

Reifer Consultants LLC Software Economics Newsletter

Happy New Year – Reifer Consultants LLC, its principals and its staff wishes all of you a happy new year. May you be healthy, wealthy and wise.

Sad News – I was sorry to learn that one of the long-time leaders in the field of software engineering, Ed Yourdon, passed this month. Those of us who knew and worked with him will miss him.

Jan/Feb 2016 Edition of Software Benchmarking Report to be issued -

The first release of our Software Benchmarking report for 2016 was released earlier this month. *These benchmarks are used by many of our clients to compare their performance against definitive standards and their competition.* This release of our benchmarking report contains the following changes:

- We have condensed the early material in Chapters 1 and 2 and made it more readable.
- Chapter 6, benchmarking process and participants, was published as a separate report in order to reduce the size of the documents.
- All productivity and cost figures have been updated to reflect the results of our analysis of the fully populated 2005 through mid-2015 benchmark data set.
- Trend information related to the benchmark data set was updated to be current using the method of moving averages.
- All of our quality ratings have been updated to reflect our most current data on software reliability, maintainability and fitness for use.
- Our watch list containing technologies that can impact each of our application areas has been updated based on subscriber inputs.

Based on comments received from subscribers, we will neither split our Benchmarking report into two editions; i.e., commercial and defense, nor use function points as our primary size driver for commercial applications. In addition, some of the other improvements that we plan to make in our next edition include:

- Summary materials will be condensed even further and more graphics will be used to highlight trends.
- More details on how the data varies (mean, 25th, 50th, 75th, and 90th percentiles) will be shown.
- More details on development stage only productivity, cost and quality will be included in the defense edition.

Benchmarks will continue to be published twice a year in the January/February and June/July timeframes. These reports will be sold on an annual subscription basis. Substantial university, government and not-for-profit discounts are available. If you would like information about how to subscribe to our software benchmarking service, please contact us at info@reifer.com.

New Agile White Papers Released – During the last six months, the following three reports were for public consumption:

- **Software Benchmarks and Benchmarking** – This white paper describes the software benchmarking process and provides readers with a list of benchmark providers. It basically provides an update to the material that was included as Chapter 6 in our Software Benchmarking Report.
- **CMMI® and Agile: the Good, the Bad, and the Ugly** - This white paper discusses when and how to use process frameworks like the CMMI in concert with agile-at-scale software developments. It also explains what conflicts exist between the two approaches and recommends ways to resolve them.

- ***Agile Introduction: Are You a Laggard*** - Using hard data from 330 organizations, this report shows that most of those organizations surveyed that are using agile are no longer in the transformation stage. Agile methods are now the preferred SDLC across all industries, and government groups lag industry in adoption outside of the UK by five to seven years.

All of these and our other publications are available to non-benchmark subscribers for a nominal fee at <http://www.reifer.com/products>.

Web Site Blog Updated – If you have not visited our web site, you should as it is continuously updated. Besides providing materials of interest, it contains postings that provide new information on our findings. While the current blog continues to focus on agile quality, updates are planned in other areas.

Chance to Participate in New Software Defect Research Studies – We are looking for software defect data for the system integration and test phase of the project life cycle. Such data is generated to validate system functionality, interfaces and performance when hardware and software are integrated and tested together typically in embedded applications, i.e., defense systems like aircraft avionics and commercial systems like embedded medical devices controlled by software, i.e., pacemakers and other cardiac monitoring devices. For those who supply sufficiently detailed data, we will provide detailed but masked results including summaries of the data itself. The software defect data we are looking for includes the following:

- Software defects found during software testing as a function of test time including number, date found and fixed, and criticality.
- Software defects found during system integration & test as a function of test time including number, date found and fixed, and criticality.
- Software defect backlog during system integration & test as a function of test time including number, age, criticality, and reason for carry-over.

Where:

- Criticality is defined per the following five levels: (1) defects that prevent mission-essential capability or jeopardize safety, (2) defects that adversely affect mission-essential capability or technical, cost, or schedule risk and have no workaround, (3) defects that are the same as (2) but for which a workaround exists, (4) defects that pose an inconvenience or annoyance, and (5) trivial defects.

Note: If your criticality levels are different from those requested, you can still participate in the study by providing your defect information along with its levels and definitions for those scales.

Software Estimating Workshops Continue to be Well Received – Our recent offerings of our software estimating workshops in Asia, Australia and Europe were highly successful. Audiences liked the real-world case studies we used to show how to tailor agile and lean approaches to agile-at-scale projects. Both defense and commercial cases are available. Segments on project planning, estimating, and management are used to highlight differences between agile and traditional approaches.

Our most popular offerings include this and the following others: essential software economics, large-scale software project management, managing agile development, modern metrics and measurement, and software estimation for agile projects. For those interested, please contact us at don@reifer.com.

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