

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA**

PUBLIC RESOURCE.ORG)
)
Plaintiff)
)
v.)
)
INTERNAL REVENUE SERVICE,)
)
Defendant.)

Case No: 3:13-cv-2789

SECOND DECLARATION OF DWAYNE ROSS

I, Dwayne Ross, pursuant to the provisions of 28 U.S.C. § 1746, declare as follows:

1. This declaration is made to supplement my prior declaration in this proceeding, which is incorporated herein by reference.
2. My prior declaration referenced a draft Basis of Estimate (BOE) Report prepared in support of the Administration's Budget Proposal as Exhibit 105.
3. The procedures used in developing the BOE, and described in detail in the BOE Report and my prior declaration, followed the protocols in *The GAO Cost Estimating and Assessment Guide*, available online at <http://www.gao.gov/assets/80/77175.pdf>, which sets out in detail the best practices that federal agencies should follow when making cost estimates.
4. As explained in greater detail in the BOE Report and my prior declaration, these procedures were consistent with the basic characteristics of credible cost estimates, including 1) participation of stakeholders in defining system parameters and other characteristics; 2) use of relevant, historical data from

similar systems to project costs of new systems; 3) use of a standard estimate [work] breakdown structure to help ensure that no portions of the estimate were omitted; and, 4) identification of uncertainties and allowance developed to cover the cost effect.

5. As the lead estimator, I was supported by staff experienced in the program's major areas, who are identified in Table 2-1 on page 7 of the BOE Report.
6. As described on pages 7 and 10 of the Report, I utilized the SEER for Software parametric model to estimate the cost of developing software to extract Form 990 data from the batch files containing multiple electronically-filed returns of various types received by the Service in a given weekly cycle, redacting personal information from it, storing the redacted files in a repository that could be made publically accessible, and developing a user interface that would allow these forms to be accessed over the internet.
7. SEER for Software, developed by Galorath, Inc., is a commercial off-the-shelf (COTS) software application used throughout the federal government and industry to estimate the resources required for software development projects.
8. Inputs to SEER include software size and five "knowledge base" inputs: 1) development platform, 2) application type, 3) acquisition method, 4) development method, and, 5) development standard. SEER for Software uses the combination of inputs to project an expected level of productivity based on industry data. Estimation Program Office estimates are calibrated by changing the default

settings associated with the knowledge base selections to reflect the IRS environment. Table 10-2 on page 27 of the BOE Report provides the default parameter overrides that are normally applied on vision and strategy phase estimates and were used for hosting the Form 990 data on in a repository that could be made publicly available.

9. Based on historical data for the Service, SEER calibration resulted in an effective productivity of 473 Source Lines of Code (SLOC) per person-month.
10. I applied the function point methodology to size the application that would be needed to extract 990 data, transform it to redact personal information, and store the redacted 990 files in a publicly accessible repository. Using the standard International Function Point User's Group (IFPUG) counting rules that apply varying multipliers to different types of functions, I estimated the application would have nine transactions for a total of 57 unadjusted function points.¹ This figure is approximately equivalent to 3,000 SLOC based on a Java gearing factor of 52 SLOC per function point, obtained by multiplying the gearing factor of 52 by the 57 unadjusted function points.
11. The methodology applied by the SEER Software conforms with the GAO's best practices cited above.
12. It is customary in the field of cost estimation, and compliant with the GAO standards cited above, to crosscheck estimates with actual costs for similar

¹ The draft report mistakenly refers to the nine functions as "function points."

projects. Input from specialists from the On-line Services organization projected a likely cost of about \$2 million. The above inputs accounted for the ability to utilize some existing code for portions of certain processes such as extracting Form 990 data from the batch file. Adjusting for the associated savings results in a figure of 1,278 effective lines of code.

13. As noted in my prior declaration and on page 10 of the Report, I estimated that developing the software necessary for automated retrieval, redaction, and hosting of Form 990 data would cost approximately \$ 2 million.

14. The \$ 2 million figure was based both on the \$ 2 million estimate by On-Line Services and comparison to a similar project completed in 2011, which allowed for automated extraction by the IRS of portions of the information reported on individual income tax returns. The comparable project had an actual cost of \$ 2 million, which did not include any costs for public user access through the internet or otherwise, only for extracting the necessary information and storing the extracted information.

15. Accounting for the additional complexity associated with processing the three Forms 990, it was estimated that the cost for the comparable aspects involved in the budget proposal was greater than, but still within 10%, of the \$ 2 million cost for the comparable project.

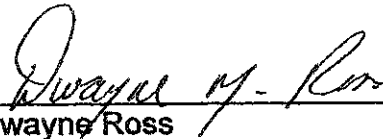
16. Based on estimates provided by the SEER Software, it was estimated that making the hosted data available to outside users would require an additional

investment of \$646,000 in user portal design costs and \$497,000 in network augmentation costs, on top of the \$ 2 million estimate.

17. The \$ 2 million estimate itself would thus not vary if the information were only accessed internally; while it included the costs of storing the information in a repository that could be made publically accessible, it did not include the additional \$1.1 million necessary to network the repository to the internet and create the portal for outside users to access the data.
18. My prior reference to "hosting" the data on a "public website" was not intended to include these additional costs.
19. As noted in my prior declaration, the \$ 2 million estimate does not include a portion of \$2.8M in overhead costs in the form of infrastructure, deployment, and management costs shared with other components of the Administration's proposal that serve to enable the electronic filing of Form 990-T, which currently cannot be electronically filed.
20. Not including the proposal to extract, redact, and save Form 990 data would reduce these shared costs due to the reduction in overall scope of the project.
21. When preparing the above estimates, I was not aware that they might be relevant to any pending or future litigation.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed this 29th day of October, 2014.



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