

Apr 12th, 8:30 AM - 11:30 AM

# Textile Properties of Pencil Skirts: Does Price Matter?

Madison Hataway  
*Louisiana Tech University*

Julia Morrison  
*Louisiana Tech University*

Sadie McGill  
*Louisiana Tech University*

Kathleen Heiden  
*Louisiana Tech University*

Follow this and additional works at: <https://digitalcommons.latech.edu/ans-research-symposium>

---

## Recommended Citation

Hataway, Madison; Morrison, Julia; McGill, Sadie; and Heiden, Kathleen, "Textile Properties of Pencil Skirts: Does Price Matter?" (2018). *ANS Research Symposium*. 13.  
<https://digitalcommons.latech.edu/ans-research-symposium/2018/poster-presentations/13>

This Event is brought to you for free and open access by the Conferences and Symposia at Louisiana Tech Digital Commons. It has been accepted for inclusion in ANS Research Symposium by an authorized administrator of Louisiana Tech Digital Commons. For more information, please contact [digitalcommons@latech.edu](mailto:digitalcommons@latech.edu).

## **Textile Properties of Pencil Skirts: Does Price Matter?**

Madison Hataway<sup>1</sup>, Julia Morrison<sup>1</sup>, Sadie McGill<sup>1</sup>, and Kathleen Heiden<sup>2</sup>, PhD

<sup>1</sup> *Undergraduate Student, School of Human Ecology, Louisiana Tech University*

<sup>2</sup> *Associate Professor, School of Human Ecology, Louisiana Tech University*

---

The purpose of this research project was to test the performance of three different brands of pencil skirts from Gianni Bini, Valerie Stevens, and H&M to determine if there is any differences based on textile properties. The general construction of each skirt was evaluated.

The construction included yarn structure, weave structure, fabric weight, and thread count. To test the dimensional stability for each skirt was measured by hand tacking four marks (front length and width and same for the back) that were 10x10 inches or 10x5 inches depending on width and length of skirt. The skirts were laundered once and the marks were measured for recording dimensional stability. The same process was done after the skirt was laundered three times and ten times. Appearance retention was also tested on the laundered skirts to compare wrinkle resistance to unlaundered skirts. Just like dimensional stability, appearance retention was compared after one, three, and ten washes. To test the ability of fabrics to release oil stains during laundering, different everyday substances were applied to our fabric sample. The substances were peanut butter, apple sauce, red wine, butter, oil, ketchup, ranch dressing, mustard, and grape jelly. After the sample sat overnight and was washed, and compared to the AATCC Resistance to Staining Chart. To see if the fabric bleaches easily, we each used two fabric samples, one drop of bleach on one and one drop of non-chlorine bleach on the other. We let the samples sit for twenty-four hours and then rinsed them. The samples were rated on a fail or pass basis with any sign that it was stained. Wickability was tested by holding a ten inch strip pinned to a pencil in a glass of water. The fabric was held on the top portion of the water to test if the fabric was wickable. The distance the water traveled up the fabric was measured after five minutes.

Gianni Bini had the greatest shrinkage after the first laundering. However, the other two brands exceeded the industry standard for shrinkage. The appearance retention of Gianni Bini was the best overall after laundering. All brands passed the non-chlorine bleach test. Gianni Bini was the only brand to pass the chlorine bleach test. When tested for colorfastness to perspiration, all brands exceeded the minimum industry standard of three. Although the fiber contents were oleophilic, none of them held on to oils. All of the brands scored a perfect five which outperformed the minimum industry standard of three.

The performance of the skirts did not reveal an exceptional skirt for any one brand, but it varied on all aspects. Gianni Bini had the better quality fabric overall. Since Gianni Bini's advantages outweighed the disadvantages, it is the best buy in terms of quality.