OSAC RESEARCH NEEDS ASSESSMENT FORM

Title of research need: Population Frequency of Class Characteristics: Footwear in the United States

Keyword(s): Footwear, Class, Population, Frequency, Density, Wear, Size, Pattern

Submitting subcommittee(s): Footwear & Tire

Date Approved: 07-Mar-2016

(If SAC review identifies additional subcommittees, add them to the box above.)

Background Information:

1. Description of research need:

Determine the frequency of occurrence of footwear class characteristics in specific and well-defined populations in the United States. Any population of interest must be defined spatially, temporally, demographically, logistically, etc. Class characteristics include brand, make, model, size, wear, pattern, etc.

2. Key bibliographic references relating to this research need:


3a. In what ways would the research results improve current laboratory capabilities?

The information gained from this research would build upon frequency studies relating to randomly acquired characteristics. The ability to cite the frequency of certain class characteristics in defined populations will assist in reinforcing the strength of the examiner’s conclusions.

3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

The results of this research would support the basis of footwear and/or tire examiner’s opinions when dealing with class characteristics, such as design, size, and wear. Providing the frequencies of certain class characteristics within known populations would give an objective and quantitative basis to the qualitative model that current rarity estimates are based upon. The results of this research would support footwear and/or tire examiner’s opinions that are presented in court. This would be beneficial to the jury in giving weight to expert testimony, and could potentially be used as a statistical basis for opinions.

3c. In what ways would the research results improve services to the criminal justice system?

The results of this research would support footwear and/or tire examiner’s opinions that are presented in court. This would be beneficial to the jury in giving weight to expert testimony, and could potentially be used as a statistical basis for opinions.


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<thead>
<tr>
<th>Major gap in current knowledge</th>
<th>Minor gap in current knowledge</th>
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<tbody>
<tr>
<td>No or limited current research is being conducted</td>
<td>I</td>
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<tr>
<td>Existing current research is being conducted</td>
<td>II</td>
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</tbody>
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This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.
Approvals:

Subcommittee Approval date: 07-Mar-2016

(Approval is by majority vote of subcommittee. Once approved, forward to SAC.)

SAC

1. Does the SAC agree with the research need?  Yes x  No
2. Does the SAC agree with the status assessment?  Yes x  No

If no, what is the status assessment of the SAC:

Approval date: 17-Mar-2016

(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)