

## **ASA Member Initiative Proposal**

Submitted: February 1, 2013

<http://www.amstat.org/about/MemberInitiativesInstructions.cfm>

**Title:** Developing and Piloting a Partnership ASA Mentorship Program

**Requested Budget:** \$11,700

**Contact Individual:** Amarjot Kaur on behalf of the Committee on Applied Statisticians

### **Brief Description:**

Networking can be daunting. We've all been there, interested in meeting others in our profession, to quickly learning the ropes, and improve our careers and contributions society. But finding a mentor, especially for new ASA members, has its challenges. For one, many statisticians are introverted, or even if we are extroverted it can be difficult at times to find someone with i) a similar background, ii) an interest to meet and mentor (or mentee), and iii) the ability to provide useful feedback.

The Committee on Applied Statisticians (CAS) proposes to develop an ASA Applied Statisticians Mentorship Clearinghouse Program. Mentorship initiatives targeted to practicing statisticians have been made in a variety of ASA units, including some sections, some chapters, and some committees. Past president Sastry Pantula has written two AMSTAT News columns on mentoring. Yet, dozens of people have come to CAS asking if such a program exists. Thus, we propose to develop and pilot a program to support ASA members who self-identify as applied statisticians and seek mentoring. If we receive funding, our committee would i) plan a program including clearinghouse, consultative, and selected hands-on mentoring activities, ii) pilot these activities in consultation with the Membership Council and other units of ASA which have or have had mentorship initiatives targeting applied statisticians, iii) perform hands-on mentoring for selected individuals, iv) monitor the program's results, and v) make recommendations for a continuing ASA mentoring program.

The scope of our pilot will focus on self-identified applied statisticians, both recent masters and PhD graduates, as well as statisticians who have been out of graduate school for 5 to 12 years. We will work with self-identified applied statisticians in all areas including: academia, industry, and the government sector. No group of statisticians will be excluded. As a clearinghouse, and to avoid redundancy, we will consult with the Membership Council and other units of ASA and place individuals who seek assistance from CAS into their ongoing mentoring efforts when it is a good match. Since information about current and past mentoring efforts by ASA units is difficult to access, we will summarize mentoring programs which we can identify in a central location on the existing CAS microsite of the ASA website, which is updated periodically. The hands-on component of this pilot program will focus on 10-25 pairings of applied statisticians over one year of time. The mentors and mentees may choose to then continue their relationships after the first year of the program, or graduate from the

program. A future proposal will include continuing the hands-on component with a larger audience at the 2014 JSM.

*The International Year of Statistics in 2013 is a perfect time to outreach and bring forth the mentoring ideas as a way to promote our profession and engage younger generation of statisticians to further enhance the visibility of our discipline.*

### **Detailed Plan:**

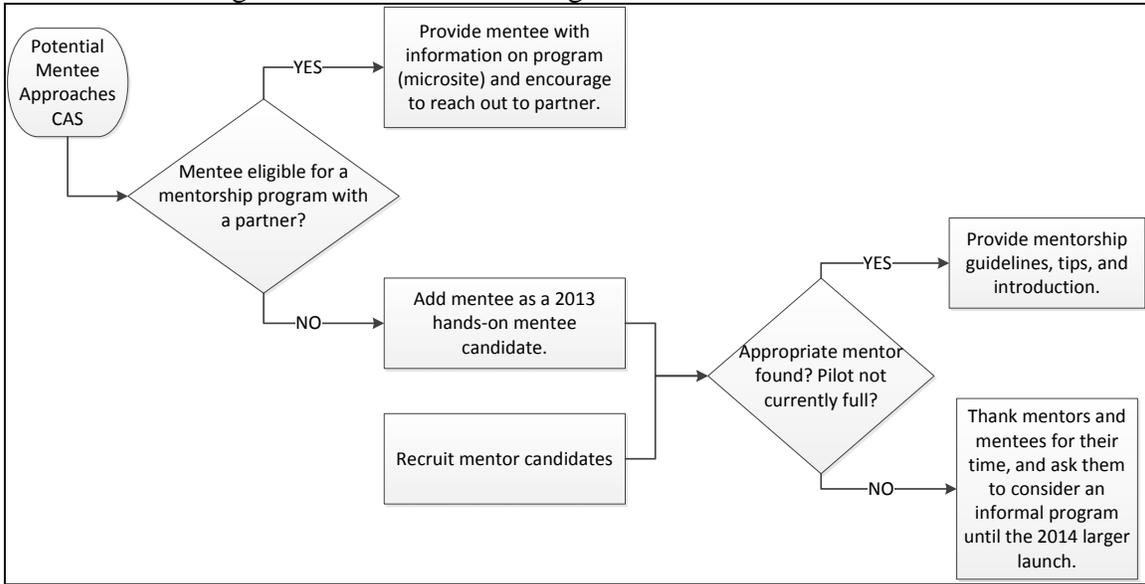
The Committee on Applied Statisticians (CAS) puts forward this proposal and as such agrees to be coordinators and mentors within the proposed Applied Statisticians Mentorship Clearinghouse Program. Our plan will benefit the mentors and mentees, as well as ASA. We have heard first-hand how young applied statisticians often feel overwhelmed at the JSM, as a microcosm, and confused about how best to advance in the macrocosm of their career path. Yet, navigating both of these is easier with every connection made.

CAS has a track record of partnering within ASA to address the career paths of applied statisticians, such as participation in the President's 2012 Career Success Factors Workgroup and the organizing committee for the Conference on Statistical Practice, and regular articles in the AMSTAT News Masters' Notebook column; as well as activities at the JSM to help applied statisticians to connect with resources, such as the 2011 panel discussion: *The World of Applied Statistics: Where Do you Fit In?* and the 2012 *Strategic Career Planning for the Academic Statistical Scientist: Another Kind of 'Survival Analysis'*; and roundtables such as the 2010 *How Can ASA Support the Applied Statistician?*, the 2012 *Minding the Gap*, and the upcoming 2013 *Mentoring Applied Statisticians*.

The proposed mentorship program will leverage, consult with, and increase visibility of existing mentoring efforts of CAS and other ASA units, adding selected hands-on mentoring as needed to give young applied statisticians a solid foot into the door of the JSM and their chosen discipline. We plan to provide a venue at the JSM for applied statistician mentors and mentees, as well as addressing mentoring for those who contact this proposed clearinghouse but do not attend the JSM. We will encourage mentors at the JSM to introduce their mentees to others at JSM, to make them feel welcome and encourage their participation, and to share concrete knowledge of career paths. We will provide resources so that the mentor can recommend participating in other ASA activities at the local level and/or joining a Section or Committee activity. Thus, the mentorship program is expected to enhance career success for applied statisticians and may develop future leaders for the ASA.

This proposal is partitioned into a pilot program in 2013, for which funding is currently requested; our future vision for a proposal for a full-scale program in 2014, which ASA could consider funding in the future; and our future vision of final recommendations to institutionalize a long-term program in 2015 and thereafter.

Exhibit 1: Clearinghouse and Pilot Work Together



Clearinghouse Component

Mentoring efforts have been discussed and implemented by various units of ASA at many times in the past, but it is in the implementation where the challenges lie. Furthermore, the knowledge gained from past mentoring efforts is not easily accessible. Thus we propose to spend the initial months of this proposed initiative identifying and collecting resources and knowledge gained from past and ongoing mentoring efforts targeted to self-identified applied statisticians, and storing them in a section of the existing CAS microsite which will be designated as an Applied Statisticians Mentorship Clearinghouse Microsite.

In order to avoid redundancy of efforts, we will reach out in the early months of the proposed project to leaders of current mentoring efforts, such as those in individual chapters and sections, so that the activities of this proposal are in coordination and synergy with existing efforts, rather than duplicating them. We will achieve this through communications in AMSTAT news, the ASA Communities, and individual-level contacts, seeking partners, voices of experience regarding past mentoring efforts, and ongoing updates on current mentoring efforts. We anticipate rolling out the Applied Statisticians Mentorship Clearinghouse Microsite several months after receiving funding, with twice-a-year updates.

Hands-on Mentoring Component

Regardless of current mentoring efforts in other units of ASA, CAS has received dozens of queries about mentoring of applied statisticians. Part of the work of this project will be to direct such individuals to existing resources, when they appear to be a good match. However, we anticipate that a pilot hands-on component of this project will be useful in certain cases, possibly leading to recommendations regarding future coordination of new efforts in existing or new units of ASA. Thus, we propose a component of this project

which is a small scale implementation of a hands-on mentoring effort, measure its success, and make future proposals and recommendations for expansion.

As mentioned earlier, in general, we will encourage mentors at the JSM to introduce their mentees to others at JSM, to make them feel welcome and encourage their participation, and to share concrete knowledge of career paths. We will provide resources so that the mentor can recommend participating in other ASA activities at the local level and/or joining a Section or Committee activity. Thus, the mentorship program is expected to enhance career success for applied statisticians and may develop future leaders for the ASA.

For mentees, our program may answer important questions including:

- How do you create opportunities for yourself?
- How do you promote yourself?
- How do you network with others?
- How did you get to where you want to be?
- What are next steps?

For mentors, our program may answer important questions including:

- How do you identify and introduce opportunity to others?
- How do you describe your own experiences to others to encourage them to take more strategic risks?
- How do you teach others to network effectively?
- How do you mentor people 1 year out of school? 5 years? 10 years? 15 years? 20 years?

We propose, if funded, to announce this effort through AMSTAT News, the ASA Communities, and individual sections, chapters, and committees, in May, 2013, recruiting 10-25 additional mentors and mentees at that time. Each mentor and mentee will be asked to fill out a short questionnaire to identify their areas of expertise, their affiliations, and other information for matching purposes. Mentees will be eligible if they are self-identified applied statisticians and CAS cannot identify an existing mentoring program within any unit of ASA which the candidate feels is a good match for them. In addition, candidates must be planning to attend the 2013 JSM, as activities will occur there.

We propose to call the group coordinating this effort the *Applied Statisticians Mentorship Clearinghouse Task Force*. This will be primarily a subset of CAS, with appropriate input from partnering organizations and individuals. We will then hold an in-person *kaizen* event in June 2013 for the *Applied Statisticians Mentorship Clearinghouse Task Force* and key stakeholders, where they will meet in person to brainstorm and fill in the details of the plans for the 2013 pilot program. This may include an in depth discussion of important components of mentoring (with input from partners and/or books), specifics of the JSM program, mentor-mentee matches, logistics during the pilot year, and how to measure success.

After the *kaizen* event, the team will match mentors to mentees based on information that they provided in May. More than one matching techniques may be explored to test our methods. We will also work to optimize the matching technique to ensure that we can complete this task again with a larger group in 2014.

In addition, the team will build welcome packets for the mentors and mentees. The packet may provide:

- logistic details
- expectations of the program
- a list of resources (books and contacts) available to them
- an example list of topics that could be discuss by the pair
- a short discussion about expectations.

The welcome packet will be developed from conversations in the kaizen event as well as a literature review of common mentoring practices which will then be tailored for statisticians. The welcome packet will be both emailed and mailed to mentors and mentees before the JSM.

Mentors and mentees will then meet by the end of the JSM for the first time. Additional meetings will be expected throughout the year. We will recommend that each pair meet 4 to 7 times within one year either in person, on Skype, or on the phone.

A survey will be developed to measure the participants' satisfaction (see how to evaluate the success of the pilot for more information). Participants will be asked to complete the survey mid-year and at the end of the mentorship program. Survey results will be analyzed and discussed with key stakeholders as well as select participants to ensure main points are properly captured. The results of the analysis and discussions will then feed into 2014 recommendations. 2014 recommendations will be made available after the mid-year survey.

At the end of the mentorship cycle, we plan to also send a final thank you packet to mentors and mentees. This thank you packet may outline survey results, recommendations to improve existing mentorship relationships, and ideas for continuation of the program after August. An email may also be sent asking them to nominate others for the mentorship program in 2014 and/or ask them to serve as a mentor or mentee in the future.

If funded in 2014 as well, we plan to continue to increase the number of mentor pairs. Each year, if another mentorship program is available for a mentor or mentee, we will encourage participation in the other ASA mentorship program. We do not want to compete with other areas of the ASA, but to complement them. Even though other groups do offer mentorship programs, we believe the demand by applied statistician mentees is larger than the number of current programs. Thus, we will continue to bridge the gap and/or provide guidance to our partners based on our findings.

Team Members and Roles:

CAS Members:

- Amarjot Kaur
- Marlene Egger
- John Lin
- Shari Messinger
- Richard Morris
- Mark Otto
- Keith Schleicher
- Erin Tanenbaum
- Eric Vance

Other Members:

- Jennifer Gauvin (past CAS Chair)
- Emily Olsen (provide input as a Mentee)

Roles:

- Chair (1 person)
- Logistics and Messaging (1 to 2 people)
- Clearinghouse Mentorship detailed planning team (1 to 2 people)
- Hands-on Mentorship detailed planning team (2 to 4 people)
- Survey creation and analysis team (2 people).

Target Timelines/Milestones:

Timelines are based on the member initiative being accepted by April 30.

<b>Funding Year</b>	<b>Month/Year</b>	<b>Details</b>
Pre-funding	March/April 2013	<ul style="list-style-type: none"><li>• Advertise that we are seeking partners to learn of past/current mentoring efforts.</li><li>• Continue efforts to collect resources and make connections to recent/ongoing mentoring programs.</li><li>• Request time with JSM BOD, COC, COS, COM, Membership Council, etc. to advertise program.</li></ul>
2013	April 2013	<p>Kick-off 2013 Funding Project.</p> <ul style="list-style-type: none"><li>• Identify (and assign) people to interview within the ASA about mentorship programs.</li><li>• Interview/partner with ASA leadership/staff/units regarding mentorship efforts and coordination.</li><li>• Start to develop clearinghouse framework.</li><li>• Continue to identify potential mentors for pilot (CAS committee members are the first 9 mentors).</li><li>• Initiate securing mentees.</li></ul>

		<ul style="list-style-type: none"> <li>• Identify (and assign) books for CAS members to read on mentorship.</li> <li>• Start to develop mentorship materials for mentors and mentees (welcome pack with overview of program, expectations, tips and ideas).</li> <li>• Start to develop sub-site of CAS microsite to support clearinghouse and hands on mentorship.</li> </ul>
2013	May 2013	<p>Kick-off Program outside of CAS</p> <ul style="list-style-type: none"> <li>• <u>Microsite</u> goes live to support clearinghouse and hands-on components,</li> <li>• <u>Communicate</u> the program via AmStat News and ASA Communities,</li> </ul>
2013	June 2013	Applied Statisticians Mentorship Clearinghouse Committee Task Force and key stakeholders meets in person to brainstorm and discuss project flow, and detailed plans.
2013	July 2013	<p>Pilot project development complete.</p> <ul style="list-style-type: none"> <li>• 2013 recruitment closes.</li> <li>• Assign mentors to mentees.</li> <li>• welcome packet sent to mentors and mentees with guidelines of the program, tips and ideas, and links to resources.</li> </ul>
2013	Pre-JSM 2013	Program announced by ASA leaders (e.g. MCC representative) to larger community
2013	JSM 2013	<ul style="list-style-type: none"> <li>• Advertise program at COC, COS, Membership Council, COM, CAS business meetings and mixers.</li> <li>• Inviting more partners and gather information for 2014 efforts.</li> <li>• 2013 Mentors to meet with mentees by the end of JSM (phone or in person).</li> <li>• Host roundtable luncheon on Mentoring Applied Statisticians</li> </ul>
2013	August-September 2013	<ul style="list-style-type: none"> <li>• Organize 2014 JSM Invited Session on Past and Current ASA Statistician Mentoring Efforts</li> <li>• Develop questionnaire for hands on pilot mentors and mentees</li> </ul>
2013	August 2013-August 2014	<ul style="list-style-type: none"> <li>• Mentors meet with mentees 3 to 6 times.</li> </ul>
2013+	August - ongoing	<p>Continually update microsite to meet needs for:</p> <ul style="list-style-type: none"> <li>• Microsite</li> <li>• Hands-on mentoring</li> </ul>

2013	November-December, 2013	<ul style="list-style-type: none"> <li>• Update ASA leadership on the efforts.</li> </ul>
2013	January 2014	<ul style="list-style-type: none"> <li>• Survey 2013 Mentors and Mentees.</li> </ul>
2013	February 2014	<ul style="list-style-type: none"> <li>• Analyze 2013 mid-year survey information.</li> <li>• Make recommendations for a continued program.</li> <li>• Send follow-up mailing to mentors and mentees with ideas for continuing the relationship, finding another mentor, and/or graduating to become a mentor.</li> </ul>
2013	January-February 2014	Give update to COS, COC, Leadership Council Executive Committee meetings and solicit ongoing information on mentoring efforts
<b>Potential Long-term Plan (out of scope for this year's funding):</b>		
2014	April 2014	<i>Kick-off 2014 project.</i> <ul style="list-style-type: none"> <li>• <i>Survey 2013 Mentors and Mentees.</i></li> <li>• <i>Initiate large scale recruitment for mentors and mentees,</i></li> <li>• <i>Initiate location search for 2014 mentor/mentee JSM mixer.</i></li> </ul>
2014	June 2014	<i>Analyze second 2013 survey information.</i>
2014	July 2014	<ul style="list-style-type: none"> <li>• <i>Finalize 2014 mentorship guidelines and recommendations.</i></li> <li>• <i>Close 2014 recruitment for mentorship program.</i></li> <li>• <i>Send welcome packet to mentors and mentees via e-mail and mail.</i></li> </ul>
Long-term	Annual JSM	<i>Annual update to BOD, COC, COS, COM, and other partners.</i>
2014	JSM 2014	<ul style="list-style-type: none"> <li>• <i>Mentors to meet with mentees by the end of JSM.</i></li> </ul>
2014	August 2014 August 2015	<ul style="list-style-type: none"> <li>• <i>Mentors and mentees to meet 3 to 6 times.</i></li> <li>• <i>CAS to monitor program throughout year.</i></li> </ul>
2014+	February 2015	<i>ASA Applied Statisticians Mentorship Clearinghouse Task Force and ASA Committee on Applied Statisticians Committee to make recommendations to ASA to continue the program. This may include a cost-free option, a low-cost option, and a higher cost option. The pro's and con's of each option will be included along with a recommendation for the program.</i>
2014+	JSM 2015	<ul style="list-style-type: none"> <li>• <i>2014 Mentorship Program Complete</i></li> <li>• <i>Organize Social Mixer to receive formal and informal feedback on the program.</i></li> <li>• <i>Potentially kick-off 2015-2016 program.</i></li> </ul>

### **How Will You Evaluate the Success of the Pilot Project:**

Success will be measured by the satisfaction of the stakeholders with the pilot program. A subcommittee of CAS will perform evaluation activities:

- ASA staff will be interviewed for feedback, including about the efficiency and impact on the ASA office.
- Each mentor and mentee will answer a brief survey using surveymonkey or another no-cost option. The survey will measure satisfaction with 1. who they were matched with, 2. the guidelines they were provided, 3. the ease of participating in the program, 4. the overall satisfaction with the relationship, and 5. the impact of the relationship on the mentee’s career. In addition, the survey will measure their ability to adhere to the mentorship program and will seek recommendations for moving forward with the program.
- Representatives of partner units of the program will be interviewed or surveyed for feedback on efficiency, visibility, enhancement of their own efforts

Interview responses will be qualitatively summarized; and survey results, tabulated. In addition, comments and recommendations will be qualitatively reviewed to provide direction for future efforts. The results will be reported to stakeholders and participants to ensure that the results have been interpreted in a way that makes sense to them.

The subcommittee will summarize results, including successes, weaknesses, and ways to improve for future plans. The report will be shared with ASA Membership Council Committee and to the ASA Board of Directors.

### **Budget Justification:**

Budget is being requested to pay for

<b>Description</b>	<b>Cost</b>
Books	\$20 X 9 books = \$180
CAS? or ASA Applied Statisticians Mentorship Clearinghouse Task Force? and selected stakeholders? meeting to formalize plans (Kaizen event for rapid progress on a large scale project)	9 X \$1000 = \$9,000
Printing and Mailing Costs	\$5 X 50 people = \$250
Kick-off with mentors and mentees, Social mixer to kick-off the year	\$20 X 50 people = \$1,000
Teleconferencing funds (will only provide if a no-cost option such as Skype is not available) for 4 90 minute phone calls per pairing.	\$270 (or less)
Closing Program Get together	\$20 X 50 people = \$1,000
<b>TOTAL</b>	<b>\$11,700</b>

The proposed budget is minimal, the costs outlined above will ensure a high quality pilot and successful long-term plan. CAS has a track record of successful leveraging of all-day in person meetings to allow for a high level of progress to be made quickly. A formal agenda would be created to ensure substantial progress is made on i) Coordination with selected stakeholders, ii) how to match mentors to mentees, iii) how to provide guidance to mentors and mentees, iv) logistics, and v) other important game changing details. It is for this reason that we propose meeting as a team at ASA headquarters or another location prior to finalizing the 2013 pilot program.

The costs we propose are small, yet the impact to those mentored and to the profession could be substantial. If mentors and mentees are happy with the outcome, they will likely continue their ASA membership and encourage others to join ASA to receive similar benefits. A mentorship program may increase member participation at the JSM and other ASA events, committees, and section. Thus, the costs might be offset to those impacted in the short term (20 to 50 people) and eventually to a larger audience with a proposed long term roll-out of the program (2014). The offset in costs may be divided into short term and long-term gain.

For example, the initial pilot will impact 10 to 25 mentees. JSM participation will be encouraged for both mentors and mentees. Thus, in the short run JSM participation may increase in the first year in those enrolled in the program. The mentorship guidelines will also highlight and encourage mentors to propose involvement in ASA activities such as i) Publication, ii) Joining a Section or Committee, iii) Attending one or more conference, iv) Attending local ASA events. Thus, participants should become more involved in the ASA, offering additional volunteer services and fees for conferences, meets, and membership. Thus, the mentees may offset the costs in the long-run as well with loyalty to the ASA. Mentors may also feel a sense of pride in their experience and may become more involved in the ASA as a result.