PhilEd Data - Philippines

**Short Term Consultant**

## Scope of Work – Systems Developer - EBEIS

# **Consultant Name**: TBD

**Affiliation/Base**: RTI International

**Objective of Consultancy**: Provide application and systems development support to Enhanced Basic Education Information Systems (EBEIS) modules and functionality

**Expected Start Date**: October 1, 2012

**Expected Completion Date**: March 29, 2013

**Level of Effort:** 520 hours (65 person days)

**Technical Assistance**:

The PhilEd Data Project is a technical assistance program in partnership with DepED, USAID ([www.usaid.gov](http://www.usaid.gov)), and RTI International ([www.rti.org](http://www.rti.org)). RTI is providing assistance to help build the capacity of the Philippine Department of Education (DepED) in several key technical areas related to data analysis and use. Highest priority is accorded to helping DepED make better use of existing data; generate and extract maximum value from new data; and build capacity for ongoing data generation, management, and analysis.

One of the components of the PhilEd Data project pertains to the **development of instruments and report cards on school and learner performance.** The intention is to consolidate data from the Enhanced Basic Education Information Systems (EBEIS) and results from the National Achievement Tests (NAT) to create concise, useful reports that can provide information for school-, district, and division-level planning, monitoring and decision-making. RTI will work with DepED to develop data tools that can be customized to their needs.

The Systems Developer will work closely with the EBEIS team to develop specific reporting, data entry and data management modules to enhance the functionality of the EBEIS that will enable the automated production of standardized report cards and customized analyses for end users at each level. This work will build off developments to date with respect to the existing EBEIS modules, including the web-based reporting system and the statistical bulletin.

**Specific tasks:**

* **EBEIS reporting modules:**
  + Develop functionality in the EBEIS to automate the production of standardized reports that incorporate a combination of graphical, tabular and localized content on a single report card instrument (1-page, front and back) for school-, district-, LSB- and division-level users (see Appendix A, mock-up school report card, for reference)
  + Develop graphical presentations of data that includes comparisons and benchmark data (by levels, standards and across years) from the existing EBEIS indicators and reporting modules
  + Develop reporting modules for indicators not currently available in the EBEIS including pupil : textbook/pupil ratios, teacher performance, and learner performance (NAT/NCAE MPS and quartile distribution scores)
* **Data management / entry modules:**
  + NAT/NCAE tables incorporating additional variables including quartile distribution of NAT/NCAE scores

(Learning Outcomes)

* + Data tables and data entry module in the GESP (Government Elementary School Profile) and GSSP (Government Secondary… ) for core subject textbooks (Math, Language/Reading (MT, Filipino and English), Science and HeKasi)
  + Modifications to the Personnel Services form to: a) push to school-level users, and b) incorporate additional data fields, including (i) academic qualification, (ii) subject specialization, (iii) class load, and (iv) overall CB-PAST rating

(Personel Services)

* **Security protocols for data transmission and management**
  + Develop security protocols as needed / requested, including VPN firewall, encryption technology or other appropriate means

**Expected deliverables:**

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| 1. Task plan for development of modules/ reporting systems | October 12, 2012 |
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| 1. Data management / entry modules ready for beta testing | December 30, 2013 |
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| 1. Reporting modules including standardized report cards ready for field testing | January 11, 2013 |
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| 1. Finalized data entry/management modules | April 1, 2013 |
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| 1. Finalized reporting modules | March 29, 2013 |
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| 1. Security protocols established | March 29, 2013 |

**Required / Desirable Knowledge:**

* Knowledgeable in MVC framework and object oriented programming (OOP)
* Knowledgeable and highly skilled in web development tools particularly PHP, Symfony, AJAX, HTML, JAVA Script, CSS style sheets, iChart, iReport/JasperReports, SCM (CVS or GIT or SVN)
* Knowledge in relational database management systems
* Knowledge of systems analysis and design methodologies
* Knowledge in basic network administration, linux adminstration, apache httpd and mysql.

**Required/Desirable Experience:**

* At least 5 years experience in the development and implementation of web-based and database managed systems.
* At least 5 years experience in developing web-based application systems using the abovementioned technologies (PHP, AJAX, HTML, JAVA Script, CSS style sheets, iChart, SCM)
* At least 2 years in using Symfony, linux, apache httpd and mysql.
* At least 1 year experience on using iReport/JasperReports or any related reporting tool similar to iReport/JasperReport.
* Experience in working well with a team and providing technical guidance/assitance in an ICT development setting.
* Experience in development and implementation of government and/or education-related applications.
* At least 2 years experience in training system users, providing technical support on a large scale (e.g. nationwide) system implementation or operationalization.