

<b>42 Title</b>	<b>Shining New Light on the Hawthorne Illumination Experiments</b>
Author	Masumi R. Izawa, Michael D. French, Alan Hedge
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Abstract	<p><b>Objective:</b> This study provides an historical and statistical analysis of archival data from the Hawthorne illumination experiments.</p> <p><b>Background:</b> Previous accounts of the illumination experiments are fraught with inconsistencies because they have been based on secondary sources. The general consensus has been that variations in light levels had no effect on worker productivity at Hawthorne. All reports and data were thought to have been destroyed, but an archive at Cornell University was found to contain copies of the original documentation and much of the data from all three illumination experiments. Conclusions were originally drawn from visual comparisons of productivity graphs, and the data have never been properly statistically analyzed.</p> <p><b>Method:</b> Archival reports, notes, photographs, and letters on the experiments were consulted. Productivity data were extracted from the tables and graphs in the reports and statistically analyzed for each experiment.</p> <p><b>Results:</b> Previously unpublished details of the illumination experiments emerged. An effect of lighting on productivity was found in the first treatment sequence for the first experiment, but this finding was not confirmed in the second sequence or in the second and third experiments.</p> <p><b>Conclusion:</b> Experimental results provided inconsistent evidence of an association between light levels and productivity. All three experiments were found to be seriously flawed.</p> <p><b>Application:</b> This study challenges popular accounts of the “Hawthorne effect,” and the shortcomings of these experiments also have implications for the design of field studies.</p>