



REQUEST FOR PROPOSAL

INTEL SCIENCE TALENT SEARCH (STS) EVALUATION PORTAL

Version 1.0

March 1, 2012

Issued by:

Society for Science & the Public

1719 N Street, NW

Washington, DC 20036



SUBMISSION OF PROPOSALS

Responses to this RFP are due by 11:59 PM Sunday March 25. Late submittals will be rejected.

Proposals should be submitted as ***a single PDF document via email*** to the manager of the RFP process:

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Society for Science & the Public
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The selection of the successful Contractor will be made based on SSP's evaluation and determination of the relative ability of each Bidder to deliver quality service in a timely, cost-effective manner.

The Selection below will be evaluated and must be addressed in the proposal.

Society for Science & the Public is not obligated to accept the lowest bid and reserves the right to reject any and all bids or amend the scope of the project. All of the Bidders must be duly licensed or otherwise have the ability to perform work in accordance with all governing local authorities and to the satisfaction of those authorities.

Any questions regarding this RFP should also be addressed to the above individual. Contractors may not contact other executives, managers or employees of Society for Science & the Public without permission of the manager of the RFP process.

SELECTION CRITERIA

Bidder is to address the following subjects in the response.

1 COMPANY HISTORY AND ORGANIZATION

Provide a brief company history, mission statement and organizational summary. Explain ownership (private or public) and include brief biographical information regarding the personnel who would be directly responsible for the management and supervision of this project. Also include years in business, number of employees, location, markets/industries served and specializations.

2 MANAGEMENT APPROACH

Describe in detail how your firm will be organized to manage this project. Indicate by position or title the person who will have the overall responsibility for the Society for Science & the Public account. Indicate the support staff available to this project manager by function. Bidder must supply an Organization Chart depicting the structure of the servicing project manager and support. Indicate value-added features or programs not covered elsewhere in the response which are offered to enhance your firm's ability to effectively manage this project.

3 TIMEFRAME

The system will have to be fully tested and functional by the end of August 2012. Indicate your ability to meet the timeframe. Key dates are as follows:

- March 25th: RFP Responses due
- March 31st: Vendor selection made & contract executed
- April 5-6th, 2012 – Kickoff/Project Introduction
- April-May 2012 – System Development
- June-July 2012 – System Testing
- August 2012 – User Acceptance Testing & Bug Fixes
- August 31, 2012 – Production Deployment
- November 16, 2012 – Entrant Application deadline
- November 10-30, 2012 – Evaluator Registration and Assignment
- December 1-20, 2012 – Evaluation & Judging

4 PROPOSED SOLUTION

Please describe your proposed plan to meet the Detailed Description of Proposed System listed below. Specify your development platform, testing platform, and your intended deployment platform.

5 COST

Please supply a firm fixed-cost estimate. Please break down costs into phases and/or value-add features.

6 REFERENCES

Provide at least three (3) client references and example apps whose complexity is comparable in size and type to this application. Include company name, address, contact person, and contact number.

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INTRODUCTION

PROJECT SCOPE

This RFP addresses the creation of an online system for use of Society for Science & the Public (SSP) Staff and Intel Science Talent Search (STS) Evaluators and Judges for the purpose of supporting the process of evaluating all Intel STS applicants.

ORGANIZATION BACKGROUND

The Intel Science Talent Search

The Intel Science Talent Search (STS) is the nation's most prestigious science research competition for high school seniors. Since 1942, first in partnership with Westinghouse and since 1998 with Intel, SSP has provided a national stage for the country's best and brightest young scientists to present original research to nationally recognized professional scientists.

The Intel STS encourages talented U.S. high school seniors to pursue independent research in science, math, engineering, and medicine. Seven alumni of the program—the nation's oldest and most highly regarded pre-college science contest—have been selected as Nobel Laureates.

Over eight decades, more than 144,000 students from U.S. high schools in all 50 states, DC and several US territories have completed independent science research projects and submitted entries. Each completed entry consists of a written description of the student's independent research, plus an entry form that elicits evidence of the student's excellence and accomplishments. Over 2,800 finalists have received more than \$11.2 million in awards to support their college educations, and thousands of semifinalists have received millions more.



Society for Science & the Public

Society for Science & the Public (SSP) is a nonprofit 501(c) (3) membership organization dedicated to public engagement in scientific research and education. Our vision is to promote the understanding and appreciation of science and the vital role it plays in human advancement: to inform, educate, and inspire.

Founded as Science Service, since 1921 SSP has through its award-winning publications and world-class science education competitions conveyed the excitement of science and research directly to the public.

SSP is proud to continue to convey the world of science to our global community. Educating and informing students, parents, teachers and the greater community about the evolving and influential world of science, we inspire the endless possibilities they have to offer.

OPERATIONAL BACKGROUND

The first year that Intel STS applications were accepted online was 2010. In prior years, the applications were all submitted via hard copy. This workflow existed for decades, and the technology to support this workflow is still limited. The current evaluation system relies on a DOS/DBASEIII system built in-house in the 1980s and early 1990s, from which some data is extracted into MS Access for reporting. In 2011, while the applications were submitted in electronic format initially; these submissions had to be printed for the purposes of the evaluation of the applicants, and the data input for evaluation occurred onto paper and then had to be data-entered into the evaluation system. Our goal this year is to convert this process into an electronic review system the 125 scientific reviewers to self-register and evaluate entries and for SSP staff to be able to manage the process smoothly.

OVERVIEW OF DESIRED FUNCTIONALITY

The functionality of the requested system will include:

- Evaluator registration & communication
- Entrant management
- Evaluator viewing and scoring of entrant applications
- SSP administration functionalities including:
 - o managing evaluator recruitment
 - o assigning evaluation work
 - o monitoring progress of evaluation
 - o tabulation of scoring
- Import/export of data from this STS Evaluation Portal to two other systems which are used by Entrants and Members

This will take place on a secure web-based portal that ensures the privacy of evaluators, the students and the scoring of their papers.

DESCRIPTION OF PROPOSED SYSTEM

BUSINESS PROCESSES

STS Entrant Application

Most entrants work with supervising scientists at local universities, institutions, and science-related companies to carry out a research project. Some do so through formal high school programs offered at those locations while others initiate contact with a specific scientist on their own. Others perform research through their school or at home (when safety allows).

The unique requirement for this competition is that the student must imagine the question, design the experiment, obtain data, and formulate conclusions independently. Any research project completed by or with another high school student is not eligible for this competition. Entries in the Intel Science Talent Search are submitted via an online application, with the exception of school transcripts, which must be mailed.

Components of the application are managed as follows:

1. Responses to short answer and essay questions are entered directly into the online application system.
2. The Research Report, Institutional Review Board approval (for human subjects), and International Animal Care and Use Committee approval (for non-human vertebrate animal exceptions) are uploaded to the online application system by entrants as Word documents or PDFs.
3. Requests for teacher recommendations, project recommendations, and school reports are sent out via e-mail by the online application system at the request of the entrant. Teachers, mentors, and counselors receive a unique PIN and password to complete and submit forms online, with the option to upload letters of recommendation.
4. Official student transcripts and test scores are accepted only in paper copy, provided in a sealed envelope signed by a counselor or administrator.

Evaluation, and Judging, and Awards

Approximately 1,800 Intel STS applications each year are first checked for eligibility, including meeting the application deadline, completing every portion of the application, qualifying as a contestant, and passing human subject and vertebrate animal tissue research rules review. Eligible Intel STS entrants are then evaluated and scored by a highly dedicated committee of over 100 eminent scientific professionals. Each qualified entrant's application and project is scored by three evaluators, who are scientists in the field relevant to their projects. Scoring is based upon the entrants' online application questions, grades, test scores and recommendations as well as the Research Project Report to assess the overall scientific potential of the entrant.

The top 300 entrants are named semifinalists and are then reviewed again by a panel of distinguished scientists from a variety of disciplines. Each year in late January, from among the 300 semifinalists, 40 finalists are announced. Each finalist will attend the Intel Science Talent Institute in March in Washington, D.C. to compete for top awards.

USER TYPES

Entrant

An entrant applies to be considered for the Talent Search through the SSP Hobsons ApplyYourself website. This data is then exported for Staff, Evaluators and Judges to review.

Staff

Staff will need to manage the evaluator and scoring data, including assignment of papers and reporting on progress of evaluation.

Evaluator

An evaluator is a volunteer who will be assigned by category to review papers in their field, typically ranging 40-60 papers each.

Judge

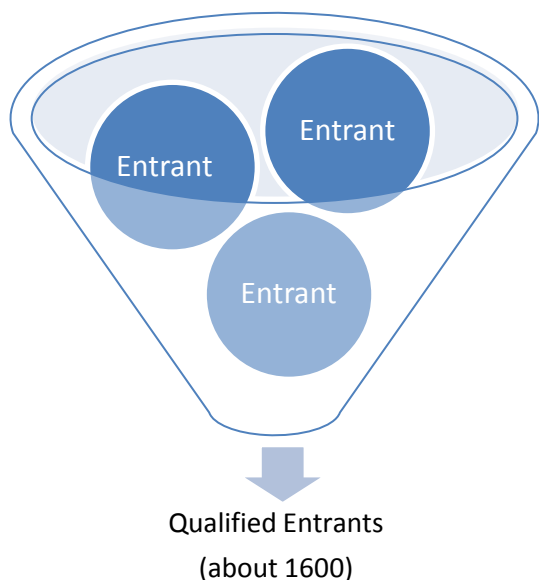
A judge is a volunteer who will review the top 400 or so papers to help select the top 300 semifinalists and 40 finalists.

Administrator

An administrator will have the ability to manipulate data and users for the system.

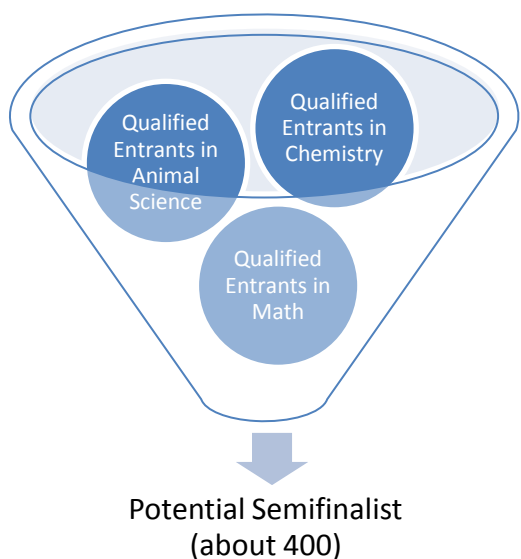
TALENT SEARCH PROCESS FLOW

1. ENTRANTS



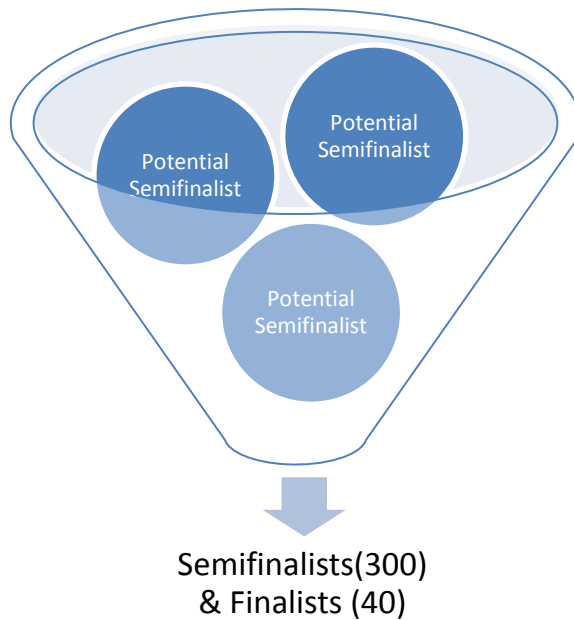
There were about 1800 entrants to the Intel Science Talent Search in 2011. The entry deadline is mid-November each year. Approximately 10% were removed from the pool by Staff before Evaluation due to rules issues. These entrants are referred to as Fail to Qualify (FTQ).

2. EVALUATION



From the pool of qualified entrants, they are divided up into categories (such as Animal Science, Chemistry, Mathematics, etc) by Staff. Then, over a 5-day period in late November, each entrant is then scored by three evaluators in their category. Overall, there are about 125 evaluators each year across about 15 categories. Occasionally, additional entrants are eliminated as FTQs who are removed from the pool during Evaluation. The results of the Evaluator's scoring are tabulated into a list of approximately the top 400 potential semifinalists.

3. JUDGING



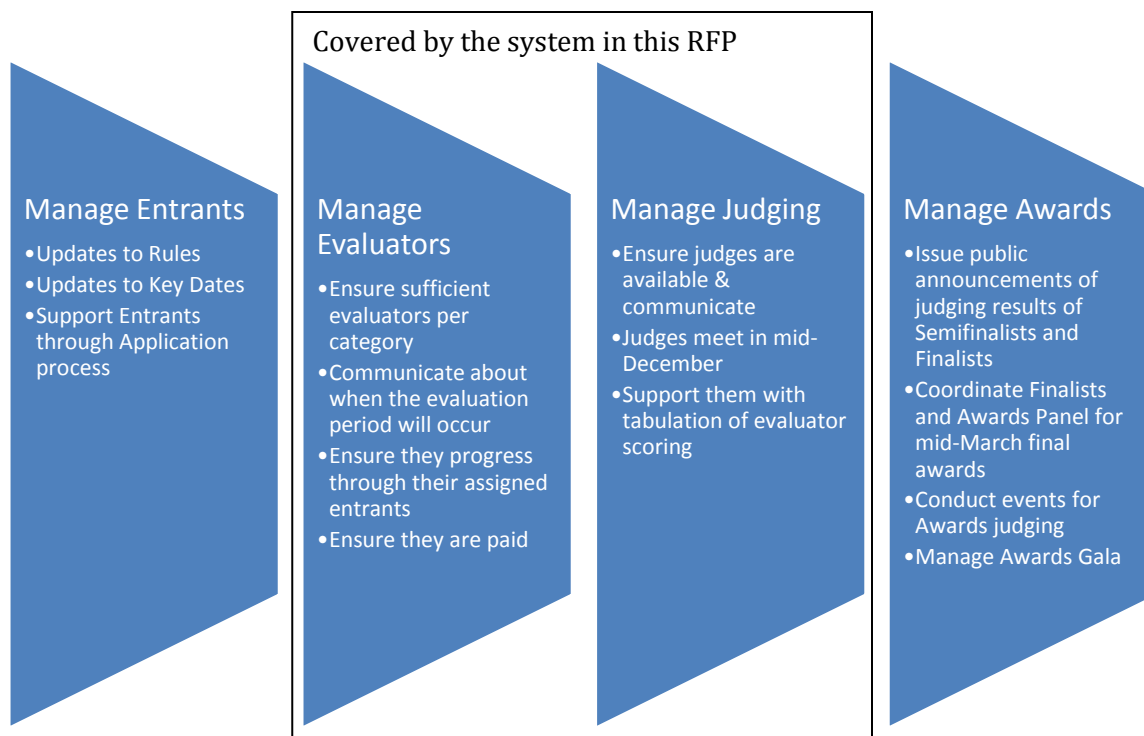
A panel of judges then reviews the potential semifinalists and decides on the list of 300 who will be announced officially in mid-January. In late January, the list of 40 Finalists is announced, who are invited to Washington DC.

4. AWARDS



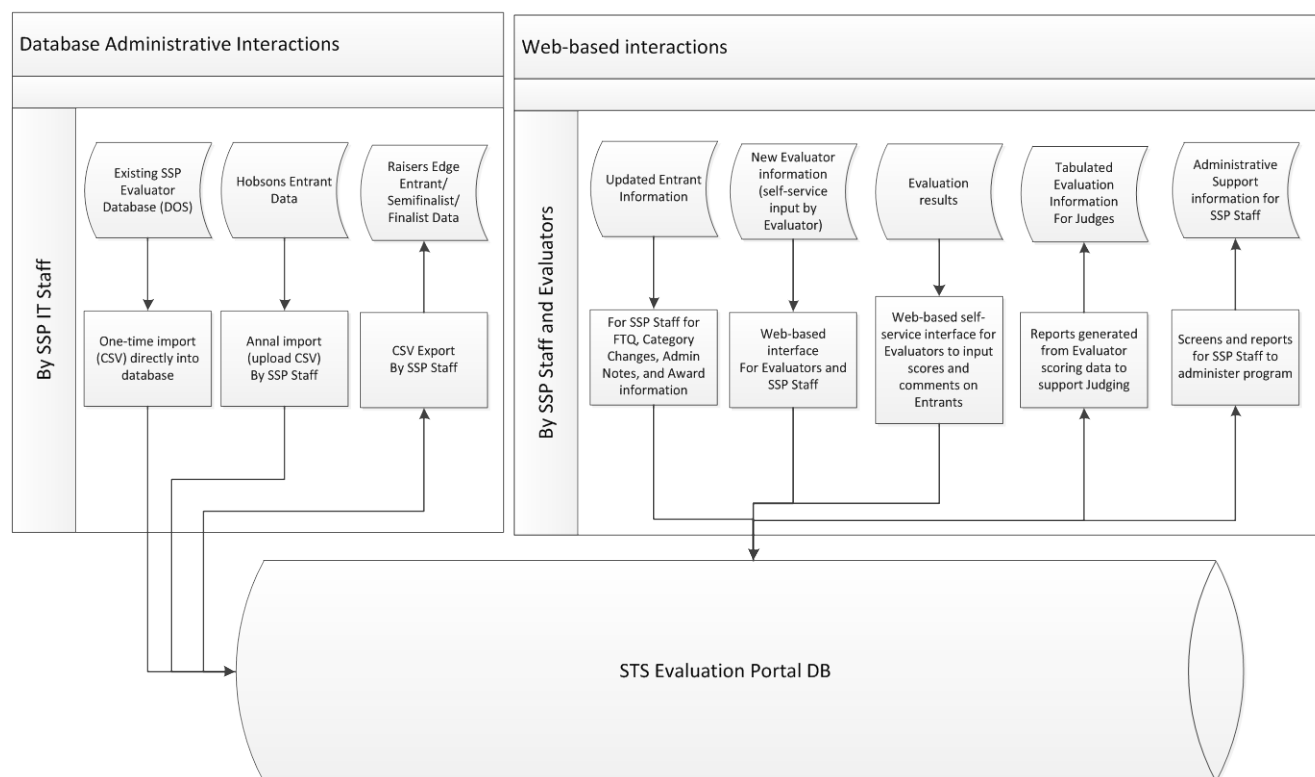
When the 40 finalists travel to Washington in mid-March, they have the chance to meet the Awards panel, who make the final decisions on the years' scholarship winners. Awards range from \$100K for First Place through \$20K for Tenth Place and \$7,500 for the remaining 30 finalists. These are announced at the Awards Gala.

ADMINISTRATIVE BUSINESS PROCESS FLOW



HIGH-LEVEL DATA PROCESS FLOW

STS Evaluation Portal High-level Data Process Flow Diagram



FEATURES

TECHNICAL REQUIREMENTS

OPERATING ENVIRONMENT

For interoperability with our existing environment, this will be a web-based solution in which the server may be staged at SSP's offices in downtown Washington, DC and will be configured on Windows Server 2008, MS SQL Server 2008, using an IIS service with a .NET framework. We are open to alternate hosting suggestions that fit within the vendor's preferences, including integration with Hobsons ApplyYourself system, which is used to take in Intel STS applications, or with BlackBaud / NetCommunity CMS / RaisersEdge, which is used for our current public website. On our desktops, we also have Microsoft Office Professional 2010 (including Outlook, Word, Excel and Access), Adobe Acrobat Professional 9, Internet Explorer 9 on Windows 7 Enterprise fully deployed to internal staff of SSP.

USER INTERFACES

All graphic user interfaces will need to meet requirements set forth by SSP's brand standards and the guidelines set forth by Intel and SSP for logo and color treatment.

HARDWARE INTERFACES

The development team will need to identify the appropriate mechanisms for connecting the software application with the specifications of the hardware on the server set up for the project.

SOFTWARE INTERFACES

An ODBC (or similar functionality) connection will need to be established to allow the .NET framework to make edits to the SQL Server data tables. End users will access the data through a web based GUI. In addition, a data import mechanism to import the entrant data that comes from the Hobson's ApplyYourself format, via .csv file into SQL Server.

MAJOR SYSTEM FEATURES

The development team will need to work with SSP staff members to capture fully all details of core functional requirements and reports necessary in the Detailed Technical Design documentation deliverable. Additional information is included in the appendices. Each requirement should be uniquely identified with a sequence number, in order to track progress and for testing.

1. ENTRANT MANAGEMENT

PROCESS DESCRIPTION

Entrant data will need to be imported from the Hobsons' application system in an annual transfer of a CSV file. Once Semifinalists/Finalists are selected, this data will be uploaded back into Hobsons' via CSV export. Once all Awardees are selected, this data will be moved into Raisers' Edge membership database.

USE CASES

SSP IT staff will:

- Upload CSV file from Hobsons
- Download CSV to upload to Hobsons
- Download CSV file to integrate into Raisers' Edge

SSP Administrative Staff will:

- Manually edit data fields as needed via web-based search/read/update/delete capability

The information will be captured into the backend database.

DATA DESCRIPTION

Some aspects of this data set include:

- **Unique Entrant Id:** Assignment of a unique Entrant ID, starting from 1 each year
- **Data Import:** Import of contact information of student, school, and research mentor, research title, category and permissions forms needed for each Entrant
- **School:** School data uses College Board data – import/export/update of this data set on an annual basis is required
- **Research Category:** Each Entrant submits original research paper which falls within a particular scientific discipline for purposes of assigning evaluators. Examples of Categories include:
 - Animal Sciences (AS)
 - Behavioral and Social Sciences (BE)
 - Bioinformatics and Genomics (BG)
 - Biochemistry (BI)
 - Bioengineering (BN)
 - Chemistry (CH)
 - Computer Science (CS)
 - Engineering (EN)
 - Earth and Planetary Science (EP)
 - Environmental Science (EV)
 - Mathematics (MA)
 - Medicine and Health (ME)
 - Microbiology (MI)
 - Materials Science (MS)
 - Physics (PH)
 - Plant Sciences (PS)
- **PDF:** Link to PDF of entry in Hobsons' of complete packet (which includes research paper)
- **Search:** Search for entrant by name or project ID
- **FTQ:** Designate Entrants as Fail to Qualify (FTQ), including transfer of FTQ information from Hobson's after initial reviews. Once marked FTQ, Entrant removed from pool of potential assignments for evaluators
- **Rules Notes:** Admin field visible only for Admin and Rules Advisors (not to Evaluators)

- **Report:** identifying FTQ's with reasons, time stamp, and school board code and school names and total number of projects entered in current year by that school.

Further details on underlying data fields and screen shot of existing entry screen in Appendix A.
Example reports in Appendix B.

FUNCTIONAL REQUIREMENTS

Requirements include:

- Integration of exported Entrant data from Hobsons'
- Re-integration of updated data back into Hobsons'
- Integration of data into Raisers Edge

2. EVALUATOR SELF-SERVICE

DESCRIPTION

Evaluators will need to register with the system to participate. These evaluators are invited by SSP and returning volunteers.

USE CASE

Evaluators will:

- Login at the website
- input their data fields
 - Selection to provide "yes I am interested in reviewing for this year"
 - Selection to provided "no, I am not able to review this year but please contact me for next year"
 - Selection to provided "no, please remove me from your listing "
- See their own Evaluator Report card
- Agree to an ethics/confidentiality agreement
- Submit their information
- Display of scoring rubric and instructions
- Editable reimbursement voucher and W-9 forms:
 - Auto population of W-9
 - Auto population of Evaluation voucher
 - Auto population of Check Request form
 - Auto population of accounting form from Evaluator contact data
- Upload of final reimbursement forms

This information will be captured to the backend database and forms will be saved to the file system on the web server. Users will see a confirmation page, and automated emails will go to the user and SSP staff confirming registration/update of Evaluator data.

DATA DESCRIPTION

Some aspects of this data set include:

- Identify Evaluator Type as Judge or Evaluator or Both
- Status flag indicating Evaluator has a new address
- Evaluator self-reports as currently active/available to participate for current year
- Identify Status - including evaluator. Current Year, categories reviewing, status (**Active**, **Inactive**, **Hold**)

Further details on data types and screen shot of existing entry screen in Appendix A.

FUNCTIONAL REQUIREMENTS

Requirements include:

- One Time transfer script to move existing Evaluator Information and Scoring Information from DOS/dBASEIII system into the new Portal. Import data will be in CSV format specified in Appendix A.

3. EVALUATOR MANAGEMENT

PROCESS DESCRIPTION

The evaluator management module will allow SSP staff to manage the evaluation process.

USE CASE

Staff will login to the administration module, view various reports, accept evaluators, assign projects, track progress of the evaluators and edit data.

FUNCTIONAL REQUIREMENTS

Functions and reports required follows.

- **Update** categories per evaluator and change any other Evaluator data
- **Search** for evaluator by name and category
- **Search & report** to review number of evaluators per category – including counts
- **Report** Evaluator contact list restricted by Evaluator status group (Active vs. Hold) or category group (Animal Science, Math etc)
- **Upload** of evaluation honorarium processing forms to accounting for immediate payment – (*plus progress function to see if evaluator submitted)
- **Print** evaluators and judges address labels with ability to select individuals
- **Search** to identify returning evaluators
- **Search** identify those that have not yet committed
- **Email** selected group (cut and paste addresses into Outlook or pre-built mailto link)
- **Report** indicates number of evaluators signed up per category plus listing of the secondary category and indicated number of evaluators needed per category

4. EVALUATION MANAGEMENT

DESCRIPTION

The evaluation module will be for evaluators to login and view the entries that they were assigned to evaluate, and to assign scores to the projects.

USE CASE

Evaluators will need to be able to:

- login
- review their list of assigned projects
- read the PDF containing the full entry including details of the projects and the associated research report,
- score the entries without seeing scores from other evaluators

FUNCTIONAL REQUIREMENTS

Entrant-Evaluator Assignment

- Assign values for ideal and maximum number of Entries per Evaluator
 - Assign Entries to Evaluator and display list for SSP Staff of Entrants by Evaluator
 - Each Entrant is assigned to three Evaluators in their research project's category
 - Each Evaluator should receive as close to ideal number of Entries as possible and no more than maximum
- Re-assign Entrants to other Evaluators
 - Re-assign a single project assignment to random number of evaluators in category and out - and track via notes visible to evaluators and additional to Admin only. (*Tracking report/search function needed as well)
- Search for Entrants without 3 scores, including assigned evaluators, and dynamically re-assign Entrant to other Evaluators
- Printable report showing assignments per evaluator

Rules Review/Category Change/FTQ

- Flag Entrant as Pending Rules Review or Category Change
- Qualification Status & Notes field on Entrant
- Flagged Entrants screen to see which Entrants have been flagged for Rules Review or Category Change and current status and Admin Notes
- Email communication to Evaluator of FTQ status change from "Pending Review" to "Normal" or "FTQ"
- Entrant category change – with notifications to previously assigned evaluators in notes fields and score sheet plus notifications in score sheet to newly assigned evaluators
- Removal of FTQs status Entrants from evaluation pool
- Reports summarizing FTQ status & notes by individual entrant and by school

Evaluator Communications

- Inform Evaluator by email their list of Entrants is ready to begin reviewing
- Alert Evaluator by email if additional Entrants were assigned to them
- Freeform messages to evaluators

Evaluator Review & Scoring

- Evaluator can view all Entrant submission info in PDF format
- Evaluator can send communication to admin and Rules Advisor about possible infractions such as IACUC issues/animals work, IRB noncompliance, team work, and or suspected plagiarism or suggested category changes and cross category review.
- Scoring:

- o Allow for three scores to be assigned by each Evaluator:
 - Student
 - Project
 - Overall
- o Also create checkbox for noting of semifinalist status possibility
- o Comments to Judges field
- o Comments to Student field
- o Comments to Admin (visible to Admin only)
- o Ability to use more than 3 scores if needed
- Evaluators cannot see any other Evaluators' scoring or comments, only their own

Evaluator Progress

- Tabulate individual Evaluator progress by percent of assigned Entrants completed
 - o See number of in progress – finished process – not started
 - o Direct e-mail capability and phone dialing ability
- Evaluator Analysis and Synopsis to be viewed by individual evaluators
- Report for SSP Staff showing any incomplete Evaluator accounting forms

Evaluation Results

- Administrative ability to add or edit any scores on an Entrant
- List Entrants where the score difference between three evaluators is greater than 1
- Projects ranked by composite score
- Projects ranked by normalized Z score (calculated score that includes weighting to account for individual evaluator difficulty)
 - o See http://en.wikipedia.org/wiki/Standard_score for concept background

Judging Management

- Top projects by category
 - o Must be able to set query parameters how many Entrants, cutoff score, which categories
- Report showing all Entrants which Evaluator has semifinalists or finalist recommended
- Report: Graph of composite scoring top 350
- Report: Graph of composite of all eligible entrants
- Report: category cover sheet in rank order, plus check boxes
- Labels for top papers and “out layers”

Judging Results

- Identification and selection of top 150 papers, and others with ability to print.
- Report: Graph of composite scoring top 350
- Report: Graph of composite of all eligible entrants
- Report: category cover sheet in rank order, plus check boxes
- Labels for top papers and “out layers”
- Entrants must be able to be marked Semifinalists, Finalists, or 1-10th Award Winners

QUALITY & SECURITY REQUIREMENTS

PERFORMANCE

The volume of traffic and load on the server expected for this application are minimal. The site needs to be stable and to be able to handle 30-50 users at once. Well written, succinct code on modern hardware should result in page load times of less than 5 seconds.

SECURITY

Validate Input and Output

User input and output to and from the system is the route for malicious payloads into or out of the system. All user input and user output should be checked to ensure it is both appropriate and expected. The correct strategy for dealing with system input and output is to only allow explicitly defined characteristics and drop all other data.

Use and Reuse Trusted Components

Using and reusing trusted components make sense both from resource stance and from a security stance. When someone else has proven they got it right; take advantage.

Least Privilege

Systems should be designed in such a way that they run with the least amount of system privilege they need to do their job. This is the need to know approach. If a user account doesn't need root privileges to operate, don't assign them in the anticipation they *may* need them. Giving the pool man an unlimited bank account to buy the chemicals for your pool when you're on vacation is unlikely to be a positive experience.

Compartmentalization

Compartmentalizing users' processes and data helps contain problems if they do occur. Containing access to the user functions limits the types of security problems that may arise.

SSL Certificate

The production server will have a valid SSL certificate which will encrypt the data transmissions.

SOFTWARE QUALITY ATTRIBUTES

Efficiency

The application should consume as few system resources as possible.

Flexibility

The system should be easy to add new capabilities. All pages should have detailed comment inline of the code.

Integrity

The web application and backed web database should protect against unauthorized access, and data loss.

Interoperability

The system must interconnect with the STS entrant data and SSP's local network.

Reliability

Written code needs to be free of bugs that would crash the system or the end user.

Usability

The interface of the application should be easy to use and also the programming should be configured in a way that future programmers can make edits as easily as possible.

DELIVERABLES

DOCUMENTATION

Several documents will be required as deliverables, including the following:

- **Detailed Technical Design documents** in Word/Excel/Visio covering:
 - o Database schema and data dictionary
 - o Software objects and dependencies
 - o Network/ Data/Application architecture diagrams
 - o The development team will need to work with SSP staff members to fully identify core functional requirements of this module. Each requirement should be uniquely identified with a sequence number, in order to track progress and for testing.
- **HTML online tutorial** for Evaluators to train them on how to review and score papers.
- **HTML online Administration Manual** for SSP staff showing how to:
 - o Assign papers, review evaluator progress, and create and generate reports
- **IT Operations Guide** for SSP IT Staff covering:
 - o Build: Detailed click-by-click procedures for build/setup of system
 - o Database Administration: Instructions for importing/exporting data from the Hobson's system, exporting to Raisers' Edge and creating & testing backups/restores
 - o Web administration: Any administrative tasks on the web system

CODE

All code should be well commented such that someone familiar with the programming language but not the application details can understand it quickly. Variable, function, and object names should consistently use best practices for the programming language for meaningfulness, upper/lowercase, and non-ambiguity.

Deliverables should consist of zip files which retain directory paths and can be easily extracted into target locations on the web and database servers. Zip files should be named by release version number, and contain top-level text files:

- **Readme.txt** providing detailed instructions for SSP IT Staff to be able to deploy to the server without additional intervention or support from the developer
- **Version.txt** providing version change history of added features, bug-fixes

RESOURCES

Society for Science & the Public:

<http://www.societyforscience.org/>

Intel STS:

<http://www.societyforscience.org/STS>

Intel's STS Website:

<http://www.intel.com/about/corporateresponsibility/education/sts/index.htm>

Intel STS Online Application System:

<https://app.applyyourself.com/?id=ssp>

(Feel free to create an applicant account once the system goes live in spring 2012– just use “Test” as your last name so we know you are not an eligible applicant.)

Hobsons ApplyYourself:

<http://www.hobsons.com/products/enroll/application.php>

<https://webcenter.applyyourself.com/AYClientLogin/ClientLogin.asp?exit=1>

Raisers Edge:

<https://www.blackbaud.com/fundraising-crm/raisers-edge-donor-management.aspx>

APPENDIX A: ANALYSIS OF CURRENT SYSTEM & DATA TYPES

The current system for managing the Evaluation portion of the Science Talent Search is an application built in the late 1980s & early 1990s by in-house developer. It is coded in the Computer Associates' Clipper v 5.2 programming language on DOS, and runs on a dBASEIII database server. The following is analysis of that application.

FILES & LINES OF CODE

File	blank	comment	code
ENTRPTS.PRG	73	31	2990
EVALRPTS.PRG	75	24	2835
STRPTS.PRG	74	25	2727
JUDRPTS.PRG	65	26	2510
HSRPTS.PRG	52	23	2444
STSUTILS.PRG	62	9	1963
CERTIFS.PRG	63	24	1903
ENTRANT.PRG	44	14	1709
BUNDLES.PRG	47	21	1237
STATESTS.PRG	32	12	1098
EVALUATE.PRG	26	11	868
STATRPTS.PRG	29	16	866
SEMIBOOK.PRG	40	23	816
ENTMMERG.PRG	41	8	775
STS.PRG	20	29	742
GETSYS.PRG	183	250	704
ALTERYR.PRG	17	10	599
SETRULES.PRG	27	20	598
SCHOOLS.PRG	18	9	521
STSPROCS.PRG	14	11	505
TABLE.PRG	3	8	489
MULTIDSP.PRG	1	8	486
STSMENUS.PRG	20	25	476
STSDATA.PRG	4	7	436
SCORING.PRG	13	9	317
ACC_REJ.PRG	4	8	292
ZIPCODE.PRG	10	9	270
FINALIST.PRG	9	8	201
STSBROW.PRG	7	11	197
LBLTYPE.PRG	9	7	191
REPORTB.PRG	5	8	190
CALIG.PRG	6	7	186
ACC_FORM.PRG	3	8	170
REPORTA.PRG	16	7	163
HELP.PRG	0	7	160
FILEUTIL.PRG	11	7	156
CODEUTIL.PRG	6	7	149
UTILITIE.PRG	5	7	140
ERRORSYS.PRG	67	34	119
REPORTS.PRG	3	7	111
RSTRUCT.PRG	6	7	96
TEXTSCAN.PRG	2	6	93
ALUMNI.PRG	7	7	88
ENTRANT.CH	2	0	71
XREF.PRG	2	7	62
STS.CH	12	0	53
C.BAT	0	1	50
STSDATA.CH	1	0	40
GUESTS.PRG	4	8	38
EVALUATE.CH	3	0	37
SCORING.CH	2	0	35
STATESTS.CH	1	0	29
NAMES.PRG	1	7	29
FINALIST.CH	2	0	27
INVITE.PRG	1	7	25
SCHOOLS.CH	2	0	19
ZIPCODE.CH	2	0	5
SUM:	1254	845	34106

IMPORTANT DATA TYPES

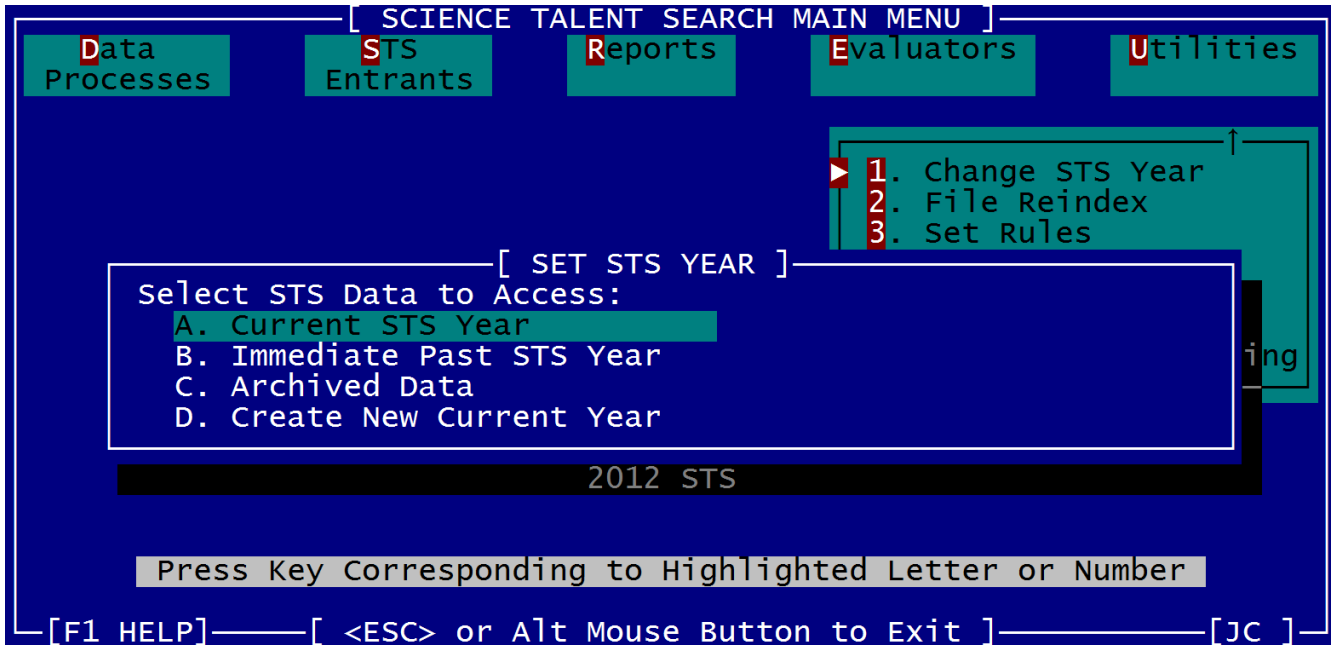
1. TALENT SEARCH

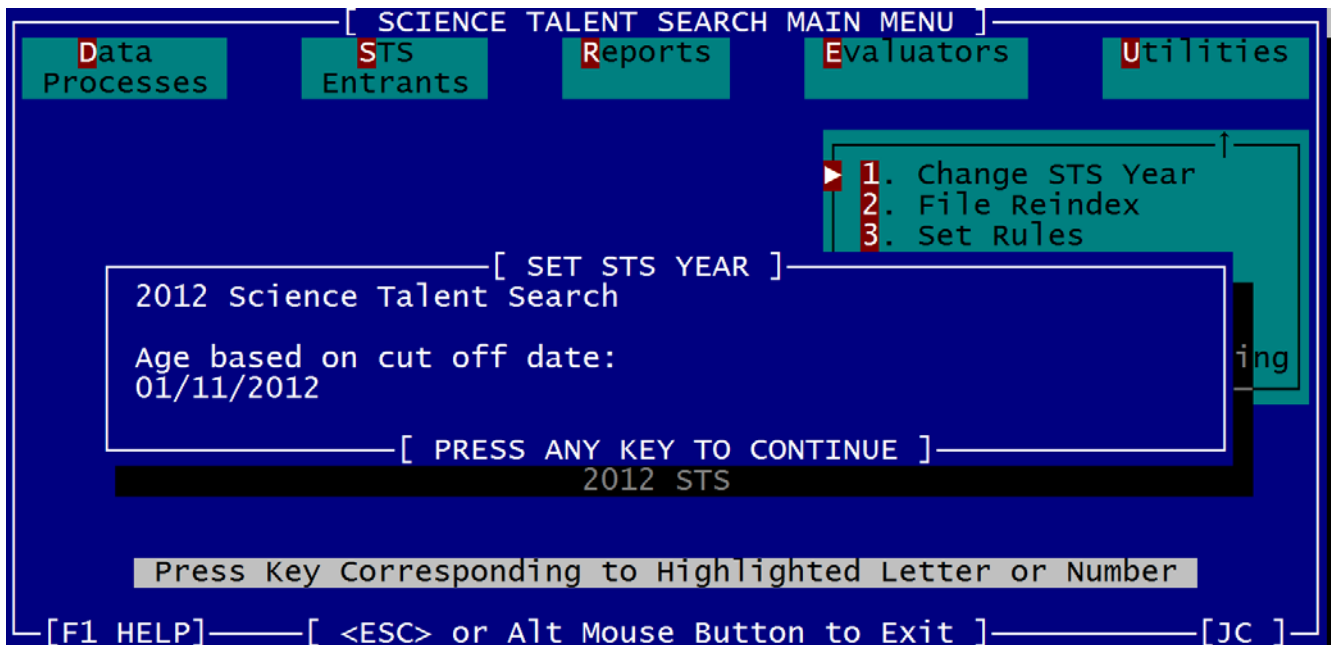
Each year, a new Talent Search is conducted for that year’s high school seniors. This allows each year’s data set to be kept distinct for purposes of user interaction, yet the underlying functionality to remain consistent.

Current definition:

Current Year
Immediate Past Year

Entry Screen:





2. ENTRANT

This is the main data set on an applicant to the STS. Feature 1 – Entrant Management.

Current Definition:

1. MPROJECTID Unique Id for that year (auto number from 1)
2. MSTATUS
3. MCATEGORY
4. MSTSYEAR
5. MSTSEQ
6. MTITLE
7. MLNAME
8. MFNAME
9. MMNAME
10. MSALUTATION
11. MADDRESS1
12. MADDRESS2
13. MCITY
14. MSTATE
15. MZIPCODE
16. MPHONE
17. MCONGRESMAN
18. MBIRTHCNTRY
19. MSEX
20. MDOB
21. MAGE
22. MUSCITIZEN
23. MBOARDCODE
24. MHSNAME
25. MHSADD1
26. MHSADD2
27. MHSADD3
28. MHSCITY
29. MHSSTATE
30. MHSZIPCODE
31. MHSFOREIGN
32. MPRLNAME

33. MPRFNAME
34. MPRTITLE
35. MPRSALUTE
36. MPRPHONE
37. MTCHNAME
38. MTCHEMAIL
39. MIPNAME
40. MIPSALUTE
41. MIPADD1
42. MIPADD2
43. MIPADD3
44. MIPADD4
45. MIPCITY
46. MIPSTATE
47. MIPZIPCODE
48. MIPRELATION
49. MIPPOSITION
50. MOCCUPATION
51. MSF
52. MISEF
53. MSSTP
54. MSIEMENS
55. MENTRYDATE
56. MNOTES
57. MPROOFED
58. MSOCIALSEC
59. MWEBACCESS
60. MHUMAN
61. MANIMAL
62. MCOUNTY
63. MKEYWORD1
64. MKEYWORD2
65. MEMAIL
66. MHOBSONSID
67. MUDDATE
68. MUDTIME
69. MUDINIT

Entry Screen:

```

[ STS ENTRANT INFORMATION ]
Edit
Project Number: 1 Date Entered: Category: BI
Vay Last Name First Name Middle Name
Salutation: Andy
Address Line 1: 56 Park Drive Human: N
Address Line 2: Animal: N
City: Mount Kisco County: Westchester
State: NY Zip: 10549 Status: Sex: M U.S. Citizen: Y
E-mail: avay@gmail.com
High School College Board Code: 331315 Foreign Location? N
High School Name: Horace Greeley High School
Address: 70 Roaring Brook Road
City: Chappaqua State: NY Zip: 10514
Teacher's Name: Mr. Tom Guest
Teacher's E-mail: tguest@yahoo.com
OK
Teacher's e-mail address
F2: Lookup Table F4: Note F5: Change Status F6: Scoring
[F1 HELP] [ <ESC> or Alt Mouse Button to Exit ] [JC ]

```

3. SCHOOL

Note we use the College Board Code Number as the unique ID for this data type. Feature 1 – Entrant Management. This data will be refreshed annually via text file import.

Current definition:

1. MBOARDCODE
2. MNAME
3. MADD1
4. MADD2
5. MADD3
6. MCITY
7. MUSSCHOOL
8. MSTATE
9. MPROVINCE
10. MCOUNTRY
11. MPOSTALCODE
12. MPHONE
13. MTYPE
14. MPROOFED
15. MUDINIT
16. MUDDATE
17. MUDTIME

```

[ MAINTAIN SCHOOL DATA - 2012 ]
Add Edit Delete Find Next Previous Top Bottom

College Board Code Number: 370478
School Name: Broken Bow High School
Address Line 1:
Address Line 2:
Address Line 3:
Is school in the U.S.? Y Postal Code: 74728
City: Broken Bow State: OK
Province: Country:

Phone Number:
School Type: P ( [P]ublic or pri[V]ate )

Press Key Corresponding to Highlighted Letter

F5: Print School List F2: Lookup Table
[F1 HELP] [ <ESC> or Alt Mouse Button to Exit ] [JC ]

```

4. EVALUATOR

Feature 2 – Evaluator Self-Service. Feature 3 -- Evaluator Management.

Current definition:

1. MCATEGORY
2. MSECCATEG
3. MPREFIX
4. MLNAME
5. MFNAME
6. MMNAME
7. MPOSTFIX
8. MSALUTATION
9. MADDRESS1
10. MADDRESS2
11. MADDRESS3
12. MADDRESS4
13. MCITY
14. MSTATE
15. MZIPCODE
16. MWPHONE
17. MHPHONE
18. MFPHONE
19. MEMAIL
20. MEMPLOYER
21. MOCCUPATION
22. MSTATUS
23. MLASTSTS
24. MPAYAMT
25. MEXPENSES
26. MSOCSEC
27. MNOTES
28. MNORMPRI
29. MOTHCATEG
30. MHISTCATEG
31. MEVALID
32. MSTARTED

- 33. MUDDATE
- 34. MUDTIME
- 35. MUDINIT

Entry Screen:

[STS EVALUATOR INFORMATION]

Edit

MAJONE01

Prefix: Dr. First Name: J.
 Middle: Arthur Last Name: John
 Postfix: Salutation: Dr. John
 Address: (1) 1950 Bridge Lane (2)
 (3) (4)
 City: Reston State: VA Zip: 20191
 Work Phone: 202/659-5555 Home Phone: 703/476-5555
 Fax Phone: 202/659-5556 E-Mail: john@abc123.com
 Employer:
 Occupation:
 Category: 1: MA (Mathematics) 2: Other:
 Status: H Last STS: 66 Notes:
 Pay Amount: 595.00 Expenses: 0.00 SS#: 555-55-5555
 First Year as Evaluator/Judge:
 Enter social security number for 1099 purposes
 OK

F2: Lookup Table
F5: Change Status
F6: Last STS
Old Cats: I

[F1 HELP]
<ESC> or Alt Mouse Button to Exit
[JC]

5. SCORING

Feature 2 – Evaluator Self-Service. Feature 4 – Evaluation Management.

Note typically three evaluators are assigned to each entrant. System must have the flexibility to permit addition scores, and scaling of additional scores in summary reporting down to a basis of three evaluators.

Formula for Composite score is as follows.

Composite = SUM all sets of scores ([Entry Score + (2*Project Score) + Overall Score]/Number of Sets)

Current definition:

MSTYEAR
 MPROJECTID
 MCATEGORY
 MBUNDLENO
 MEFORM1
 MEFORM2
 MEFORM3
 MPROJ1
 MPROJ2
 MPROJ3
 MOVERALL1
 MOVERALL2
 MOVERALL3
 MDELTA PROJ
 MDISPARITY
 MPROJOUT
 MEVAL1

MEVAL2
MEVAL3
MEVID1
MEVID2
MEVID3
MCOMPOSITE
MZSCORE1
MZSCORE2
MZSCORE3
MNCOMPOSITE
MNOTES
MPROOFED
MHOBSONSID
MUDDATE
MUDTIME
MUDINIT

Entry Screen:

[STS SCORING DATA]

Project ID: 1Category: BGStatus: SSTS Year: 2012

Report Title: A

EVAL ID	ENTRY FORM	PROJECT	OVERALL	COMPOSITE
BGGOLD01	4.00	4.00	4.00	50.000
BGNOAK01	4.50	4.50	5.00	
BGSPAD01	4.00	3.75	4.00	

Notes:

=====
0.75Project Difference > 1.00? N

Project Classified as OUT? NProofed? NBundle: 5

Evaluator 1: AT

Evaluator 2: Su

Evaluator 3: Ty

OK

Enter first evaluator's ID number

[<Esc> to EXIT]

APPENDIX B: SAMPLE OUTPUTS & REPORTS

See Items 1 through 20 on following pages.

1. CATEGORY COUNT FOR ALL ENTRANTS. FEATURE 1 – ENTRANT MANAGEMENT.
2. ENTRANTS PER CATEGORY MINUS FTQ ENTRANTS. FEATURE 1 – ENTRANT MANAGEMENT.
3. DIRECTORY OF EVALUATORS WITH NAME, PHONE, EMAIL, BY PRIMARY CATEGORY, INCLUDING COUNT PER CATEGORY. FEATURE 3 – EVALUATOR MANAGEMENT.
4. PROJECTS THAT FAILED TO QUALIFY. FEATURE 1 – ENTRANT MANAGEMENT
5. PROJECTS THAT FAILED TO QUALIFY GROUPED BY SCHOOL. FEATURE 1 – ENTRANT MANAGEMENT.
6. [INTENTIONALLY BLANK]
7. EVALUATOR LIST WITH ASSIGNED BUNDLES OF ENTRIES. FEATURE 4 – EVALUATION MANAGEMENT.
Note: Because in the past we were printing all Entries, they were grouped into Bundles. They will no longer be in the new system. The purpose of this item and number 8 is to show how Evaluators were assigned to a group of Entries in the past.
8. BUNDLE CONTENTS REPORT. FEATURE 4 – EVALUATION MANAGEMENT
9. RULES VIOLATION REVIEW FORM. FEATURE 1 – ENTRANT MANAGEMENT
10. PROJECTS WITHOUT THREE SETS OF SCORES. FEATURE 4 – EVALUATION MANAGEMENT
11. EVALUATOR'S SCORE SHEET. FEATURE 2 – EVALUATOR SELF-SERVICE.
12. SUMMARY OF EVALUATOR RESULTS GROUPED BY CATEGORY. FEATURE 4 – EVALUATION MANAGEMENT
13. A-D PAYMENT FORMS FOR EVALUATORS. FEATURE 3 – EVALUATOR MANAGEMENT
14. A-B GRAPHS OF EVALUATORS SCORES OF STS ENTRANTS. FEATURE 4 – EVALUATION MANAGEMENT

15. FINAL EVALUATORS SCORE REPORT IN RANK ORDER. FEATURE 4 – EVALUATION MANAGEMENT
16. PRE-JUDGING COMPOSITE SCORES IN RANK ORDER (TOP 350). FEATURE 4 – EVALUATION MANAGEMENT
17. PRE-JUDGING COMPOSITE SCORES IN Z-RANK ORDER (TOP 350). FEATURE 4 – EVALUATION MANAGEMENT
18. CATEGORY COVER SHEET WITH ENTRANTS IN RANK-ORDER WITHIN CATEGORY. FEATURE 4 – EVALUATION MANAGEMENT
19. LABEL AFFIXED TO PRINTOUT OF ENTRY FOR JUDGES INCLUDING NAME, CATEGORY, ENTRANT ID, SCORE, RANK, Z-SCORE, Z-RANK, RANK WITHIN CATEGORY. FEATURE 4 – EVALUATION MANAGEMENT
20. RULES REVIEW / CATEGORY CHANGE TRACKING SHEET. FEATURE 1 – ENTRANT MANAGEMENT
21. EVALUATOR REPORT CARD. FEATURE 3 – EVALUATOR REPORT CARD

①

1. Category Count for all Entrants

**INTEL
SCIENCE
TALENT
SEARCH**

2011/2012

CATEGORY COUNT FOR ALL ENTRANTS

02/14/12

17:07:37

PAGE 1

AS - Animal Sciences	70
BE - Behavioral and Social Sciences	390
BG - Bioinformatics & Genomics	78
BI - Biochemistry	184
BN - Bioengineering	89
CH - Chemistry	63
CS - Computer Science	63
EN - Engineering	79
EP - Earth and Planetary Science	30
EV - Environmental Science	103
MA - Mathematics	63
ME - Medicine and Health	316
MI - Microbiology	113
MS - Materials Science	71
PH - Physics	95
PS - Plant Sciences	32

TOTAL IN ALL CATEGORIES: 1839

2

2. Entrants per Category minus Fail To Qualify (FTQ) Entries

**INTEL
SCIENCE
TALENT
SEARCH**2011/2012

CATEGORY LIST WITH FTQ NUMBERS

12/08/11

14:49:38

PAGE 1

AS	70	-	13	=	57
BE	390	-	92	=	298
BG	78	-	2	=	76
BI	184	-	14	=	170
BN	89	-	5	=	84
CH	63	-	1	=	62
CS	63	-	1	=	62
EN	79	-	2	=	77
EP	30	-	0	=	30
EV	103	-	2	=	101
MA	63	-	1	=	62
ME	316	-	40	=	276
MI	113	-	5	=	108
MS	71	-	1	=	70
PH	95	-	1	=	94
PS	32	-	0	=	32
ALL	1839	-	180	=	1659

3

3. Directory of Evaluators with Name, Phone, Email by primary category. Requires count per category.

2/14/12

AS /count

<u>LNAME</u>	<u>FNAME</u>	<u>WPHONE</u>	<u>EMAIL</u>	<u>Cat 2</u>
Glenn	Donis	301	mail.com	ME
M	nk	202	.usda.gov	ME
M	an	202	getown.edu	ME
M	m	202	town.edu	AS

BE

<u>LNAME</u>	<u>FNAME</u>	<u>WPHONE</u>	<u>EMAIL</u>	<u>Cat 2</u>
Ad	i	202	howard.edu	BE
Ba	er	202	yahoo.com	
Ca	sha	301	edu	
Co	ela	202	l.com	MA
Cr	ina	703	ov	
Fa	an	202	can.edu	
Gr	erine	301	erizon.net	
Ke	ard	301		ME
Ke	am	301	.net	
Le	sa	301	il.com	
No	her		@gmail.com	
Ro	ca	202	ard.edu	ME
Ro	t	Cel	@gmail.com	
Ro	ey Ian	410		
Sil	ara		.com	
Slo	d	202	ard.edu	
Sta	les	301	esstangor.com	

BG

<u>LNAME</u>	<u>FNAME</u>	<u>WPHONE</u>	<u>EMAIL</u>	<u>Cat 2</u>
Go	rt	301	ov	MI
No	nne	571	@uspto.gov	BI
Sp	ne	301	g	BE
Wi	ert	301	mil	CS

BI

<u>LNAME</u>	<u>FNAME</u>	<u>WPHONE</u>	<u>EMAIL</u>	<u>Cat 2</u>
Ca	cia	301	une.com	ME
Co	lle	301	y	
Cr	tt	202	own.edu	MI
Fre		301	.gov	MI
Hi		301	n.gov	MI
Ho		410	.edu	BG
Le	ard	301	e@fda.hhs.gov	MI
Ro	e	571	uspto.gov	
Ro		202	own.edu	MI
Str	s	301	v	MI
Sw	dan	571	@uspto.gov	ME
To		301	a.hhs.gov	MI
Wa		202	getown.edu	ME
Wi	da	301	en1001@gmail.com	MI

4. Projects that Failed to Qualify. Requires addition of Comments field from Hobsons import and Date Of FTQ field.

INTEL
SCIENCE
TALENT
SEARCH

2011/2012

PROJECTS SELECTED AS OUT

02/14/12

16:55:45

PAGE 1

PROJECT	CATEGORY	OUT	BOARD CODE	COMMENT	<u>DATE OF FTQ</u>	H/A
0014	BG	Y				
0024	ME	Y				
0028	ME	Y				
0049	BE	Y				
0063	ME	Y				
0067	ME	Y				
0080	AS	Y				
0107	AS	Y				
0135	ME	Y				
0148	MI	Y				
0151	BI	Y				
0168	BE	Y				
0172	BI	Y		Invasive Animal Work		
0186	BE	Y				
0202	BN	Y				
0203	BI	Y		Animals sacrificed for Project		
0231	ME	Y		No IRB Documentation		
0259	BE	Y				
0290	ME	Y				
0294	AS	Y		Not a High School SR		
0309	BE	Y				
0332	BE	Y				
0372	BE	Y		NO IRB		
0387	ME	Y		Turn it in		
0391	BI	Y				
0402	BI	Y		Invasive - animals sacrificed by student.		
0419	ME	Y				
0425	EV	Y		TEAM		
0435	ME	Y				
0436	MI	Y				
0458	ME	Y				
0459	BE	Y				
0470	AS	Y		Animals sacrificed for Study		
0495	BE	Y				
0497	ME	Y				
0498	ME	Y				
0528	ME	Y		turn it in		
0544	AS	Y				
0557	ME	Y				
0560	BN	Y		No Research submitted		
0576	ME	Y				
0581	BE	Y				
0597	AS	Y		Animals sacrificed for project		
0671	BE	Y		ethical violation per g.bush		
0677	BE	Y		NO IRB		
0683	AS	Y		Invasive Animal work		
0698	BE	Y				
0699	EE	Y				

PROJECT	CATEGORY	OUT	BOARD CODE	COMMENT	H/A
TOTAL FTQ's FOR SCHOOL 1			1		
TOTAL FTQ's FOR SCHOOL 1			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			2		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 2			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			7		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			6		
TOTAL FTQ's FOR SCHOOL 3			20		
TOTAL FTQ's FOR SCHOOL 3			34		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			4		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			5		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			3		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			5		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			2		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		
TOTAL FTQ's FOR SCHOOL 3			1		

6. Intentionally left
blank.

02/14/2012

EVALUATOR LIST WITH ASSIGNED BUNDLES - PAGE 1

16:37:58

NAME**BUNDLE NUMBERS**

(ASGLAN01)	Gla	AS1, AS2, AS3, AS5
(ASMIRA01)	Mir	AS1, AS2, AS4, AS5
(ASMULR01)	Mu	AS1, AS3, AS4, AS5
(ASMYER01)	Mye	AS2, AS3, AS4
(BEADAM01)	Ada	BE1, BE6, BE12, BE18
(BEBARD01)	Bar	BE1, BE7, BE12, BE18
(BECABR01)	Cab	
(BECOLE01)	Col	BE2, BE7, BE13, BE19
(BECRAI01)	Cra	BE2, BE8, BE13, BE19
(BEFANT01)	Fan	BE2, BE8, BE14, BE19
(BEGRAH01)	Gra	BE3, BE8, BE14, BE20
(BEKELT01)	Kel	BE3, BE9, BE14, BE20
(BEKELT02)	Kel	BE3, BE9, BE15, BE20
(BELEVI01)	Lev	BE4, BE9, BE11, BE15, BE21

AS - Animal Sciences

Number of Bundles: 5 Number of Evaluators: 4
Papers per Bundle: 15 Bundles per Evaluator: 3.75
Papers in Last Bundle: 5
Total Number of Papers: 65

BE - Behavioral and Social Sciences

Number of Bundles: 21 Number of Evaluators: 17
Papers per Bundle: 15 Bundles per Evaluator: 3.71
Papers in Last Bundle: 4
Total Number of Papers: 304

BG - Bioinformatics & Genomics

Number of Bundles: 6 Number of Evaluators: 4
Papers per Bundle: 15 Bundles per Evaluator: 4.50
Papers in Last Bundle: 2
Total Number of Papers: 77

BI - Biochemistry

Number of Bundles: 12 Number of Evaluators: 15
Papers per Bundle: 15 Bundles per Evaluator: 2.40
Papers in Last Bundle: 12
Total Number of Papers: 177

BN - Bioengineering

Number of Bundles: 6 Number of Evaluators: 4
Papers per Bundle: 15 Bundles per Evaluator: 4.50
Papers in Last Bundle: 9
Total Number of Papers: 84

CH - Chemistry

Number of Bundles: 5 Number of Evaluators: 3
Papers per Bundle: 15 Bundles per Evaluator: 5.00
Papers in Last Bundle: 3
Total Number of Papers: 63

CS - Computer Science

Number of Bundles: 5 Number of Evaluators: 5
Papers per Bundle: 15 Bundles per Evaluator: 3.00
Papers in Last Bundle: 6
Total Number of Papers: 66

EN - Engineering

Number of Bundles: 6 Number of Evaluators: 6

Rules Violation Review ♦ Intel Science Talent Search

From Bundle # BE-17
 Project ID 1294 Student's Last Name: [REDACTED] Your Name: Silver

By submitting this form, you are requesting that our Rules Official review this project for a potential violation.

Please circle the Project ID on the bundle cover sheet and label it 'RR', indicating that the paper is out for Rules Review. Clip this form to the entry and place it in the basket marked **Rules Review**, or give it to a Society for Science staffer. Continue reading entries in that bundle and keep the bundle available to others. Entries will be reviewed by our rules advisor on a rolling basis – and either cleared or disqualified.

Entries that clear will be returned to you for evaluation; please allow time during your session(s) on-site to read and score them. Complete evaluation and scoring of your assigned bundles is integral to STS judging.

Please explain your concerns and check the rule(s) that you believe constitutes a violation.

Comments

☐ **Non-Human Vertebrate Animals**

No projects involving live non-human vertebrate animal experimentation will be eligible

In all non-human vertebrate animal projects the supervising scientist MUST complete the Non-human Vertebrate Animal Exception Form, which attests to compliance with the above rule and its exceptions listed here:

Live vertebrates are defined as any live, non-human vertebrate, mammalian embryo or fetus, bird eggs within three days (72 hours) of hatching, and all other vertebrates at hatching or birth.

Excluded from the above rule are:

b. Projects being conducted in a registered institution or laboratory where animal experimentation is taking place and in which the student will only have physical contact with the animal(s) under the handling and husbandry conditions stated above; and

i. the student works with non-living material (e.g., tissue, blood) that has been supplied to them by the supervising scientist; and

ii. the animal(s) involved is/are not sacrificed solely for the student's project; and

iii. the project the student designs and implements begins with non-living material. (No procedures, invasive or otherwise, were conducted on live vertebrate animals for the student-designed project); and

iv. the student was not involved in the collection of data, directly or indirectly (through media or video), using invasive or intrusive experimentation that causes more than momentary pain or distress to the vertebrate animal(s).

☐ **Human Subjects & IRB Approval**

1) All research involving human subjects, including any revisions, must be reviewed and approved by an IRB prior to the start of research.

2) A human subject is defined as a person about whom an investigator, whether professional or student, conducting scientific research obtains (1) data through intervention or interaction with the person OR (2) identifiable private information.

3) Human subject research conducted within a college, university, hospital, or research laboratory/institution needs prior approval from that institution's IRB. For those projects conducted outside of the aforementioned institutions, or if the student's school is the research site, then the IRB **must** be formed at the student's school and **must** consist of **at least three** members composed of: (1) a science teacher **AND** (2) a school administrator (preferably principal or vice principal) **AND** (3) one of the following who is knowledgeable and capable of evaluating the physical and/or psychological risk involved: **either** a physician, psychiatrist, physician's asst, registered nurse, psychologist or licensed social worker, or licensed professional counselor.

☒ **Team Project**

1) Projects involving more than one high school student do not qualify for the Intel Science Talent Search.

2) Students may work in a lab with other researchers. Look for evidence of individual accomplishment that can be credited to the high school student alone. The Supervising Scientist Form should address the student's role in the lab, any help the student received, and how the student got the idea for the project. ***Mention of more than one HS student researcher, multiple authors, or the use of "we" are possible indicators of a team project that warrants review.

[illegible]

11

11. Evaluator's Score sheet

JB



2011/2012

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PAGE 1

EVALUATOR'S SCORE SHEET

Category: AS - Animal Sciences
Bundle: AS-1

Evaluator: Susan Mulroney

Project Number	Entry Form	Project	Overall	Comments
	3.0	4.0	3.5	2400 good science not science & doesn't 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	5.0	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.5	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	3.5	4.0	3.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	2.5	3.5	2.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	3.5	2.5	2.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	3.5	3.0	3.0	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	3.5	3.75	3.75	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.0	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.5	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	3.0	4.0	3.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.0	4.0	4.0	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.5	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.5	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper
	4.5	4.5	4.5	2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper 2400 sci paper

(12)

12. Summary of Evaluator results grouped by Category (for Judges)

INTEL
SCIENCE
TALENT
SEARCH

2011/2012

EVALUATOR'S SHEET

12/07/11

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PAGE 1

Category: AS - Animal Sciences

Bundle: AS2

Evaluator 1: Adam Myers

Evaluator 2: Dennis Glanzman

Evaluator 3: Mark Miranda

Project Number	Entry Form	Project	Overall	Out	FTQ/Evaluator Comments	Score	Proof
	3.50 0.00 0.00	3.50 0.00 0.00	3.50 0.00 0.00	Y	Animals sacrificed for i Study	14.00	
	4.25 2.50 4.00	4.25 3.00 4.00	4.25 2.50 4.50	N		44.50	
	3.75 2.00 4.75	4.00 1.50 4.75	3.75 1.75 4.75	N		41.25	
	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	Y	Animals sacrificed for i project	0.00	
	4.00 2.50 3.75	4.25 3.00 3.50	4.25 2.50 3.50	N		42.00	
	3.75 1.00 4.25	3.75 2.00 3.00	3.75 2.00 3.00	N		35.25	
	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	Y	Invasive Animal work	0.00	
	4.25 2.00 3.75	3.75 2.00 3.00	3.75 1.75 3.75	N		36.75	
	4.00 1.00 4.00	3.75 1.00 3.25	3.75 1.00 3.50	N		33.25	
	3.75 3.00 3.75	4.00 3.50 4.25	4.00 3.00 4.25	N		45.25	
	2.00 1.50 3.75	2.00 1.25 2.50	2.00 1.50 2.75	N		25.00	

13 A

13. Payment packet for Evaluators
13A. W-9 form

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

Give form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)	
Business name, if different from above	
Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership ☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ☐ Exempt payee ☐ Other (see instructions) ▶	
Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
City, state, and ZIP code	
List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person ▶	Date ▶
------------------	----------------------------	--------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

(13) B

13B. Evaluator Payment Voucher for SSP Accounting Staff.

Society for Science & the Public
2012 Intel Science Talent Search
Evaluator Voucher

Date: _____

Pay to the Order of:
D
2
W

Social Security #:

Amount: \$595

Account: STS - Evaluator Fees

Please sign, date and return to the boxes marked "Evaluator Voucher", fax to 202/785-1243 or return via mail to Diane Rashid, STS - Evaluator Fees, Society for Science & the Public, 1719 N Street, NW, Washington, DC 20036. Electronic versions cannot be accepted.

Internal Revenue Service (IRS) regulations require that we file form 1099-Miscellaneous Income Return for recipients of award monies totaling \$600 or more during the calendar year.

Signature _____

☐ I will be returning receipts for expenses incurred during STS evaluation.

Office Use Only	Approved: _____
	Date: _____
	Check: _____



SOCIETY FOR
SCIENCE & THE PUBLIC

CHECK REQUEST/INVOICE PAYMENT VOUCHER

Payee: _____ Invoice Date: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Amount Requested \$ _____ Date Required: _____

Requested By: _____ Invoice #: _____

DESCRIPTION OF ITEM(S), DATE, SERVICE AND PURPOSE

Programs:

Science News ☐ ISEF ☐ STS ☐ IT ☐ Acct/Admin ☐
Development ☐ President ☐ Outreach ☐ Membership ☐ MSP ☐
Facilities/Support ☐ Other ☐

(Short Description of Invoice)

Mail Check to Payee: ☐ Return Check to: _____

ACCOUNTING INFORMATION

<u>General Ledger Account</u>	<u>Grantor/Department</u>	<u>Amount</u>
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
	Total (should equal amount requested above)	\$

APPROVAL

Department Approval: _____ Date: _____

Department Approval: _____ Date: _____

Department Approval: _____ Date: _____

13D. Evaluator Payment Summary Sheet for SSP Accounting

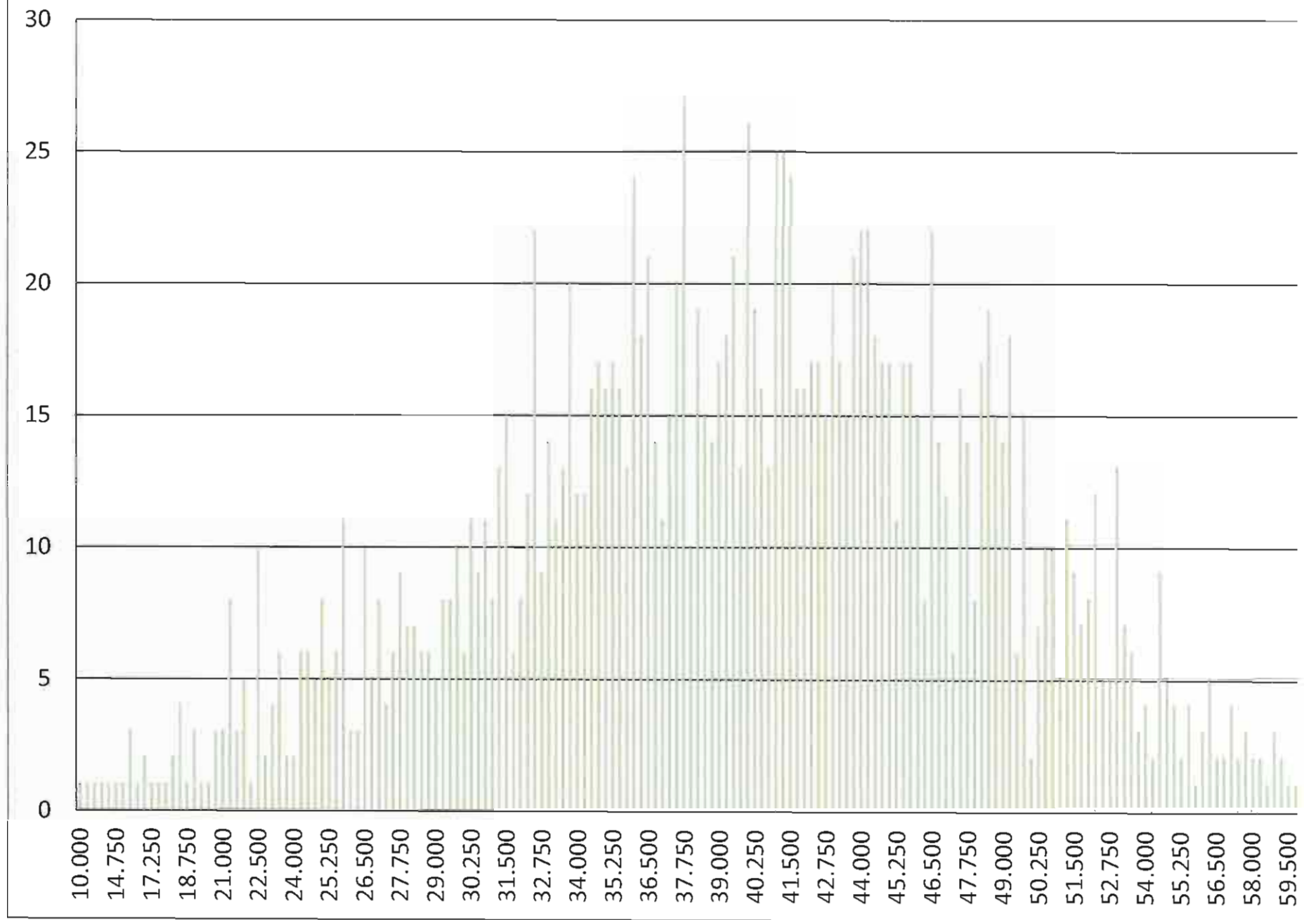
⑬ Summary Sheet

⑬ D Sunway Street

14 A for judges

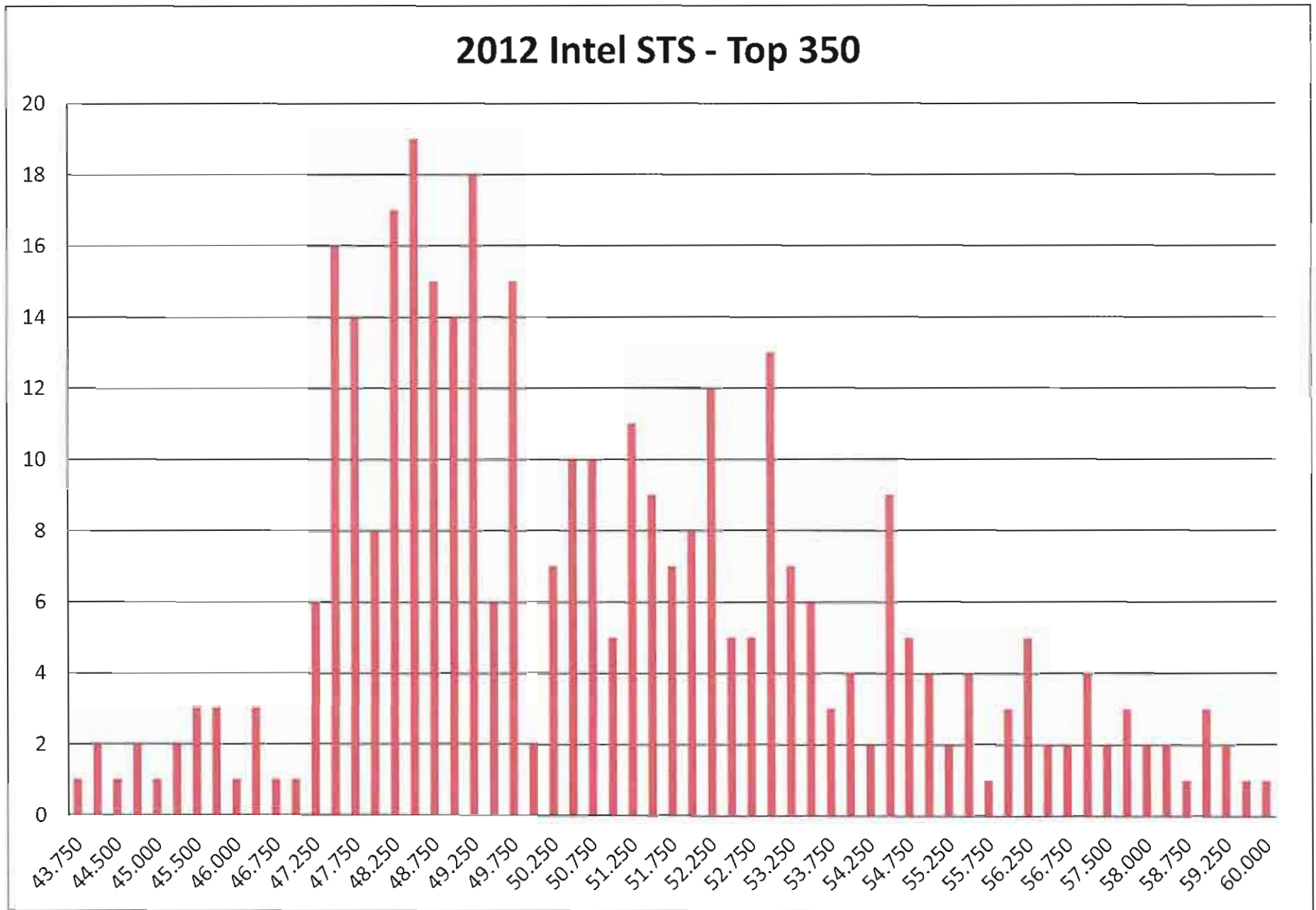
14 A. Graph of Evaluators scores of STS Entrants --
note uneven scale along X axis

Intel STS 2012 - All Eligible Entrants



⑭ B for judges

14B. Graph of potential Finalist Scores
-- note X axis



INTEL
SCIENCE
TALENT
SEARCH

2010/2011

PROJECTS LISTED BY TOTAL SCORE

12/09/11

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PAGE 1

(Add)
Z Rank

RANK	BUNDLE #	PROJECT	NAME	CATEGORY	SCORE	STATUS	SEX	Z-SCORE
1	MA1	0	C	MA	60.00	F	M	1.7276
2	AS2	0	E	AS	59.75	F	F	1.7461
3	CH5	1	J	CH	58.75	S	F	1.3459
4	CH5	1	H	CH	58.25	S	F	1.3541
5	BI3	0	R	BI	58.00	F	M	1.3870
6	MA3	0	N	MA	57.75	F	M	1.6502
7	PH5	1	C	PH	57.75	F	M	1.4418
8	MS1	0	N	MS	57.50	S	M	1.5368
9	MI1	0	A	MI	57.50	F	F	1.6368
10	BG4	1	N	BG	57.50	S	M	1.2451
11	CH5	1	Z	CH	57.50	F	F	1.2326
12	ME3	0	V	ME	57.25	S	M	1.3712
13	ME3	0	V	ME	57.25	S	M	1.3366
14	AS3	1	C	AS	57.25	F	M	1.8283
15	MI5	1	T	MI	57.00	F	M	1.9017
16	BG6	1	V	BG	57.00	F	F	1.3922
17	MS6	1	J	MS	57.00	S	F	1.4913
18	CH2	0	S	CH	56.75	F	M	1.2621
19	CH2	0	S	CH	56.75	S	M	1.2432
20	BI2	0	T	BI	56.50	S	M	1.1628
21	PH2	0	Z	PH	56.50	S	M	1.0903
22	BG4	0	D	BG	56.50	S	M	1.2423
23	CH3	1	P	CH	56.50	F	M	1.2738
24	MS2	0	C	MS	56.25	S	M	1.3465
25	MS2	0	R	MS	56.00	S	M	1.7418
26	MS2	0	E	MS	56.00	F	M	1.4184
27	MA2	0	C	MA	56.00	F	M	1.3912
28	ME9	0	S	ME	55.75		M	1.2502
29	BE15	1	L	BE	55.75	F	M	2.1529
30	PH4	1	D	PH	55.75	S	M	0.9741
31	ME15	1	K	ME	55.75	S	M	1.0450
32	MS4	1	M	MS	55.75	F	M	1.3504
33	PH5	1	J	PH	55.75	S	M	1.2526
34	MA1	0	A	MA	55.50	F	M	1.3829
35	CH1	0	C	CH	55.50	F	F	1.1104
36	EN1	0	E	EN	55.50	F	F	1.7929
37	BI2	0	L	BI	55.50	S	F	1.0741
38	BG2	0	L	BG	55.50	F	M	1.4926
39	BE13	0	M	BE	55.50	S	M	1.6277
40	CH6	1	S	CH	55.50	S	M	1.0702
41	EV1	0	B	EV	55.25	F	M	1.8679
42	MI1	0	C	MI	55.25	F	F	1.4543
43	BI1	0	L	BI	55.25	F	F	1.5357
44	BI4	0	C	BI	55.25	S	M	1.4859
45	CH3	0	D	CH	55.25	S	M	1.1512
46	ME15	1	S	ME	55.25	S	M	0.9232
47	CH1	0	P	CH	55.00	S	M	1.0955
48	BI8	1	M	BI	55.00	S	M	0.9952
49	CH2	0	D	CH	54.75	S	M	1.0356

(16) Pre-judging composite scores

16. Pre-judging composite scores in rank order (top 350)

CAT	PROJID	STUDENT	HSNAME	HSSTATE	SCORE	RANK	Z Score	Z-Rank
BE					60	1	2.114	2
PS					59.5	2	1.5961	34
BE					59.25	3	2.0478	3
CH					59.25	4	1.3824	60
BI					59	5	2.405	1
EN					59	6	1.8339	12
AS					59	7	1.8216	14
MA					58.75	8	1.634	30
EN					58.5	9	1.717	18
PS					58.5	10	1.4833	44
CH					58	11	1.2733	90
CH					58	12	1.2682	92
MS					57.75	13	1.8321	13
EN					57.75	14	1.7013	25
MA					57.75	15	1.4365	54
BE					57.5	16	1.9069	9
BE					57.5	17	1.7112	19
BN					57	18	1.706	22
BE					57	19	1.7018	24
PH					57	20	1.5492	38
PH					57	21	1.4728	47
EP					56.75	22	1.6628	28
BE					56.75	23	1.557	37
BI					56.5	24	1.9948	4

(17) pre-judging Z-rank score

17. Pre-judging composite scores in Z-rank order

CAT	PROJID	STUDENT	HSNAME	HSSTATE	SCORE	RANK	Z Score	Z-Rank
BI					59	5	2.405	1
BE					60	1	2.114	2
BE					59.25	3	2.0478	3
BI					56.5	24	1.9948	4
ME					52.25	104	1.9761	5
EV					56.25	26	1.9631	6
ME					51.5	131	1.9254	7
EV					53.25	74	1.9091	8
BE					57.5	16	1.9069	9
ME					51.75	124	1.8829	10
EV					52	116	1.8435	11
EN					59	6	1.8339	12
MS					57.75	13	1.8321	13
AS					59	7	1.8216	14
ME					53	81	1.8039	15
BN					56.25	27	1.7777	16
BE					55	41	1.7221	17
EN					58.5	9	1.717	18
BE					57.5	17	1.7112	19
BI					55.25	39	1.7102	20
BI					53	82	1.7083	21
BN					57	18	1.706	22
ME					52.75	94	1.7042	23
BE					57	19	1.7018	24

18 for judges worksheet

18. Category Cover Sheet with Entrants in rank-order within Category

BG

CATEGORY	PROJECTID	ENTRANT LAST, FIRST NAME	COMPOSITE	RANK IN CATEGORY	RANK	Z-Rank
 BG		Ra	56.000	1	32	96
 BG		Pa	55.000	2	44	141
 BG		Ch	54.000	3	61	53
 BG		Wa	53.750	4	67	184
 BG		Dla	53.500	5	70	99
 BG		Ka	53.250	6	77	104
 BG		Po	53.250	7	79	161
 BG		Ot	53.000	8	85	83
 BG		Zh	53.000	9	90	202
 BG		De	51.250	10	144	178
 BG		Sri	51.250	11	146	197
 BG		Sie	51.250	12	147	336
 BG		Rag	50.750	13	162	205
 BG		Wa	50.000	14	184	251
 BG		Lee	49.750	15	194	260
 BG		Wu	49.500	16	204	276
 BG		Alfo	49.250	17	212	265
 BG		Sel	49.250	18	213	274
 BG		Sur	49.000	19	236	482
 BG		Zhe	48.750	20	250	481
 BG		Hsu	48.750	21	252	590
 BG		She	48.500	22	268	372

①9 for judges - label for student's entry

19. Example label affixed as cover page to printout of Entry for judge review, reflecting evaluator scoring/ranking

Category

Project ID

Agga [REDACTED], Am [REDACTED]

MA 83

Score: 55.5 Rank: 34

Z-Score: 1.3829 Z-Rank: 47

RANK within Category: 4

LABEL for
Judging

20

Category change / FTO management during evaluation

20. Rules Review / Category Change tracking sheet

Intel Science Talent Search

REQUEST FOR CATEGORY CHANGE

Project ID number _____ Proposed Category _____

Current Bundle number _____

Staff instructions:

Please put a RED X on the bundle cover sheet thru the project listed above

Remove this project from the score sheets of the following reviewers

Please add the above project in RED to Category/Bundle number

Please add this project number to the score sheet of the following reviewers

Please initial and return this form to Diane once completed:

Finished _____

(21) Evaluator report card

21. Evaluator report card with statistical analysis of each evaluators' judging (total/min/max/mean/median)

2011/2012

STS EVALUATOR SCORE ANALYSIS

02/14/12
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PAGE 1

EVALUATOR NAME	CAT	# SCORES	PROJ MAX	PROJ MIN	PROJ MEAN	PROJ MEDIAN	COMP MAX	COMP MIN	COMP MEAN	COMP MEDIAN
Te	BE	61	5.00	1.50	3.107	3.000	35.00	10.50	22.033	22.000
Jo	PS	31	5.00	2.00	3.331	3.500	35.00	14.00	23.605	24.000
Gi	BN	69	4.75	1.50	3.819	4.000	34.25	11.25	27.257	28.750
Su	EV	55	4.50	1.00	2.800	2.750	32.50	8.50	19.955	18.500
Ja	BE	61	5.00	1.00	3.078	3.500	34.00	9.50	23.955	25.500
Ge	EV	55	4.50	1.00	2.155	2.000	31.25	7.00	15.641	15.000
Br	PH	64	4.75	0.25	3.051	3.250	33.00	1.75	21.766	23.125
Ra	ME	58	4.50	1.00	2.845	2.625	30.25	10.75	21.884	21.125
Sa	CS	40	5.00	0.25	3.019	3.000	35.00	3.25	22.569	22.500
Ku	MI	57	5.00	0.50	2.610	3.000	35.00	4.75	19.285	19.000
Pa	BI	43	4.50	2.00	3.488	3.500	31.25	14.75	24.395	24.750
Pe	EN	45	5.00	1.00	2.972	2.750	35.00	12.00	22.333	21.500
Ar	BE	59	5.00	1.00	2.623	2.250	34.75	7.00	18.847	16.000
Br	MI	57	5.00	3.00	3.724	3.750	35.00	21.00	26.912	26.500
Ja	BI	43	5.00	1.00	2.895	3.000	35.00	7.00	20.942	20.250
Ke	BE	57	4.50	3.00	3.890	3.750	32.75	22.50	27.364	27.250
Ke	ME	59	5.00	2.25	3.564	3.500	35.00	15.75	25.356	25.750
El	BI	42	5.00	1.00	3.488	3.500	35.00	7.00	23.911	24.250
Di	BN	69	4.75	1.00	3.036	3.250	32.75	9.50	21.091	21.750
Ph	CH	63	5.00	1.00	3.393	3.500	35.00	7.50	24.417	24.500
Ge	EV	55	4.75	2.50	3.900	4.000	33.25	20.00	27.850	28.000
IK	ME	59	4.25	0.25	2.047	1.750	28.50	1.75	14.648	13.250