



¹ Many speakers realize the high (a.k.a. *close*) vowels as slight diphthongs [ij uw].

² The near-high (a.k.a. *near-close*) vowels are somewhat centralized and typically shorter in comparison to their high counterparts.

³ The upper mid (a.k.a. *close-mid*) vowels are usually realized as slight diphthongs [eɪ oʊ], but they can vary from monophthongs [e o] to very strong diphthongs [ej ow], depending on the speaker's dialect, surrounding sounds, rate of speech, etc.

⁴ In many dialects (especially in the Western and Southern US), the back round vowels are often pronounced with less lip rounding than other round vowels and/or a bit fronter than other back vowels. This is most especially true for [ʊ].

⁵ In many dialects (especially in the Western US), the lower mid (a.k.a. *open-mid*) back vowel is only found before [r] as in [fɔrs] *force*, or in the diphthong [ɔɪ]. Many other dialects (especially in the Northeastern US) contrast [ɔ] and low back [ɑ] in pairs like [kɔʔt] *caught* versus [kɑʔt] *cot*.

⁶ The unstressed mid central vowels [ə ɚ] are also called *reduced* vowels because they are much shorter and weaker than the other (unreduced) vowels.

⁷ Many vowels are often reduced to [ə] or merge with [r] to form [ɚ] when unstressed: [mædʒəɹəri], [meɪdʒɚ] (*majority, major*); [vælɪrəri], [væləd] (*validity, valid*).

⁸ The reduced vowel *schwa* [ə] varies quite a lot in pronunciation, sometimes higher [ɪ] and sometimes also fronter [ɪ], depending on the surrounding consonants, but especially next to consonants made with the front of the tongue: [lɪtɹiːn] or [lətɹiːn] are both possible pronunciations for *latrine*; the past tense marker *-ed* often sounds like [ɪd] instead of [əd], as in *landed, petted*, etc.

⁹ The ‘er’ vowels are called *rhoticized* or *r-colored* vowels (‘rhotic’ means ‘like the sound of r’, from the Greek letter rho ρ). They are the alternate (often preferred) ways to write syllabic [ɹ].

¹⁰ When the end of the syllable contains only voiced consonants, any stressed vowel is usually lengthened: [luːz] *lose* versus [lus] *loose*, [wɛːtɪd] *weld* versus [wɛtɪʔt] *welt*.

¹¹ When a vowel is followed by a nasal stop in the same syllable, the vowel is (at least partially) nasalized (and if the conditions in Note 10 are met, it will also be lengthened): [bɛnʔt] *bent*, [bɛːmɪd] *bend*, [lūːm] *loom*, [lūːm] *loon*, etc.