Side by Side Comparison of Weighted and Unweighted Two-Step Kernel Method with 4 & 10 Rare Cell Types

Kelvin Njuki

2025-02-06

0.1 Case 1: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 4 are Rare.
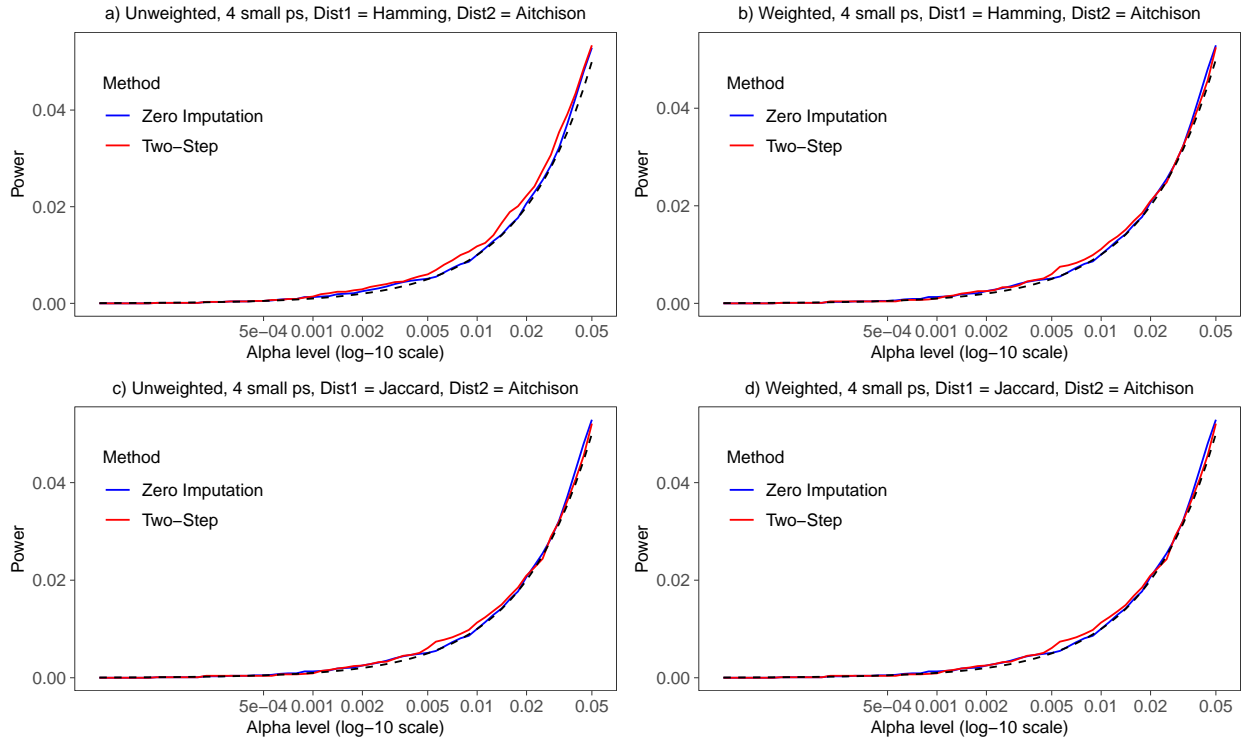

Figure 1: Case 1: No difference - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.2 Case 1: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 10 are Rare.
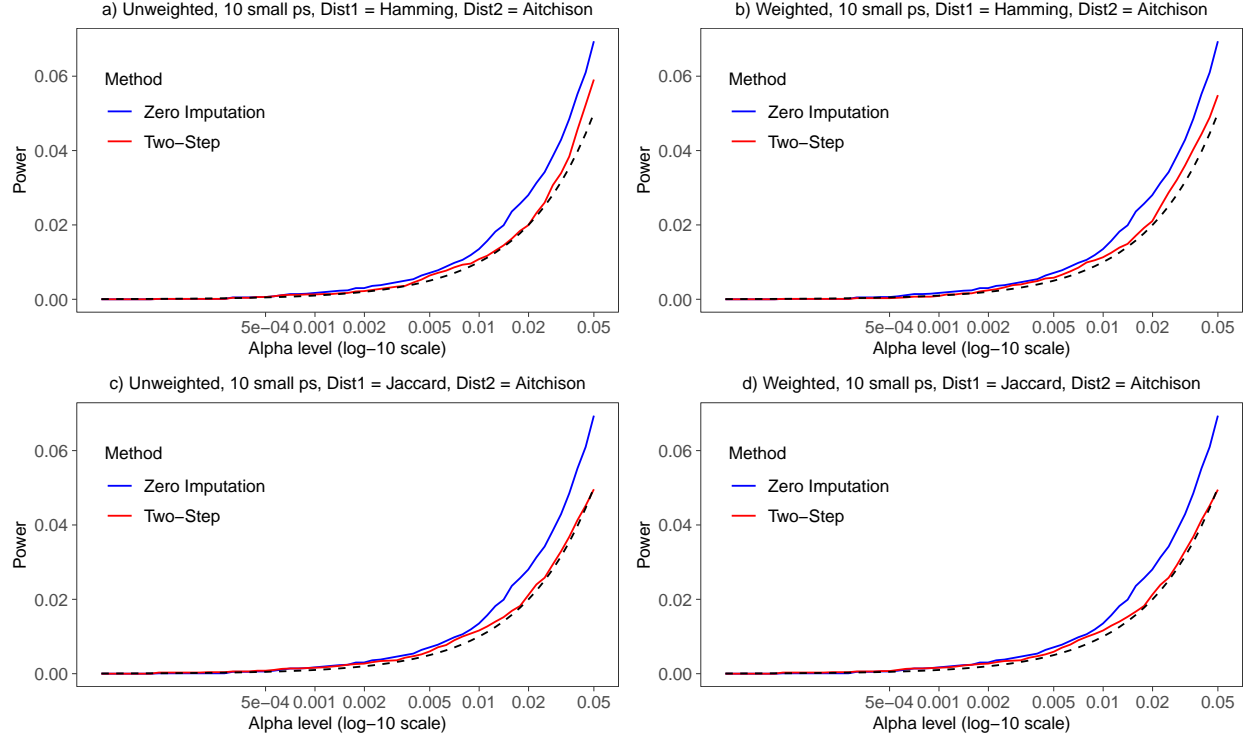

Figure 2: Case 1: No difference - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.3 Case 2: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 4 are Rare.
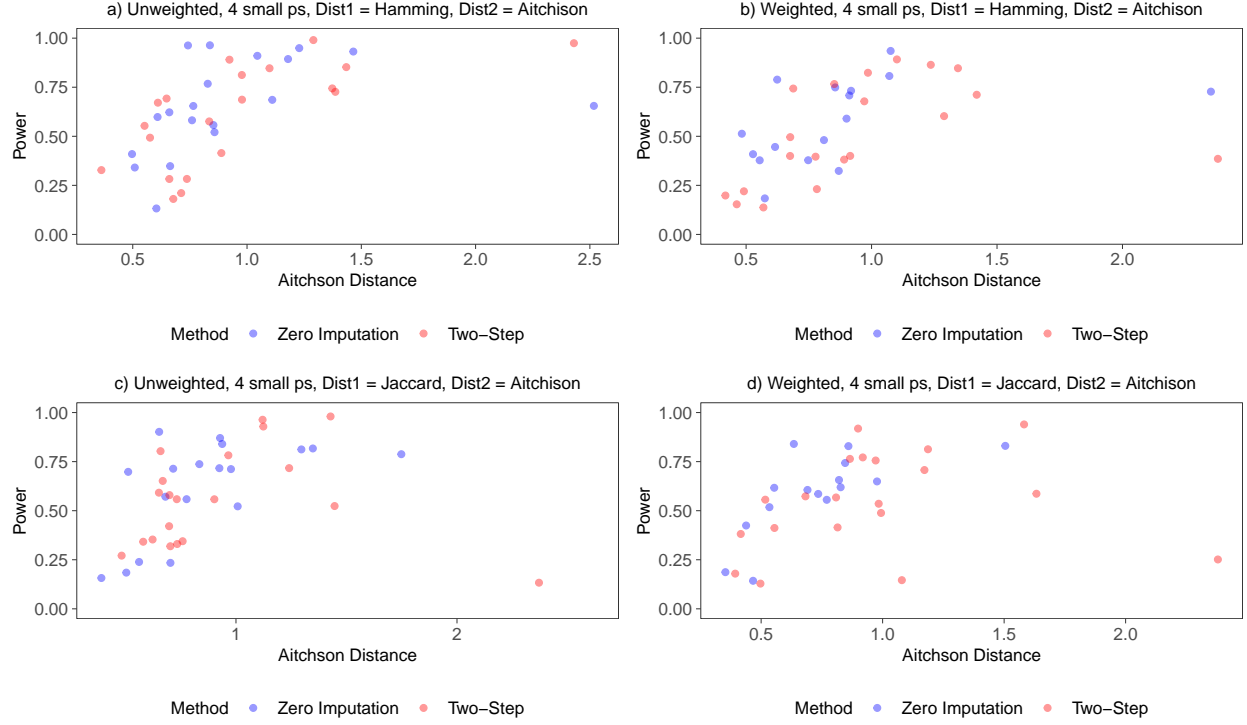

Figure 3: Case 2: Small difference in all (20) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.4 Case 2: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 10 are Rare.
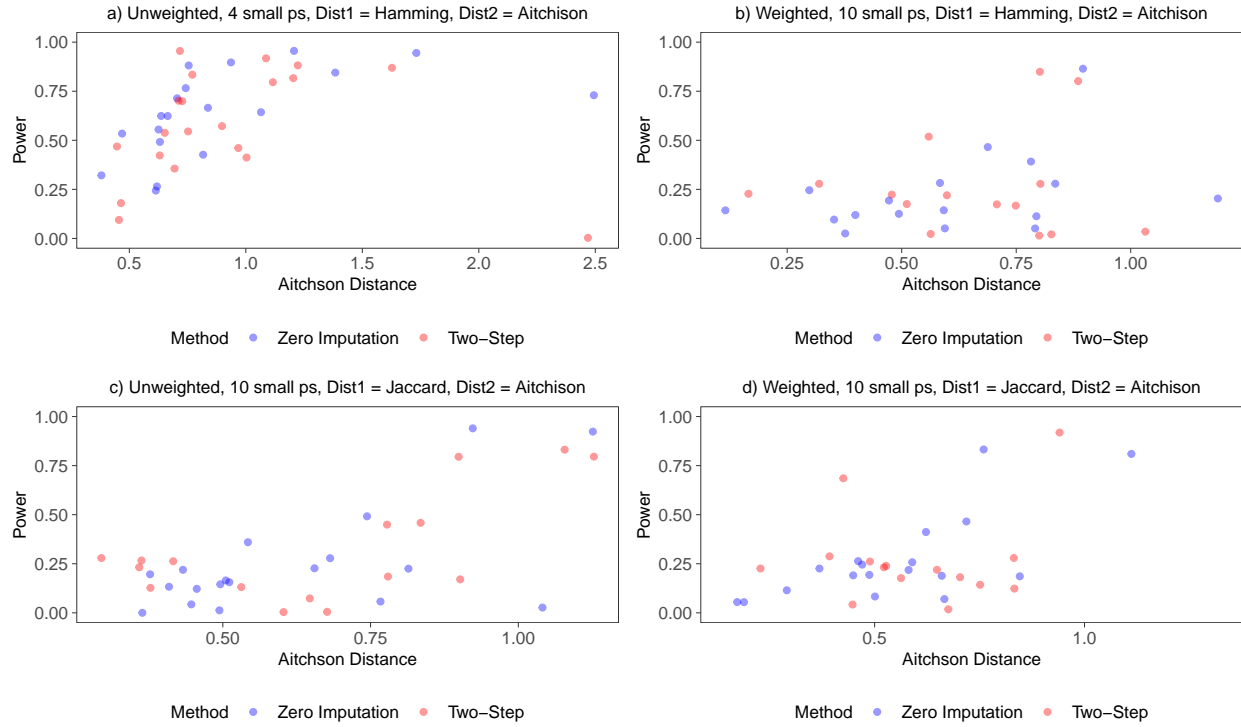

Figure 4: Case 2: Small difference in all (20) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.5 Case 3: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 4 are Rare.
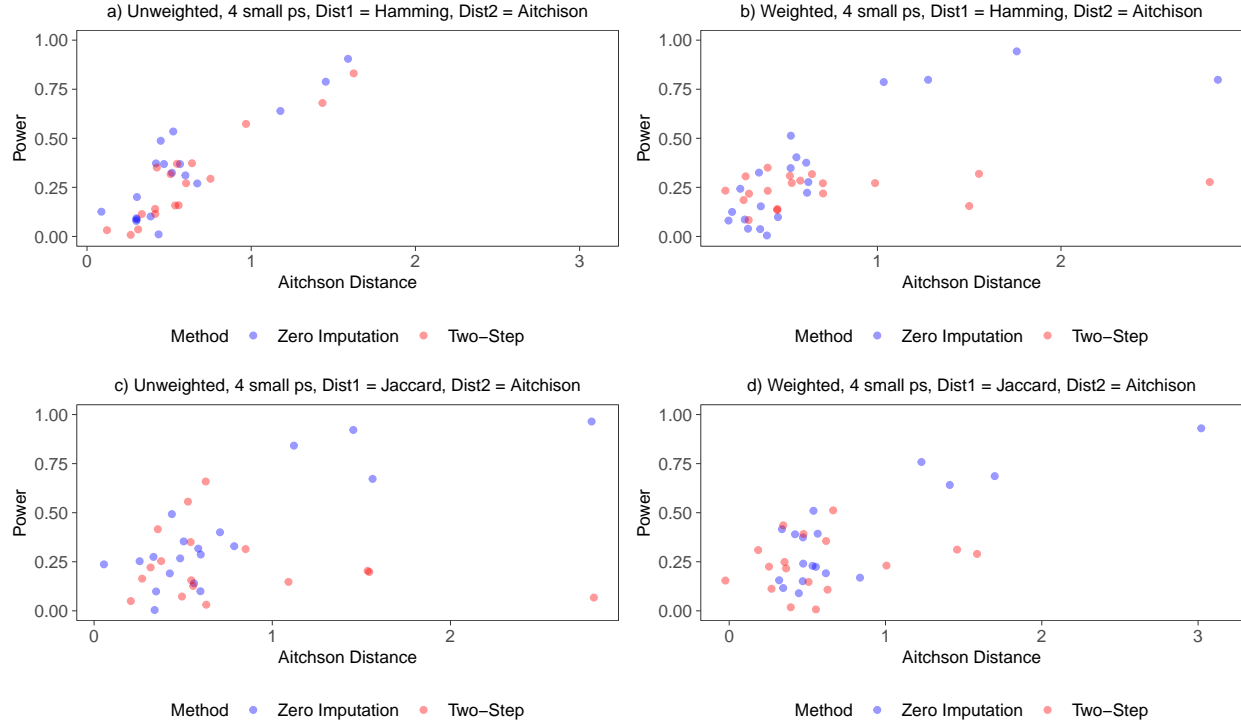
Figure 5: Case 3: Small difference in some (10) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.6 Case 3: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 10 are Rare.
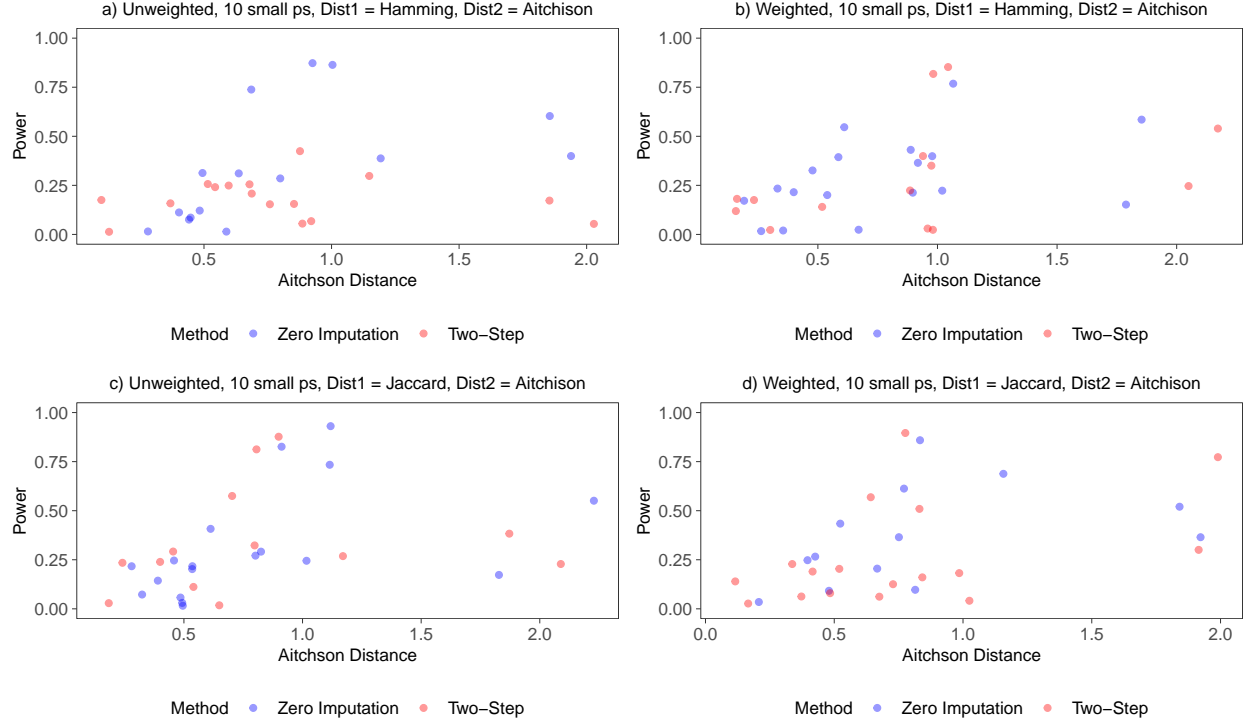

Figure 6: Case 3: Small difference in some (10) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.7 Case 4: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 4 are Rare.
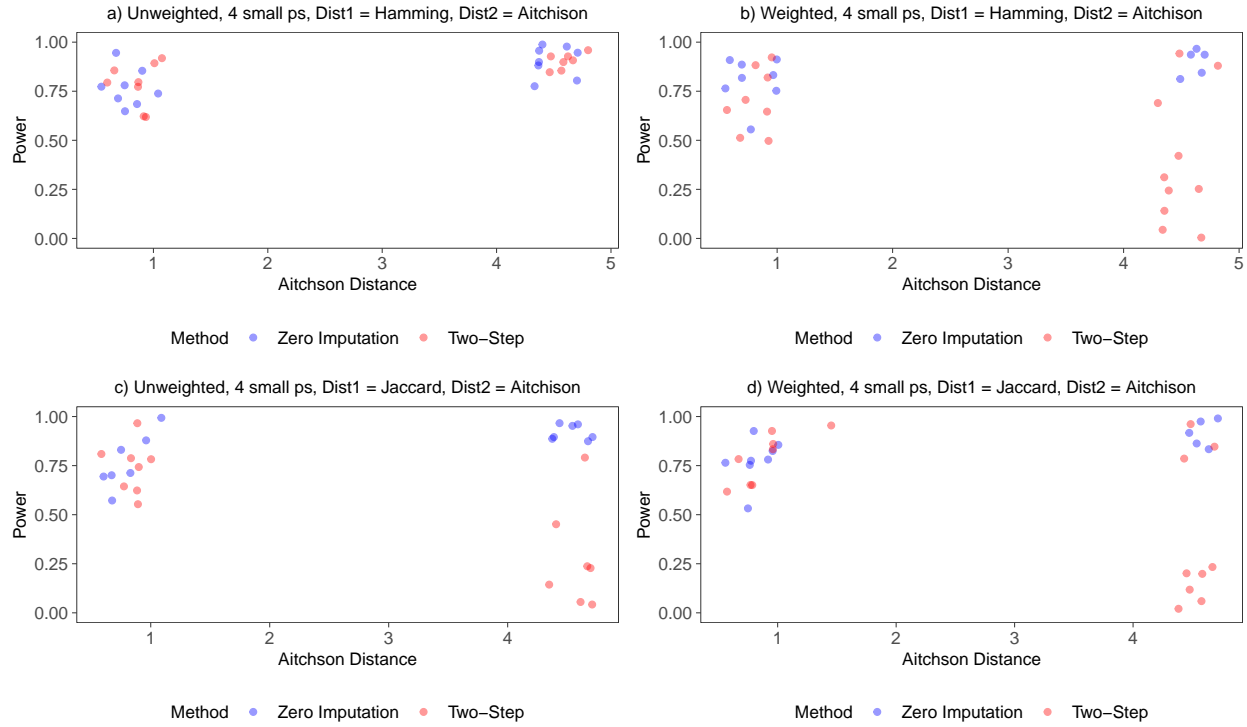

Figure 7: Case 4: Large difference in a few (5) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.8 Case 4: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 10 are Rare.
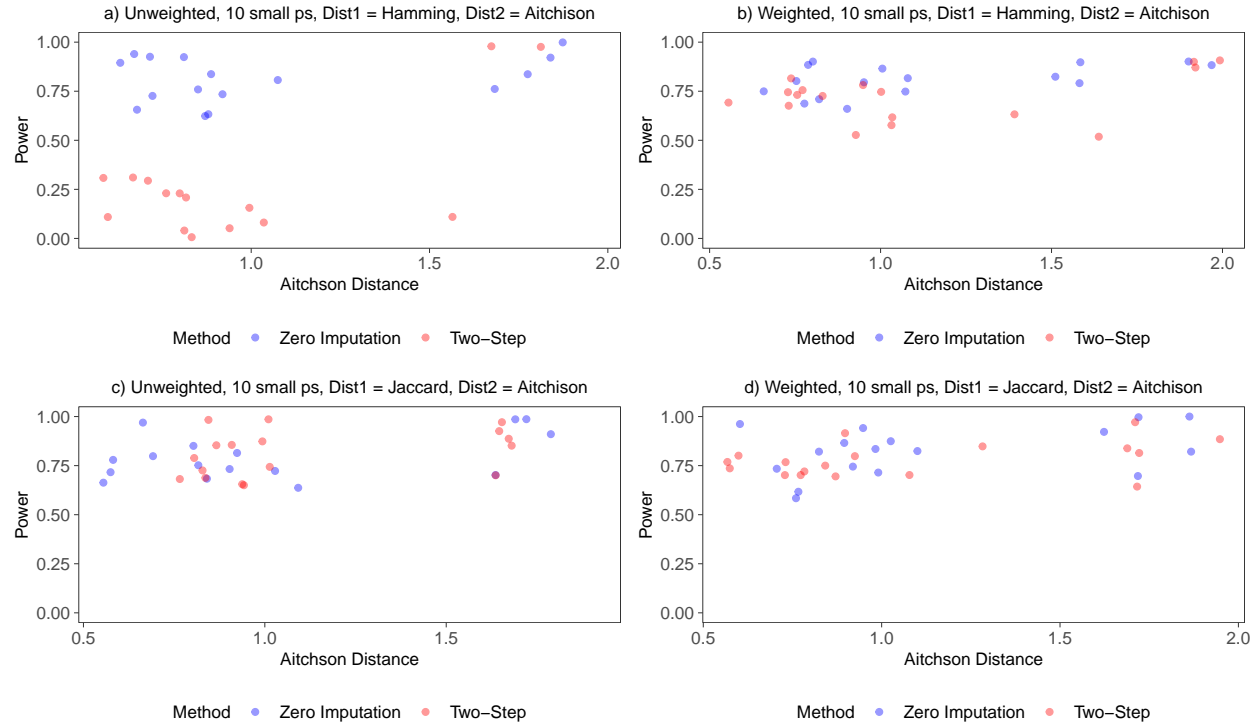

Figure 8: Case 4: Large difference in a few (5) cell types - Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.9   Cases 2, 3 and 4 Combined: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 4 are Rare.
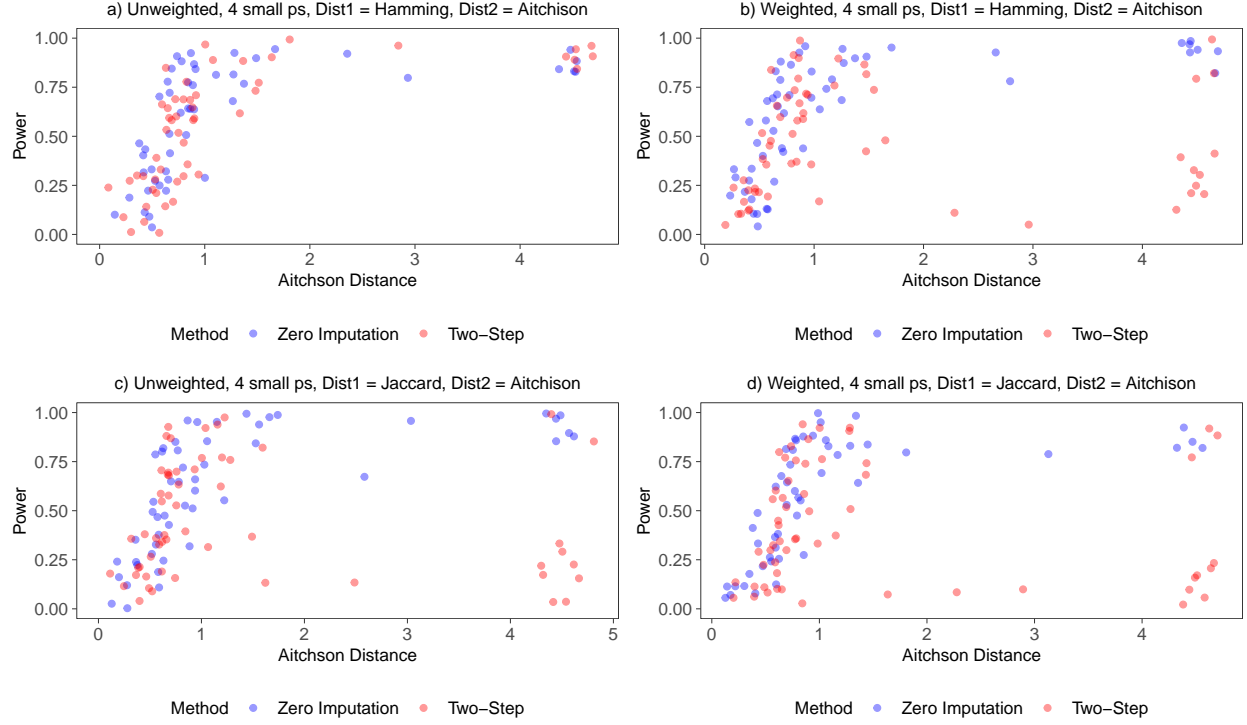

Figure 9: Cases 2, 3, and 4 Combined: Power Comparison for Zero Imputation and Two-Step Kernel Methods.

0.10 Cases 2, 3 and 4 Combined: Side by Side Comparison of Two-Step Kernel Method (Weighted and Unweighted) vs Zero Imputation Method with 20 Cell Types where 10 are Rare.
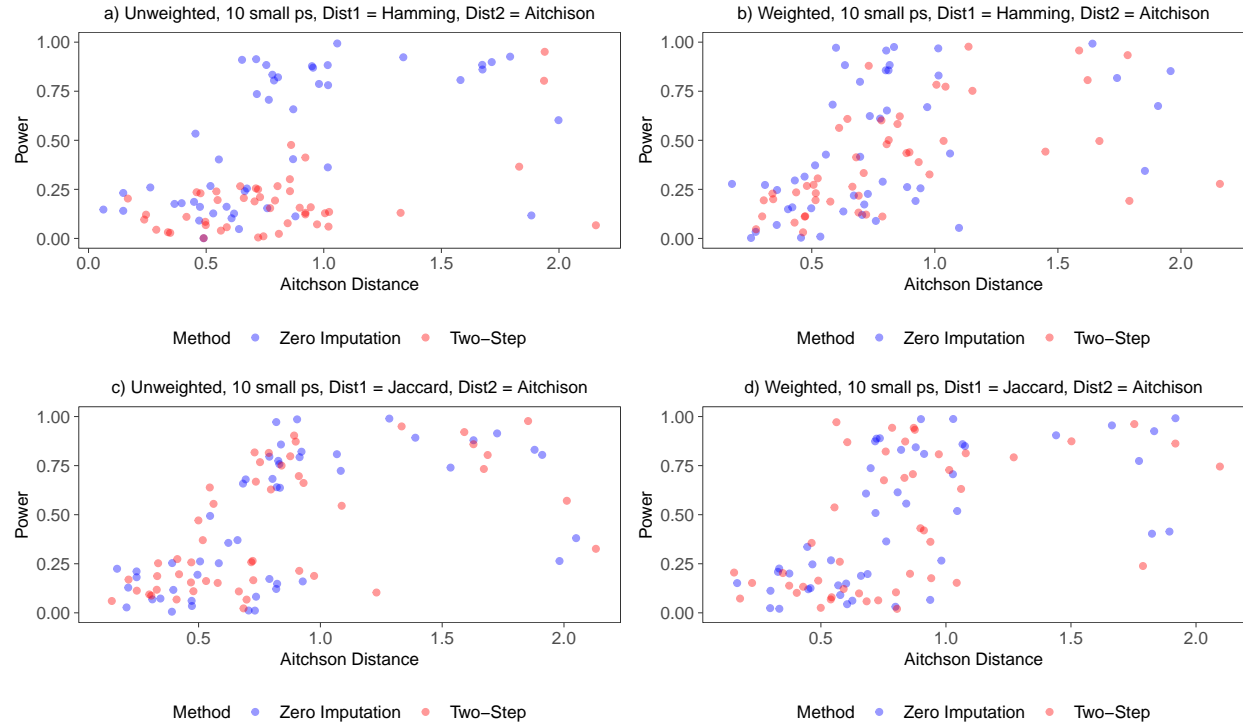

Figure 10: Cases 2, 3, and 4 Combined: Power Comparison for Zero Imputation and Two-Step Kernel Methods.