

June 15, 2010

Stephen J. Wiehe, President and Chief Executive Officer
SciQuest, Inc.
6501 Weston Parkway, Suite 200
Cary, North Carolina 27513

**Re: SciQuest, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed June 4, 2010
File No. 333-165720**

Dear Mr. Wiehe:

We have reviewed the above-referenced filing and the related response letter dated June 4, 2010 and have the following comments. If indicated, we think you should revise your document in response to these comments. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated May 27, 2010.

General

1. We note that in June 2010 you will terminate the Exit Event Bonus Plan and pay cash bonuses to your executives upon your initial public offering in lieu of issuing shares of common stock under the plan. Please disclose this bonus amount on your prospectus cover page and in your summary or advise why this disclosure is not warranted. To the extent that the cash bonuses will be paid out of your offering proceeds, please provide disclosure in the use of proceeds section.

Risk Factors

“Our customers are concentrated in our targeted vertical markets, which could make us vulnerable to adverse trends or events affecting those markets. The occurrence of any such adverse trends or events in our vertical markets could adversely affect our business,”
page 13

2. Within this risk factor, as well as risk factor disclosure on page 11, you describe significantly different risks for each of your targeted vertical markets. We note your disclosure on page 80 that “over 80% of [y]our customers currently come from the higher education and life sciences vertical markets.” The risks faced by these, and the healthcare and state and local government markets, would seem to

pose different levels of overall risk to your business due to the difference in relative importance of each vertical market to your business. Tell us what consideration you have given to increasing the transparency of the relative risks to your business as a result of your customer concentration on an expanded quantitative basis. In this regard, while 80% of your customers are in the higher education and life sciences markets, the relative importance of each component remains unclear. Nor is it clear if the number of customers has any correlation with the amount of revenue attributable to the vertical market that is subject to the risks described.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview, page 38

3. We are considering your response to prior comment 3. We understand from your prior responses that you “do not have four separate and distinct solutions.” We note, however, that discussion of your target vertical markets is pervasive throughout your description of your business, suggesting that your management is very focused on these markets in assessing the performance of your business. With a view towards providing investors with a view of the company “through the eyes of management,” please explain why you do not believe disclosure of revenue, or other measures attributable to each vertical market, would be useful to investors in understanding the material opportunities, challenges and risks to your business. For example, refer to the last paragraph on page 1. We note that “based on [y]our own internal analysis, [you] believe that [y]our current addressable market is approximately \$1.0 billion within [your] current target markets as follows: higher education (\$324 million), life sciences (\$292 million), healthcare (\$176 million) and state and local government (\$244 million.)” You also state that “the broader supply procurement and sourcing application chain management market is growing at an 8% compounded annual growth rate.”

- Tell us whether, and how, management measures the company's performance in each of these target markets.
- If management measures performance in each of these target markets, provide us with a quantitative summary of the performance of each market in each period presented.
- Tell us what consideration has been given to disclosing such performance measures in order that investors may have a better understanding of the company's future growth prospects in each “addressable market.”
- Tell us whether each of your current target markets have similar growth rate trends, and if not, how they differ.

For guidance please refer to SEC Release No. 33-8350.

Critical Accounting Policies

Stock-Based Compensation

April 2010 Grants, page 47 and 48

4. We are considering your response to prior comment 4. Tell us the amount of the change in aggregate equity value under the initial public offering scenario that was attributable to the increase in multiples in your April 2010 valuation as compared to the January 2010 valuation. Further, explain the impact of changing the revenue forecast from the “trailing 12 months revenue as of the estimated future date of an initial public offering” to your “forecasted fiscal year 2010 revenue.” In this regard, you should disclose whether a change in your revenue assumptions also impacted your valuations. In addition, indicate the impact of reducing the discount rate from 35% to 28% on this valuation.

Customers

Customer Case Studies, page 69

5. We refer to prior comment 20 and note your added disclosure regarding the Scripps Research Institute. Please confirm, if true, that this entity has agreed to the use of their information in your registration statement.

Executive Compensation

Compensation Discussion and Analysis

Other Compensation, page 86

6. Please revise your document to include a description of how the amount of the cash bonuses to be paid to your executive officers upon your initial public offering in lieu of issuing shares under the Exit Event Bonus Plan will be determined. Where applicable, describe any formula to be used. See Item 402(b)(1)(v) of Regulation S-K.
7. As a related matter, please disclose on an individualized basis the amount of the cash bonuses that will be paid to each of your named executive officers upon your initial public offering. In this regard, we note that your disclosure on page 96 regarding the loan forgiveness related to the bonuses to be paid in lieu of Exit Event Bonus Plan. It would appear from this disclosure that you are able to identify the executive officers who will receive a cash bonus upon completion of your initial public offering.

Stephen J. Wiehe
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Notes to Financial Statements

Note 13. Subsequent Events (unaudited), page F-27

8. Revise to include a discussion of your intent to terminate your Exit Event Bonus Plan in June 2010 and to pay cash bonuses to your executives upon your initial public offering (see your page 85). Disclose the significant terms of the revised plan and indicate an estimated amount to be paid out.

You may contact Tamara J. Tangen, Staff Accountant, at (202) 551-3443 or, in her absence, Stephen G. Krikorian, Accounting Branch Chief at (202) 551-3488 if you have questions regarding comments on the financial statements and related matters. Please contact Ryan Houseal, Attorney-Advisor at (202) 551-3105 or me at (202) 551-3735 with any other questions.

Sincerely,

Barbara C. Jacobs
Assistant Director

cc: Via Facsimile: (404) 365-9532
Grant W. Collingsworth, Esq.
Seth K. Weiner, Esq.
Morris, Manning & Martin, LLP