



Education, Science, and Employment By: Kasey Wertheim

Several people have mentioned problems associated with requiring applicants for latent print examiner positions to have a 4-year science degree. Concerns include:

1. Chemists applying for LPE positions as a stepping stone to other disciplines;
2. Inability to hire experienced applicants with no science degree;
3. #2 resulting in increased training budgets to train new examiners; and
4. No real advantage for the LPE who does have a science degree

The issue of minimum educational requirements is being addressed in several venues, including SWGFAST, ASCLD, IAI, etc. As Andy Kearns posts [on the CLPEX message board], "ASCLD/LAB asks that LP examiners have '...a baccalaureate degree with science courses,' and places that under the 'important' category of requirements. They don't say how many science courses, or which courses they want."

The recent SWGFAST Minimum Qualifications for Latent Print Examiner Trainees (JFI vol 52 No. 3) recommends that by the year 2005, a bachelor's degree from an accredited college or university should be required. No science requirements are mentioned in the SWGFAST 'draft for comment.' The SWGFAST guidelines also allow for experience prior to the 2005 cutoff according to the following: 1) Bachelor's degree OR 2) Associates degree or sixty college semester hours, plus two years job-related experience OR 3) High school diploma or equivalent, plus four years job-related experience. (Job-related experience includes tenprint work, AFIS tenprint / latent work, crime scene processing, crime scene photography, or criminal investigation.) SWGFAST also recommends that LPE trainees have no prior felony convictions, have a pre-employment drug screen, and undergo a background investigation. The periodic review - draft for comment period - ends August 12, 2002 for these SWGFAST Minimum Qualifications for Latent Print

Examiner Trainees. (Please send your comments to Alan McRoberts, chairperson for SWGFAST, at microberts@scafo.org before that date to have your recommendations discussed at the next SWGFAST meeting.)

Pat Wertheim recently related that degree requirements he has seen proposed for certification or hiring set the cutoff at some point in the future and include a grandfathering clause to assure those already in the field that their positions are not in jeopardy. Further, he related that at AZ DPS, they have far more qualified applicants with degrees than they have openings.

The big concern seems to be the future. Some have voiced their concern that future latent print examiners will need to have degrees, and the preferred choice will be the applicant with a science degree. The question remains, is requiring a science degree, or a certain number of hours in science courses to fill a vacant latent print examiner position "overkill?" As Graham Ford posted, "Does the possession of a BS degree ensure the better making of a latent print examiner? The simple answer most assuredly - no. Would a degree in "concentration", "an eye for detail" and "common sense," provide for a better quality examiner? Most assuredly - yes." So perhaps as we look toward the future, we should aim for providing our field with the best of both worlds.

The Illinois State Police has had a degree requirement in place for 25 years. Dave Grieve passed on the following to encourage each of us in this regard:

Minimum Qualifications

Throughout history, certain professions have undergone change. Abraham Lincoln became an attorney by apprenticeship, as had the person who agreed to teach him, and Lincoln's

reputation as a trial lawyer indicates he became a skilled individual who represented his clients well. As the law became increasingly complex and specialized, the apprentice method slowly gave way to requirements of formal education, bar examinations, licensing and regulations. This was not an easy transition, for there were arguments that additional qualification would severely limit the candidate pool and prohibit future Lincolns from occurring. Perhaps these nay Sayers were right and someone of potential was denied the right to practice, but there is no shortage of good lawyers, oxymoron aside.

A study of fingerprint history reveals that contemporary examiners function in an environment that few of the pioneers would have imagined. In the beginning, one person might easily do all identification functions – crime scene, latent print visualization, fingerprint recording, classification, analysis, comparison, evaluation and might even assist in the arrest. Evidence potential was limited and the techniques were rather easy to master. Instances in which the individualization of a crime scene latent occurred were generally accepted in a court of law without challenge. One had only to establish a modicum of training plus some experience to be accepted as an expert.

Minimum qualifications to conduct examinations and testify in a court of law are beginning to change. Fingerprint identification is in a transition period that began over two decades ago, but one that has gained momentum due to the Daubert criteria, especially as interpreted by Judge Pollak. The demands of evidence examination have increased considerably during this time, requirements which have vastly enlarged evidence potential and are largely based upon chemical procedures. Debates may continue as to whether latent print individualization methodology is a science or not, but the entire spectrum of examiner duties has



become undeniably scientific. The movement of latent print examination is toward the laboratory, not away, and this trend has prompted a review of minimum qualifications for the examiner.

For nearly 20 years, I have trained new hires in the area of latent print examination, and the total number of students I have taught approaches 100. All possessed a Bachelor's degree, and for the past five years, that degree had to be in a "hard" science. Previously, we did allow degrees in related fields but did require a minimum number of hours in chemistry or biology. While this restriction may have denied someone who would have done well from entering our program, this is a matter of conjecture, not fact. What I have observed is that only one person with a BS in science has failed to meet the standards of the program. Seven others failed to complete training; these individuals had a Bachelor's, but not in science.

My experience with a rather large sampling has indicated distinct

advantages for the trainer and the employing agency to require formal science education in regards to essential elements of examination duties. While not a full list by any means, these advantages of a degree in science include the following:

- Trainees possess a comprehension of the scientific method;
- Trainees easily develop an acceptance of biological uniqueness as a result of external stresses in fetal development;
- Trainees understand the differentiation between statistical modeling and biological uniqueness;
- Trainees are already familiar with scientific protocols;
- Trainees are more familiar with other scientific disciplines;
- Trainees are accustomed to proper analytical methods and documentation;
- Trainees display a better understanding of logics;
- Trainees generally possess an improved mental discipline;
- Trainees exhibit a greater poten-

tial related to future challenges of science versus non-science.

As in any endeavor, exceptions may occur and anecdotal examples of success without these minimum requirements abound. Nevertheless, in the practical world of employment and training practices, any employer is wise to adhere to "best possible" scenarios. Providing full training is expensive and adhering to proved minimum requirements minimizes loss. The advantages of establishing minimum requirements that include a degree in science have been demonstrated in today's world, and these far exceed the disadvantages based upon the speculation that exceptions would do just as well. As far as tomorrow's world is concerned, those with a degree in science who are hired and trained now can meet the challenges better prepared.

(This story came from The Detail Archives and can be found at www.CLPEX.com)

*****43rd Annual Training Conference Information*****

NIBIN TRAINING SESSION

The moderator for this training session is Hamilton Bob, United States Treasury, Bureau of Alcohol, Tobacco and Firearms. The topics will include:

- ⇒ Status of the NIBIN Program
Patti Galpo, United States Treasury, Bureau of Alcohol, Tobacco and Firearms
- ⇒ IBIS Laboratory Protocol
Jerry Miller, United States Treasury, Bureau of Alcohol, Tobacco and Firearms
- ⇒ Why Image Bullets?
TBA
- ⇒ NIBIN Correlation Schemes, Database Partitions and other Household Terms
Ben Wilson, United States Treasury, Bureau of Alcohol, Tobacco and Firearms
- ⇒ NIBIN Network and System Security
Ben Wilson, United States Treasury, Bureau of Alcohol, Tobacco and Firearms
- ⇒ Equipment and Software Updates
FTI
- ⇒ Question and Answer Session
ATF and FTI Staff