	0.0%	1.3%
20% less	0.0%	5.9%
30% less	22.6%	15.1%
40% less	25.8%	9.2%
50% less	25.8%	34.9%
60% less	12.9%	10.5%

PREFERRED WORKING ARRANGEMENTS

What model of offshore outsourcing (e.g., project basis, retainer, partnership models) would you prefer?

Participants *with* experience:

Answer Options	2008 Response	2006 Response
A project by project arrangement (i.e., hire the offshore outsourcing firm on a project basis to complete a single project/job)	79.2%	66.7%
Retain a firm for a specific period of time (i.e., retain and pay a dedicated team from the offshore outsourcing firm to provide services for a certain period of time)	20.8%	11.1%
Create a formal partnership (i.e., set up a legal entity with the offshore supplier to predominantly service our business)	8.3%	25.9%
I don't know	4.2%	0.0%
N/A I would not offshore outsource again	0.0%	3.7%
Other	4.2%	3.7%

Participants *without* experience:

Answer Options	2008 Response	2006 Response
A project by project arrangement (i.e., hire the offshore outsourcing firm on a project basis to complete a single project/job)	58.1%	44.4%
Retain a firm for a specific period of time (i.e., retain and pay a dedicated team from the offshore outsourcing firm to provide services for a certain period of time)	9.7%	5.9%
Create a formal partnership (i.e., set up a legal entity with the offshore supplier to predominantly service our business)	3.2%	3.9%
I don't know	22.6%	34.6%
Other	6.5%	11.1%