Chart, table

Description automatically generated

**Figure 1.1:** Clusters of Metro\_Female Data using Silhouette Method

In Figure 1.1, the Silhouette Method for determining the number of clusters for the Female\_Metro data was created. The optimal number of clusters appears to be two with a score of 0.607.

Chart, table

Description automatically generated

**Figure 1.2:** Clusters of Metro\_Male Data using Silhouette Method

In Figure 1.1, the Silhouette Method for determining the number of clusters for the Metro\_Male data was created. The optimal number of clusters appears to be two with a score of 0.474.

Table

Description automatically generated

**Figure 1.3:** Clusters of Western\_Female Data using Silhouette Method

In Figure 1.3, the Silhouette Method for determining the number of clusters for the Western\_Female data was created. The optimal number of clusters appears to be two with a score of 0.771.

Table

Description automatically generated

**Figure 1.4:** Clusters of Western\_Male Data using Silhouette Method

In Figure 1.4, the Silhouette Method for determining the number of clusters for the Western\_Male data was created. The optimal number of clusters appears to be four with a score of 0.649.

Chart

Description automatically generated

**Figure 1.5:** Clusters of Eastern\_Female Data using Silhouette Method

In Figure 1.5, the Silhouette Method for determining the number of clusters for the Eastern\_Female data was created. The optimal number of clusters appears to be two with a score of 0.679.

Chart

Description automatically generated

**Figure 1.6:** Clusters of Eastern\_Male Data using Silhouette Method

In Figure 1.6, the Silhouette Method for determining the number of clusters for the Eastern\_Male data was created. The optimal number of clusters appears to be 14 with a score of 0.556.

Chart, table

Description automatically generated

**Figure 1.7:** Clusters of Southwestern\_Female Data using Silhouette Method

In Figure 1.7, the Silhouette Method for determining the number of clusters for the Southwestern\_Female data was created. The optimal number of clusters appears to be two with a score of 0.700.

Chart

Description automatically generated

**Figure 1.8:** Clusters of Southwestern\_Male Data using Silhouette Method

In Figure 1.8, the Silhouette Method for determining the number of clusters for the Southwestern\_Male data was created. The optimal number of clusters appears to be 13 with a score of 0.540.