

Graduation Rates for Band and Choir Students in BSD

Four-Year Cohort Graduation Rates for students enrolled in 2016-17

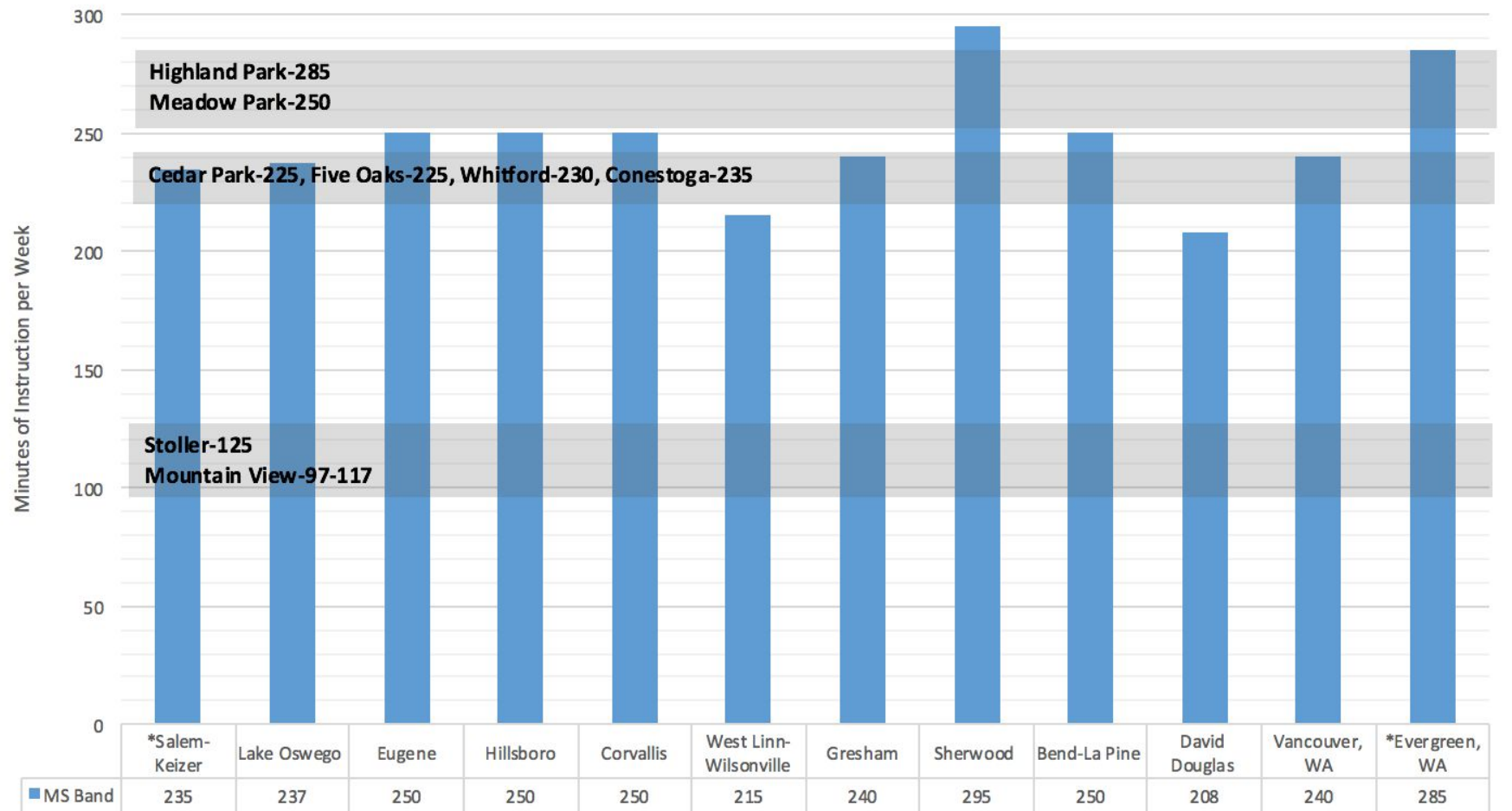
Group	Graduation Rate
No music	87.8%
Band	95.0%
Choir	91.8%

“9th Grade On Track to Graduate”

9 th graders in	Students with 6 or more credits at the end of grade 9
Band/orchestra	97%
Choir	87%
Not in band, choir, or orchestra	85%

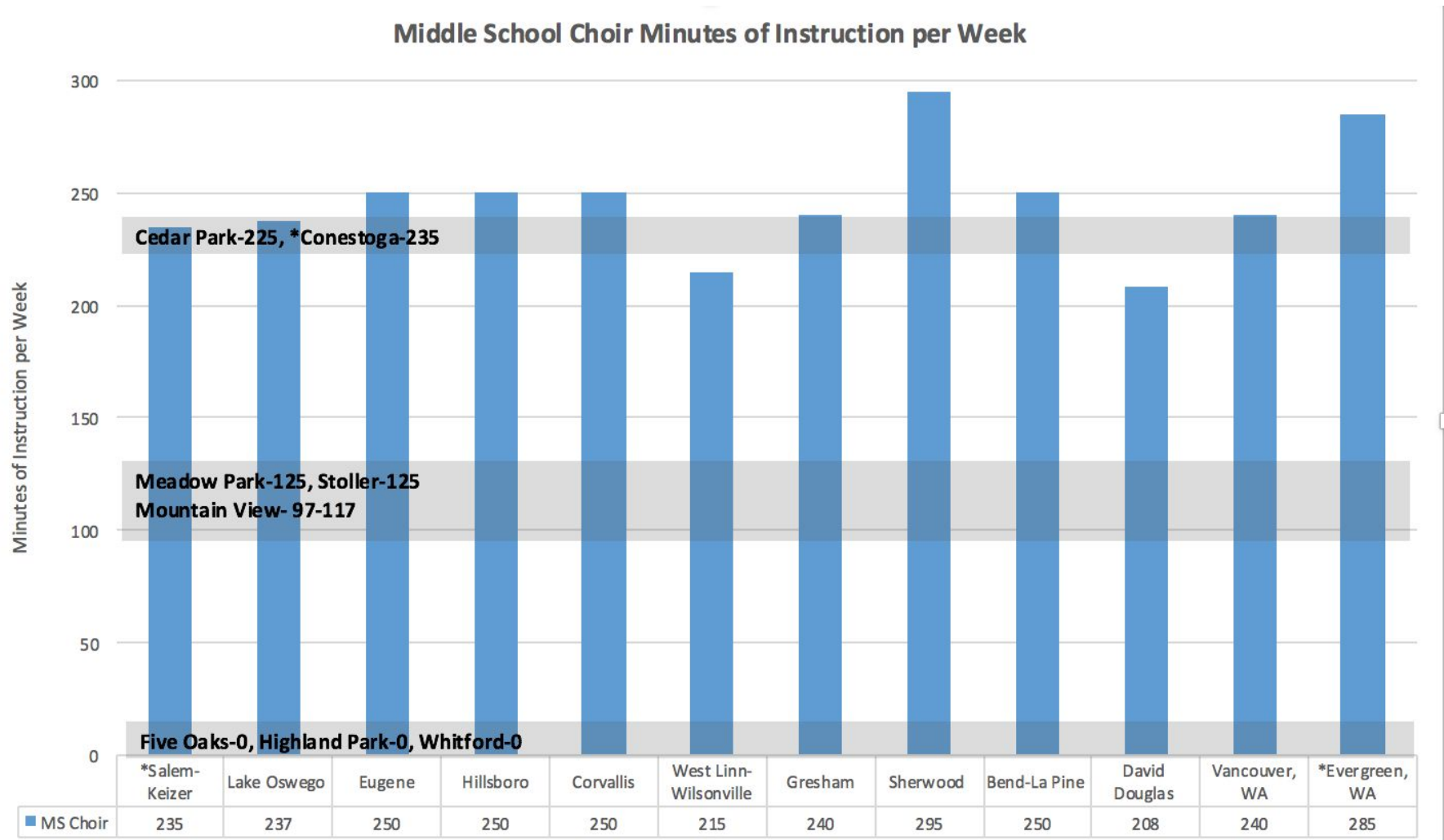
- BSD CTE students graduated at a rate of 92.1% compared to a District-wide graduation rate of 85.9%.
- BSD Band students graduated at a rate of 95.0%
- BSD Choir students graduated at a rate of 91.8%

Middle School Band Minutes of Instruction per Week



**225 minutes a week is the Music Task Force recommendation*

**National Association for Music Education (NAfME) recommends instruction in ensembles is provided to students in durations commensurate with other core academic subject areas*



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MS Music APU and Student Participation 17-18	HS Music APU 2017-18
Cedar Park: *Band 1.0 (216), *Choir 1.0 (207) Conestoga: *Band 1.0 (153), *Choir 1.0 (274) Five Oaks: *Band 1.0 (150), Choir 0.0 Highland Park: *Band 1.0 (169), Choir 0.0 Meadow Park: *Band 1.0 (235), Choir 0.5 (124) Mountain View: Band 0.5 (190), Choir 0.5 (156) Stoller: Band 0.5 (226), Choir 0.5 (283) Whitford: *Band 1.0 (186), Choir 0.0 <i>*Performing grade 2.5 - 3 music by 8th grade</i>	Aloha: Band 1.0, *Choir 1.0 Beaverton: *Band 1.0, Choir 1.0 Southridge: **Band 1.0, Choir 0.8 Mountainside: *Band 1.0, Choir 0.2 Sunset: Band 0.5, *Choir 1.0 Westview: *Band 1.0, *Choir 1.0 <i>Southridge & Mountainside share a choir teacher</i> <i>* Qualified for OSAA State Competition</i> <i>**1st Place at OSAA Metro League Competition</i>

School	Band min/week	Choir min/week
Cedar Park	225	225
Conestoga	235	235
Five Oaks	225	0
Highland Park	285	0
Meadow Park	250	125
Mountain View	117 (97 6th)	117 (97 6th)
Stoller	125	125
Whitford	230	0

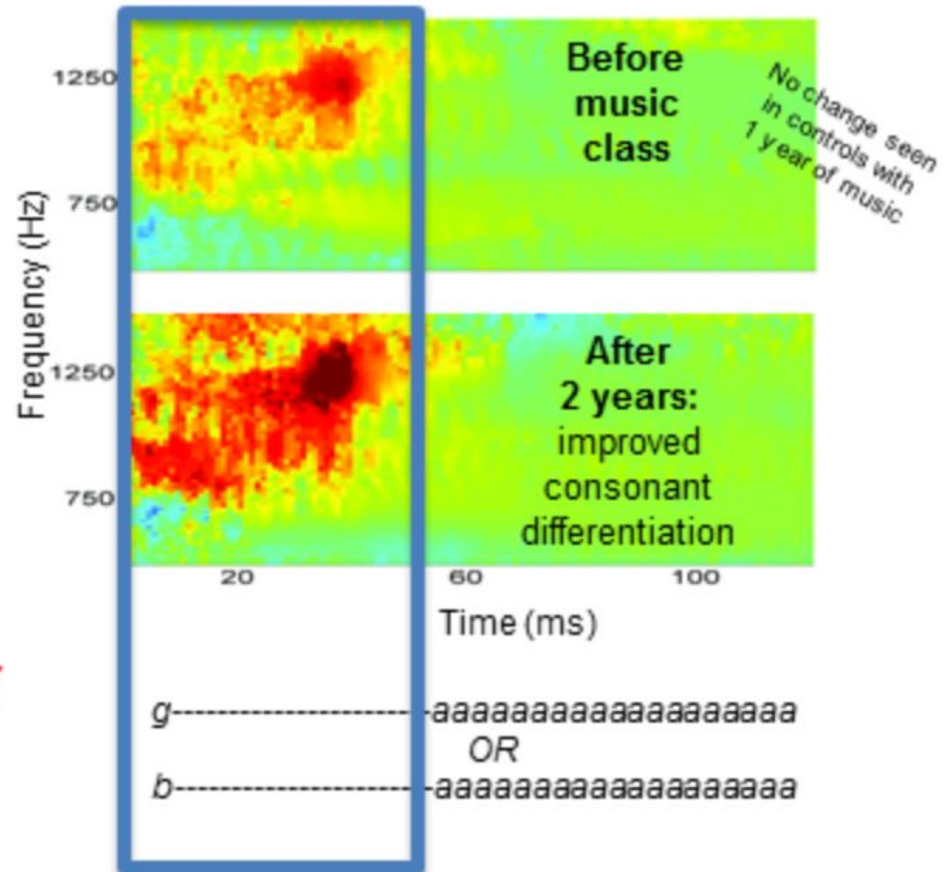
**225 minutes a week is the Music Task Force recommendation*

There have been a lot of findings in the last 10-15 years around how the brain processes sound and how playing/studying music improves the neural speech processing that is important for learning to read, especially in the early years of life when the brain is developing. **Nina Kraus** of the [Auditory Neuroscience Laboratory](#) is a leader in this research. Below are a few graphics that capture some of her major findings.

Playing music improves neural speech processing that is important for reading



*****Darker red indicates greater distinction between neural responses to consonants.***



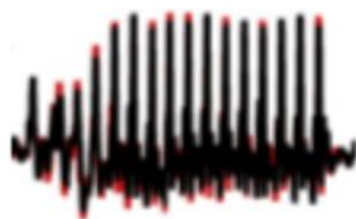
Musicians' stronger speech-sound processing builds up across the life span



Musicians
Non-musicians

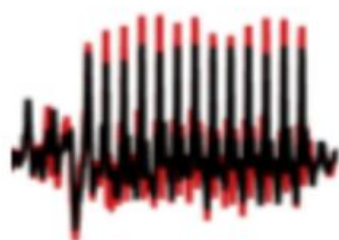
Neural responses to speech

Preschoolers



Strait et al.(2013) *Dev Cog Neurosci; Cerebral Cortex*

School-Age Children



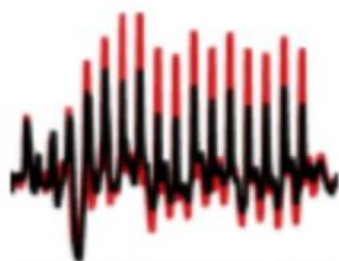
Strait et al. (2009) *Brain & Language*

Younger Adults



Parbery-Clark et al. (2009) *J Neurosci*

Older Adults



Parbery-Clark et al. (2012) *Front Aging Neurosci*

Reviewed in: Kraus and Chandrasekaran (2010) *Nat Neurosci*; Strait and Kraus (2013) *Hear Res*

Musicians have better **auditory attention and memory** across the lifespan



Auditory Cognitive Skills



Reviewed in: Kraus & Chandrasekaran (2010) *Nat Rev Neurosci*; Kraus et al. (2012) *Ann NY Acad Sci*; Strait & Kraus (2013) *Hear Res*
Strait et al. (2012) *Brain Lang*; Parbery-Clark et al. (2011) *PLoS ONE*; Strait et al. (2010) *Hear Res*;

Rhythm and sound patterns are important for communication



Rhythm skills track with reading skills, and with pre-reading skills in toddlers



Expert drummers are better at perceiving speech in noise!



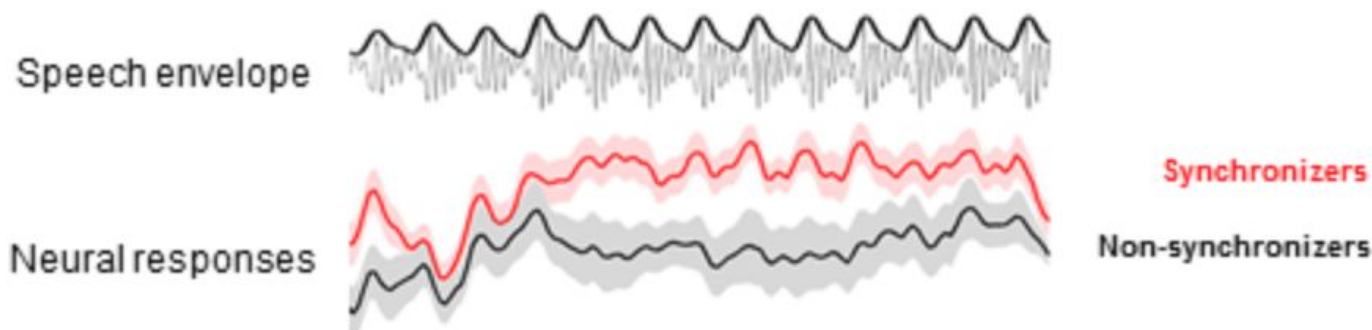
See our
RHYTHM SLIDESHOW!

Slater and Kraus (2015) *Cognitive Processing*
Strait et al. (2011) *Behav Brain Funct*;
Parbery-Clark et al. (2011) *Neuropsychologia*
Woodruff Carr et al. (2014) *PNAS*

Rhythm abilities are linked to **early reading skills**

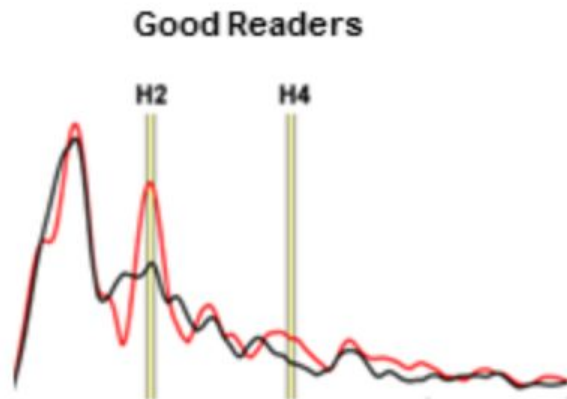


Preschoolers who can **synchronize to a beat** have stronger **reading readiness** and more precise **neural encoding of speech envelope**



See Reading slideshow!

Sound patterns help identify speech elements that are important for **learning to read**



Random



Patterned



Random
Patterned

Good readers get greater benefit from patterns when encoding speech sounds

Chandrasekaran et al. (2009) *Neuron*

Here is a link to Nina giving a presentation on her research if you are interested in hearing more. It's really fascinating.

https://www.youtube.com/watch?v=o64_SehTi6M&list=PLpfBUN64Awyr7jEUyFHoAeC-d4ODvCve3&index=10