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24.963 Linguistic Phonetics
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subject	word	F1 Steady	F2 steady	F1 offglide	F2 offglide	pair	voicing
ak	bad	747	2024	482	1915	bad	voiced
ak	bad	718	1946	469	1851	bad	voiced
ak	bade	411	2649	384	2345	bade	voiced
ak	bade	438	2654	346	2379	bade	voiced
ak	bait	417	2569	344	2705	bade	voiceless
ak	bait	436	2623	345	2603	bade	voiceless
ak	bat	816	2019	708	2004	bad	voiceless
ak	bat	786	1954	819	1982	bad	voiceless
ak	bead	352	2858	314	2570	bead	voiced
ak	bead	304	2954	309	2518	bead	voiced
ak	beat	381	3083	314	2748	bead	voiceless
ak	beat	375	2964	289	2791	bead	voiceless
ak	bed	566	2113	405	2049	bed	voiced
ak	bed	567	2144	414	2064	bed	voiced
ak	bet	725	2071	730	2013	bed	voiceless
ak	bet	607	1986	545	2033	bed	voiceless
ak	bid	426	2210	371	2151	bid	voiced
ak	bid	454	2343	365	2280	bid	voiced
ak	bide	744	1749	489	2269	bide	voiced
ak	bide	740	1736	357	2283	bide	voiced
ak	bit	459	2282	414	2227	bid	voiceless
ak	bit	491	2247	395	2232	bid	voiceless
ak	bite	565	2081	342	2556	bide	voiceless
ak	bite	626	1988	330	2579	bide	voiceless
ak	boat	537	1488	422	1435	bode	voiceless
ak	boat	518	1368	494	1240	bode	voiceless
ak	bode	412	1156	389	1597	bode	voiced
ak	bode	444	1295	315	1490	bode	voiced
ak	booed	387	1326	327	1775	booed	voiced
ak	booed	319	1491	328	1736	booed	voiced
ak	boot	423	1297	403	1607	booed	voiceless
ak	boot	384	1392	321	1440	booed	voiceless
ak	bout	758	1668	465	1425	bowed	voiceless
ak	bout	671	1654	396	1194	bowed	voiceless

ak	bowed	750	1579	469	1562	bowed	voiced
ak	bowed	727	1670	431	1666	bowed	voiced
EM	bad	1014	1928	805	2089	bad	voiced
EM	bade	534	2387	341	2527	bade	voiced
EM	bait	384	2743	365	2675	bade	voiceless
EM	bat	1035	1904	947	1838	bad	voiceless
EM	bead	349	2832	354	2888	bead	voiced
EM	beat	361	2928	344	2830	bead	voiceless
EM	bed	722	2167	462	2126	bed	voiced
EM	bet	898	2096	839	2061	bed	voiceless
EM	bid	502	2424	395	2310	bid	voiced
EM	bide	897	1636	433	2409	bide	voiced
EM	bit	596	2319	593	2230	bid	voiceless
EM	bite	829	1621	381	2803	bide	voiceless
EM	boat	623	1374	447	1149	bode	voiceless
EM	bode	553	1191	388	1600	bode	voiced
EM	booed	379	1270	377	1508	booed	voiced
EM	boot	414	1062	372	1404	booed	voiceless
EM	bout	897	1630	478	1245	bowed	voiceless
EM	bowed	617	1345	375	1650	bowed	voiced
fh	bad	647	1718	520	1710	bad	voiced
fh	bad	734	1646	472	1719	bad	voiced
fh	bade	412	2295	301	2227	bade	voiced
fh	bade	408	2308	306	2337	bade	voiced
fh	bait	364	2373	268	2433	bade	voiceless
fh	bait	351	2468	283	2516	bade	voiceless
fh	bat	832	1600	526	1777	bad	voiceless
fh	bat	766	1621	498	1553	bad	voiceless
fh	bead	282	2689	212	2465	bead	voiced
fh	bead	307	2627	228	2404	bead	voiced
fh	beat	287	2645	240	2541	bead	voiceless
fh	beat	299	2639	278	2474	bead	voiceless
fh	bed	575	1941	414	1865	bed	voiced
fh	bed	597	2007	448	1927	bed	voiced

fh	bet	637	1889	493	1867	bed	voiceless
fh	bet	634	1912	474	1831	bed	voiceless
fh	bid	410	2169	355	2019	bid	voiced
fh	bid	407	2083	359	1997	bid	voiced
fh	bide	657	1794	336	2057	bide	voiced
fh	bide	635	1605	362	2048	bide	voiced
fh	bit	426	2177	403	1994	bid	voiceless
fh	bit	419	2142	401	2070	bid	voiceless
fh	bite	492	2025	315	2287	bide	voiceless
fh	bite	532	1896	267	2361	bide	voiceless
fh	boat	445	1235	361	1477	bode	voiceless
fh	boat	389	1323	341	1513	bode	voiceless
fh	bode	389	1300	383	1608	bode	voiced
fh	bode	376	1158	338	1533	bode	voiced
fh	booed	315	1051	211	1809	booed	voiced
fh	booed	325	1111	218	2169	booed	voiced
fh	boot	331	1151	293	1471	booed	voiceless
fh	boot	327	1198	292	1650	booed	voiceless
fh	bout	482	1289	348	1254	bowed	voiceless
fh	bout	494	1295	320	1365	bowed	voiceless
fh	bowed	440	1224	414	1534	bowed	voiced
fh	bowed	377	1202	361	1618	bowed	voiced
hk	bad	923	1924	539	1816	bad	voiced
hk	bad	912	1853	524	1803	bad	voiced
hk	bade	444	2591	332	2119	bade	voiced
hk	bade	429	2603	335	2203	bade	voiced
hk	bait	433	2534	358	2511	bade	voiceless
hk	bait	407	2686	368	2639	bade	voiceless
hk	bat	1001	1929	805	1883	bad	voiceless
hk	bat	1029	1821	837	1869	bad	voiceless
hk	bead	388	2627	341	2204	bead	voiced
hk	bead	381	2653	339	2126	bead	voiced
hk	beat	364	2690	343	2531	bead	voiceless
hk	beat	380	2612	309	2425	bead	voiceless

hk	bed	725	2051	494	1937	bed	voiced
hk	bed	735	2044	457	2065	bed	voiced
hk	bet	804	1890	723	2025	bed	voiceless
hk	bet	864	1933	679	2019	bed	voiceless
hk	bid	500	2240	393	2097	bid	voiced
hk	bid	482	2260	382	2055	bid	voiced
hk	bide	948	1455	385	2113	bide	voiced
hk	bide	937	1419	342	1964	bide	voiced
hk	bit	586	2208	482	2082	bid	voiceless
hk	bit	568	2295	498	2211	bid	voiceless
hk	bite	745	1506	361	2365	bide	voiceless
hk	bite	736	1624	358	2513	bide	voiceless
hk	boat	525	1274	404	1607	bode	voiceless
hk	boat	572	1431	353	1828	bode	voiceless
hk	bode	520	1285	345	1825	bode	voiced
hk	bode	544	1343	296	1814	bode	voiced
hk	booed	400	1567	252	1899	booed	voiced
hk	booed	395	1601	336	1931	booed	voiced
hk	boot	411	1666	349	1881	booed	voiceless
hk	boot	409	1656	355	1655	booed	voiceless
hk	bout	901	1645	454	1583	bowed	voiceless
hk	bout	881	1671	423	1323	bowed	voiceless
hk	bowed	990	1618	417	1667	bowed	voiced
hk	bowed	990	1698	405	1627	bowed	voiced
jm	bad	912	1868	637	2002	bad	voiced
jm	bad	971	1758	592	2022	bad	voiced
jm	bade	453	2615	410	2386	bade	voiced
jm	bade	447	2563	454	2310	bade	voiced
jm	bait	462	2653	460	2745	bade	voiceless
jm	bait	455	2581	577	2555	bade	voiceless
jm	bat	1013	1828	928	2003	bad	voiceless
jm	bat	990	1874	944	1915	bad	voiceless
jm	bead	393	2765	387	2362	bead	voiced
jm	bead	401	2683	372	2305	bead	voiced
jm	beat	391	2802	404	2841	bead	voiceless

jm	beat	390	2860	379	2617	bead	voiceless
jm	bed	688	2240	468	2108	bed	voiced
jm	bed	673	2155	437	2146	bed	voiced
jm	bet	886	2049	741	2174	bed	voiceless
jm	bet	747	2131	650	2193	bed	voiceless
jm	bid	487	2371	425	2258	bid	voiced
jm	bid	505	2277	440	2152	bid	voiced
jm	bide	913	1468	437	2329	bide	voiced
jm	bide	882	1730	433	2276	bide	voiced
jm	bit	519	2323	495	2313	bid	voiceless
jm	bit	504	2321	483	2324	bid	voiceless
jm	bite	617	2263	419	2668	bide	voiceless
jm	bite	629	2251	471	2587	bide	voiceless
jm	boat	558	1436	504	1537	bode	voiceless
jm	boat	507	1347	420	1711	bode	voiceless
jm	bode	513	1391	383	1794	bode	voiced
jm	bode	611	1435	466	1673	bode	voiced
jm	booed	443	1646	335	2032	booed	voiced
jm	booed	423	1616	400	1946	booed	voiced
jm	boot	480	1630	469	1791	booed	voiceless
jm	boot	450	1530	442	1697	booed	voiceless
jm	bout	874	1844	454	1124	bowed	voiceless
jm	bout	855	1681	441	1087	bowed	voiceless
jm	bowed	877	1683	504	1520	bowed	voiced
jm	bowed	852	1637	489	1494	bowed	voiced