From Hero to Superhero:
Taking Successful Artists to Greater Heights

Metis Business Module Presentation

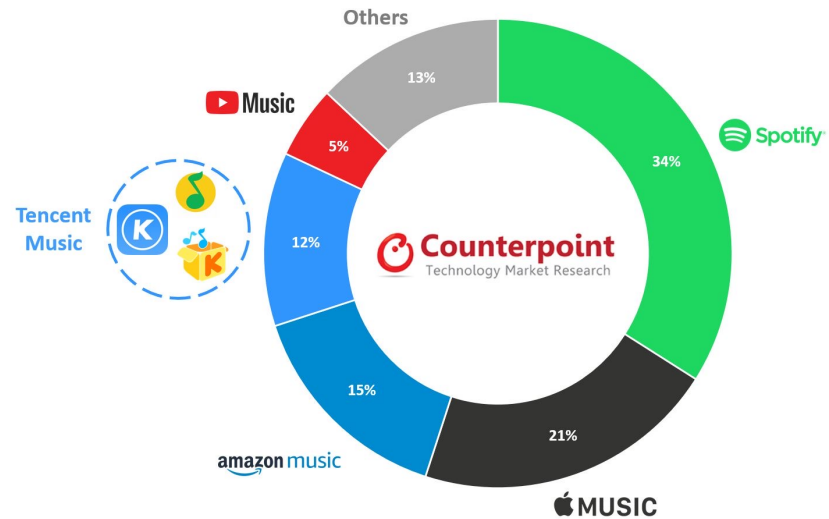**Andrei Levin • 7/23/21**

Our Mission

We provide data-driven insights to give **successful musical artists** the edge they need to get to the next level

Proof of Concept: Use Spotify Streaming Data

Why Spotify?

- Largest market share
- Transparent song popularity metrics

Global Music Streaming Paid Subscriptions by Brand Share (In %) – Q2 2020

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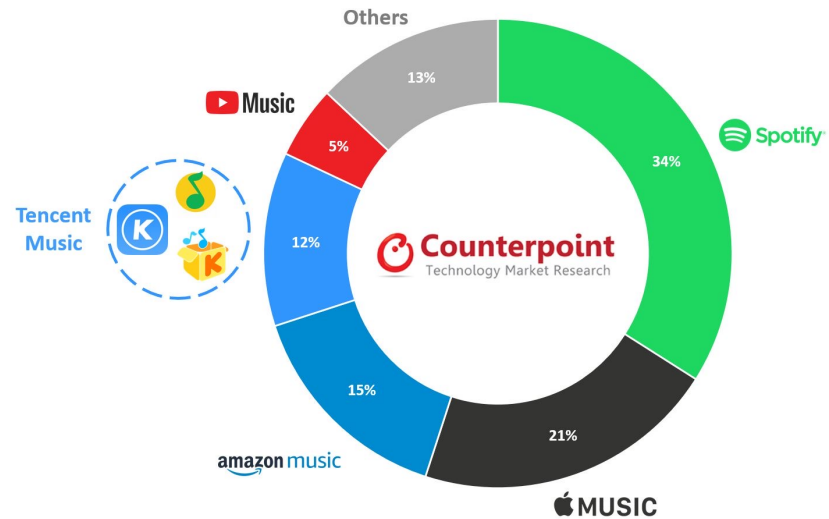

Data Collected

- Daily USA Top 200
- Years: 2017-2020

Aggregated: Four Years of Daily Data

	Title	Artist	Genre	Duration	BPM	Explicit	Key	Danceability	Energy	Positivity	Speechiness	Release Date	Peak Position	Days Top 200	Days Top 10
1	Title	Artist	Genre	Duration	BPM	Explicit	Key	Danceability	Energy	Positivity	Speechiness	Release Date	Peak Position	Days Top 200	Days Top 10
2	Feel Me	Tyga - Kanye W	Pop	3.333	87.692	Explicit	Minor	0.442	0.636	0.251	0.262	2017-01-01	78	7	0
3	Dont Leave	Snakehips - M(	Dance/Elect	3.578	122.381	Explicit	Major	0.657	0.703	0.338	0.0753	2017-01-06	51	88	0
4	Move Your Bod	Sia	Dance/Elect	4.201	127.962	Clean	Minor	0.664	0.883	0.381	0.0353	2017-01-06	177	1	0
5	Drinkin Too Mu	Sam Hunt	Country	3.858	139.144	Explicit	Major	0.447	0.38	0.155	0.0495	2017-01-06	91	6	0
6	Drugs	August Alsina	Pop	3.230	118.435	Explicit	Minor	0.411	0.327	0.144	0.0827	2017-01-06	199	1	0
7	On My Way	Tiësto - Bright :	House	3.062	123.972	Clean	Major	0.629	0.764	0.577	0.036	2017-01-13	164	1	0
8	Not Afraid Anyr	Halsey	Pop	3.780	131.973	Clean	Minor	0.548	0.731	0.477	0.0704	2017-01-13	70	6	0
9	On Hold	The xx	Dance/Elect	3.736	125.051	Clean	Major	0.723	0.669	0.35	0.0348	2017-01-13	129	6	0
10	Despacito	Luis Fonsi - Da	Latin	3.803	177.833	Clean	Major	0.66	0.786	0.846	0.17	2017-01-13	1	257	2
11	Dangerous	The xx	Dance/Elect	4.167	119.982	Clean	Major	0.774	0.709	0.565	0.0465	2017-01-13	109	2	0
12	I Dare You	The xx	Dance/Elect	3.888	126.001	Clean	Major	0.752	0.543	0.282	0.0398	2017-01-13	100	2	0
13	Selfish	PnB Rock	Rap	4.093	101.981	Explicit	Minor	0.638	0.6	0.0399	0.0438	2017-01-13	46	231	0
14	Issues	Julia Michaels	Pop	2.939	113.634	Clean	Major	0.683	0.427	0.426	0.0777	2017-01-13	11	164	0
15	Say Something	The xx	Dance/Elect	3.973	130.08	Clean	Minor	0.627	0.721	0.383	0.0304	2017-01-13	94	3	0
16	I Miss You	Grey - Bahari	Pop	3.205	102.01	Clean	Major	0.65	0.764	0.704	0.0939	2017-01-13	131	31	0
17	Lips	The xx	Dance/Elect	3.344	173.94	Clean	Major	0.523	0.591	0.195	0.0543	2017-01-13	168	1	0
18	A Violent Noise	The xx	Dance/Elect	3.791	119.345	Clean	Minor	0.549	0.423	0.144	0.0373	2017-01-13	174	1	0
19	Misunderstood	PnB Rock	Rap	4.149	141.903	Explicit	Major	0.724	0.452	0.139	0.0884	2017-01-13	140	7	0
20	Sex For Breakf	Life of Dillon	Pop	3.248	94.99	Explicit	Major	0.852	0.601	0.537	0.0299	2017-01-13	152	1	0
21	High For Hours	J. Cole	Hip Hop	4.188	95.518	Explicit	Major	0.87	0.446	0.684	0.424	2017-01-18	51	14	0
22	Weak	AJR	Rock	3.370	123.984	Clean	Major	0.672	0.642	0.656	0.0461	2017-01-20	140	32	0
23	El Amante	Nicky Jam	Latin	3.658	179.91	Clean	Major	0.683	0.691	0.732	0.0432	2017-01-20	183	9	0
24	Good Drank	2 Chainz - Guc	Hip Hop	3.754	130.074	Explicit	Minor	0.813	0.763	0.362	0.281	2017-01-20	196	2	0
25	Run Up	Major Lazer - F	Pop	3.386	108.005	Explicit	Minor	0.803	0.743	0.674	0.0681	2017-01-26	23	103	0
26	Culture	Migos - DJ Kha	Hip Hop	2.559	132.996	Explicit	Minor	0.825	0.7	0.317	0.243	2017-01-27	24	15	0
27	All Ass	Migos	Hip Hop	4.911	140.021	Explicit	Major	0.836	0.758	0.551	0.191	2017-01-27	65	9	0
28	Big On Big	Migos	Hip Hop	4.847	142.022	Explicit	Minor	0.723	0.768	0.526	0.0587	2017-01-27	59	7	0

5,314 unique songs

Aggregated: Four Years of Daily Data

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Success Metric: Peak Streaming Position Achieved

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Top 10% — ■ Superhero ■ Hero
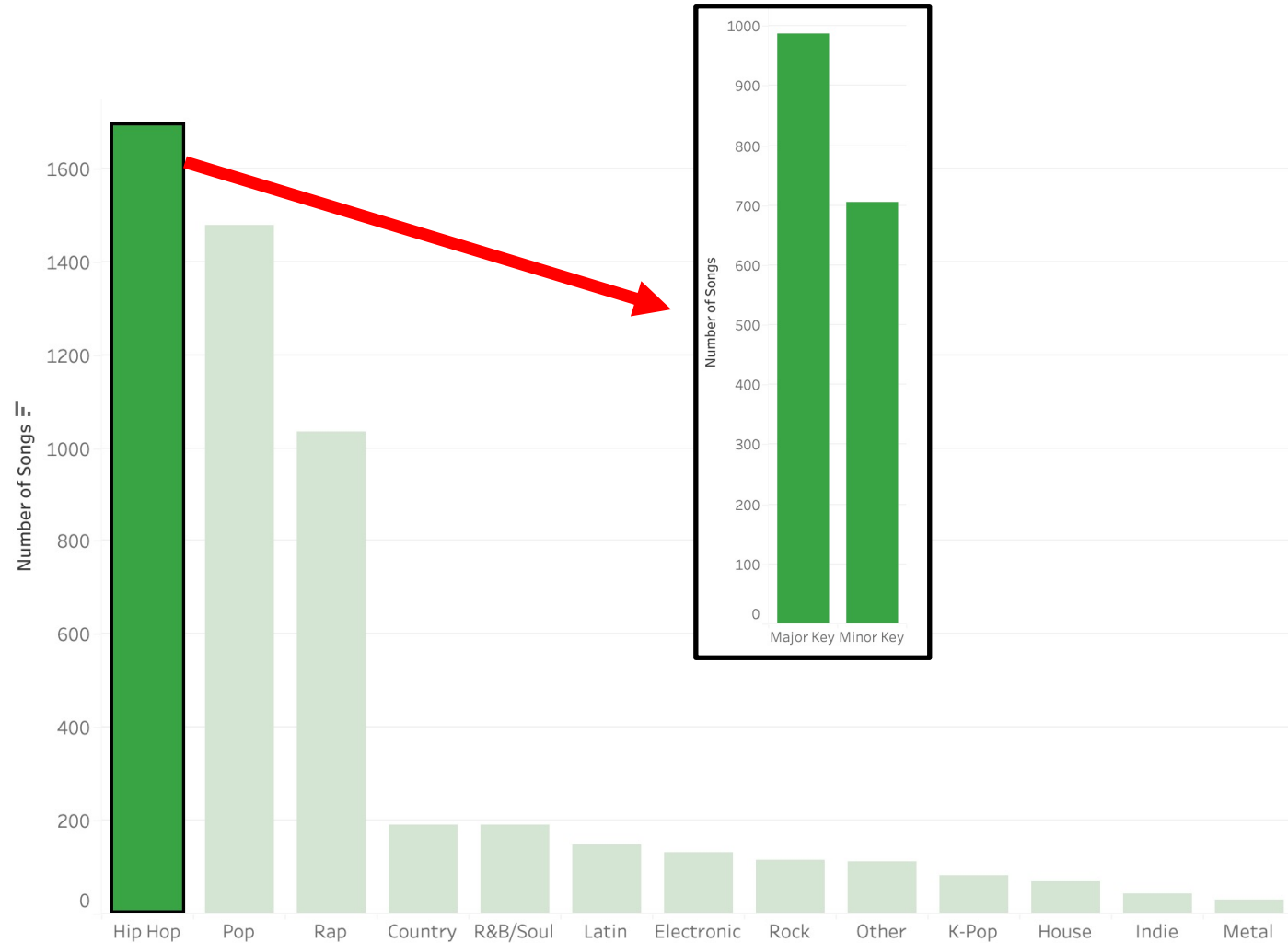
Legend:
- Hero
- Superhero
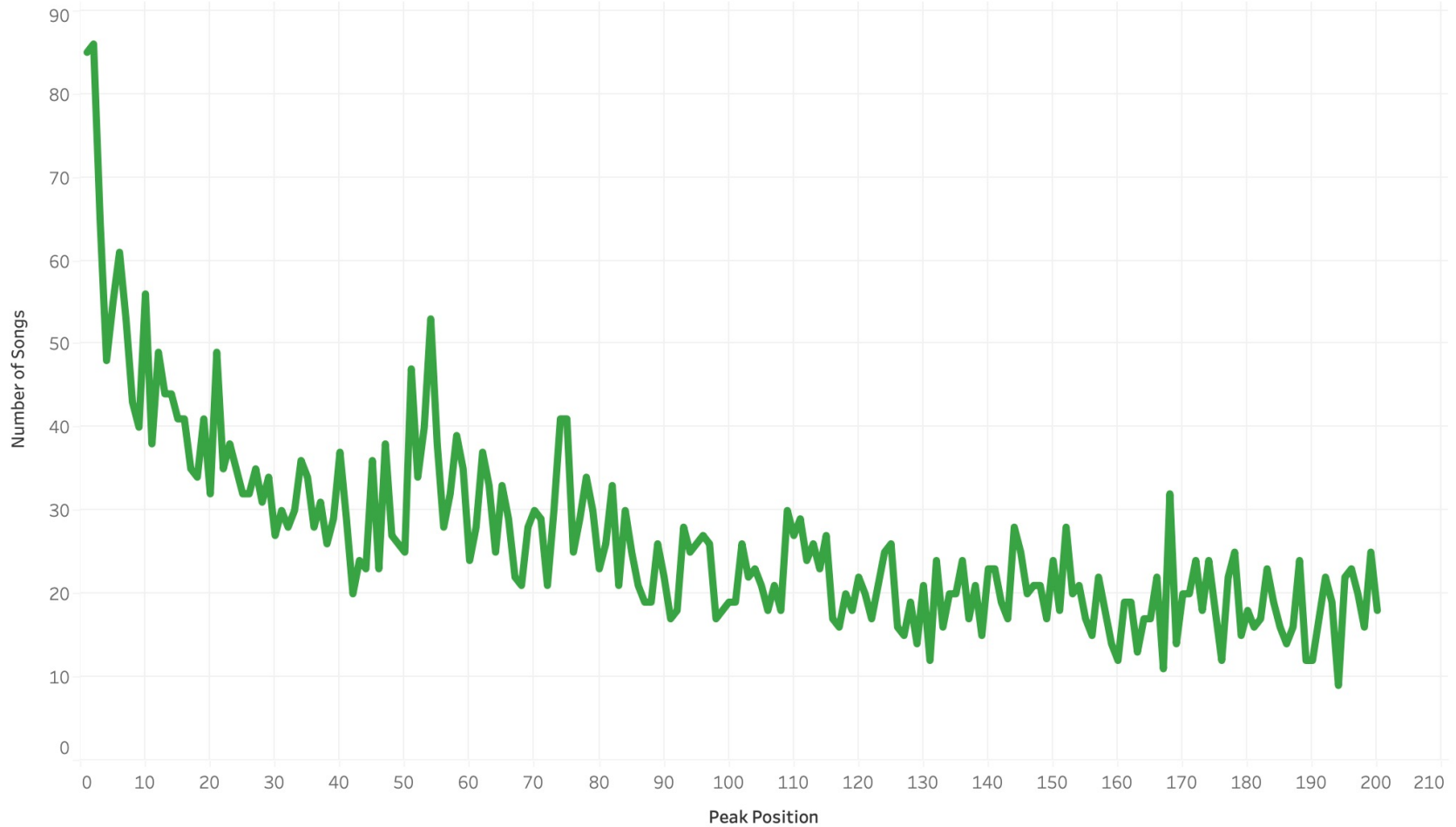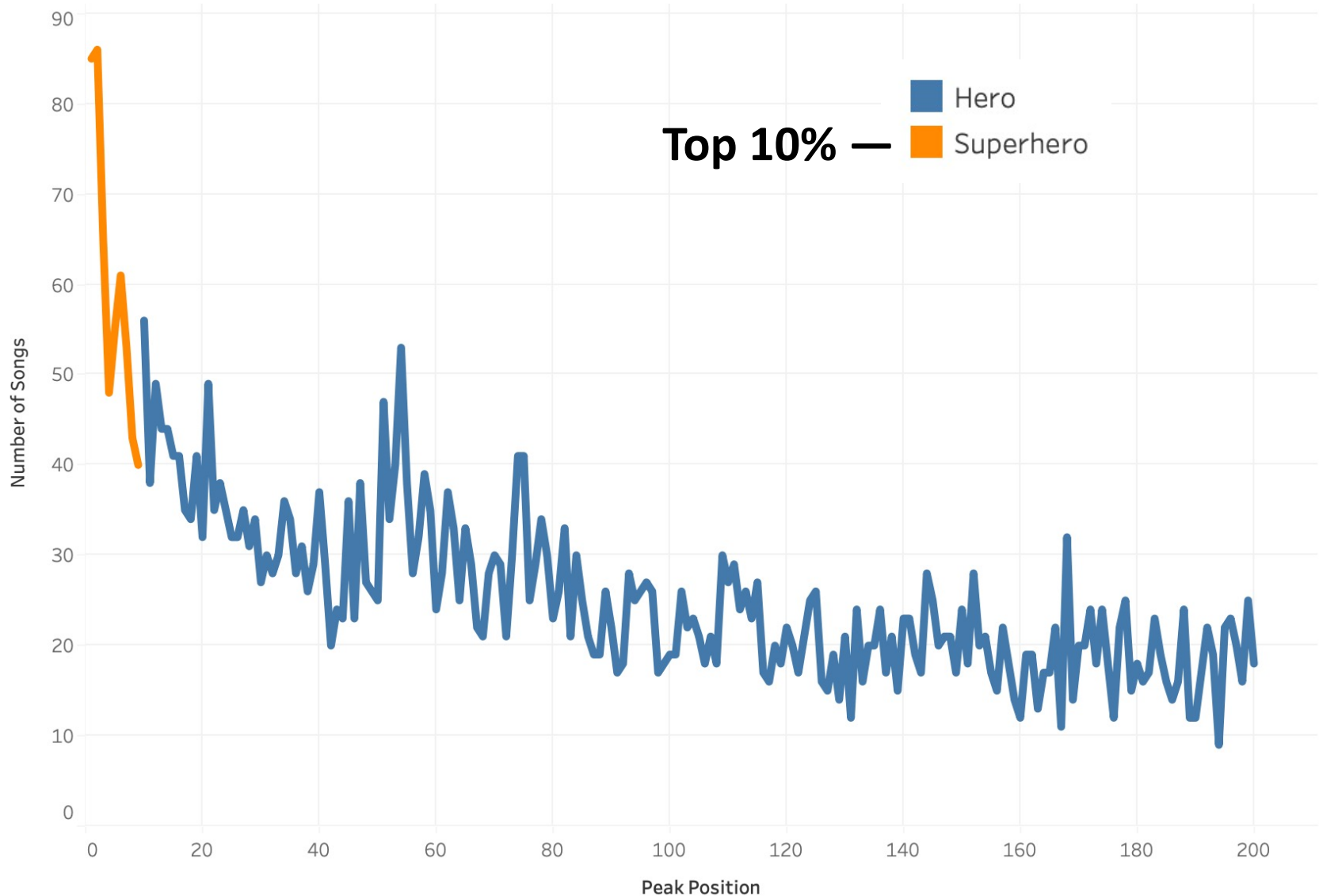
Breakdown by Genre
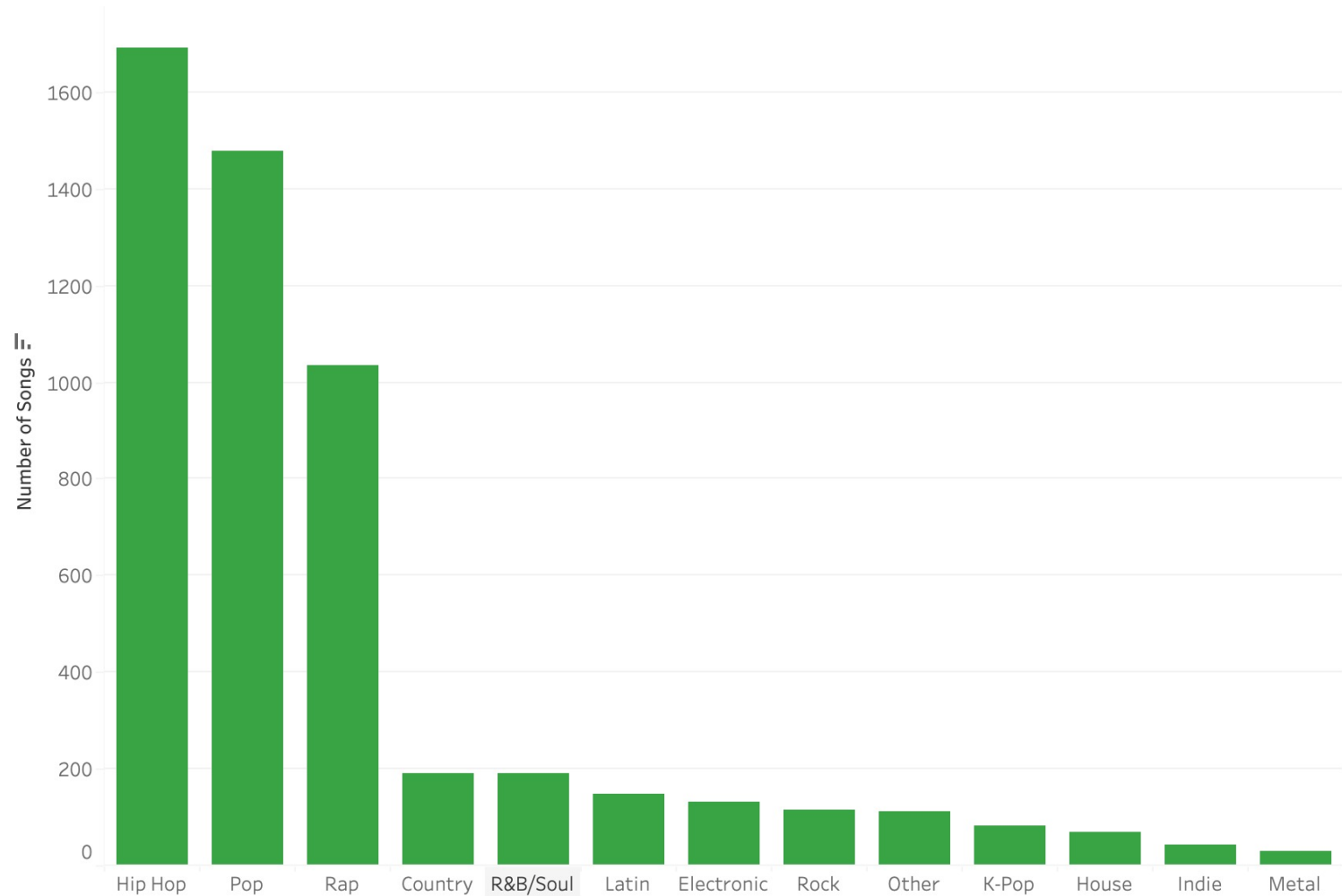
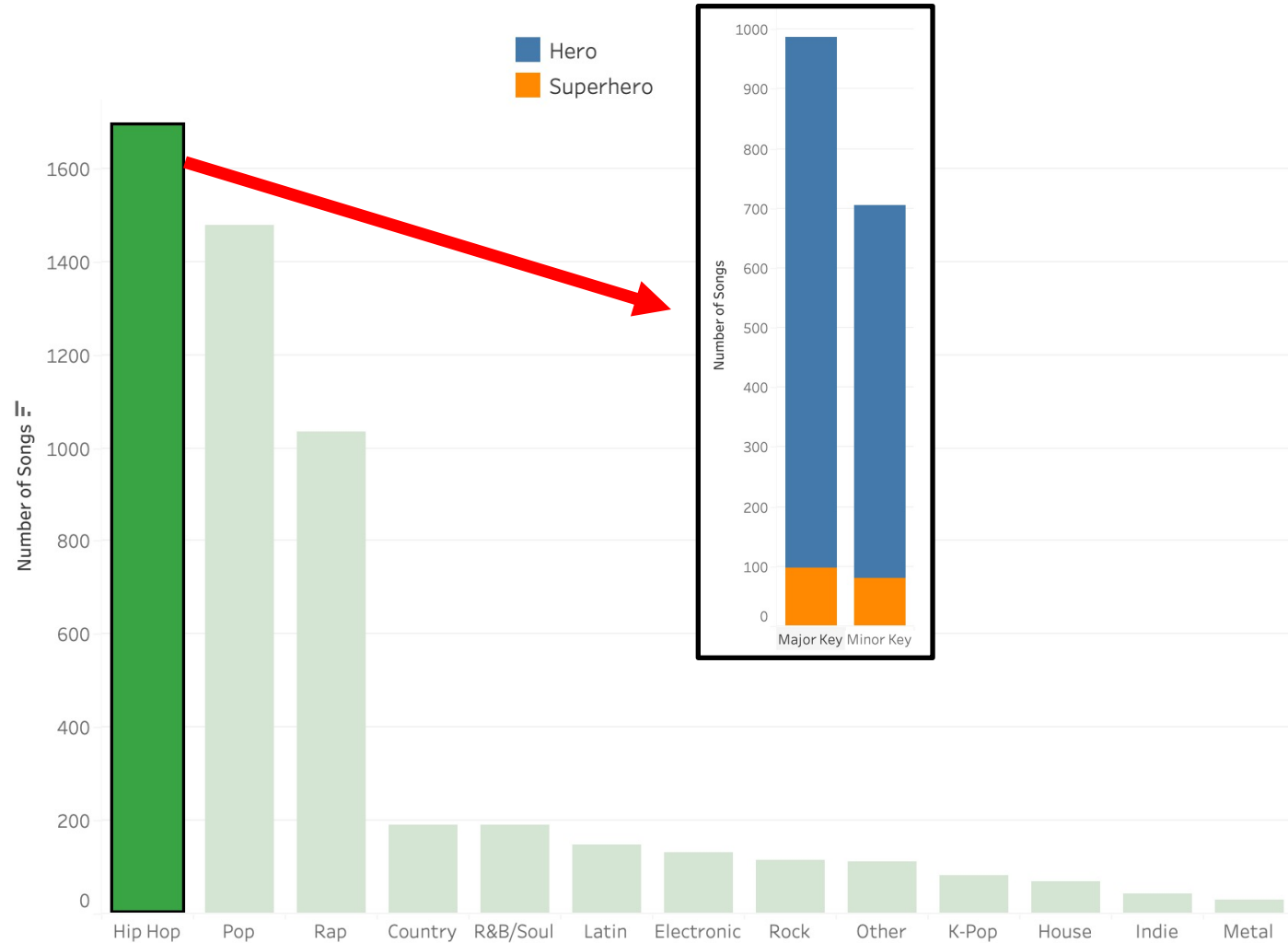# Let's Focus on Hip Hop
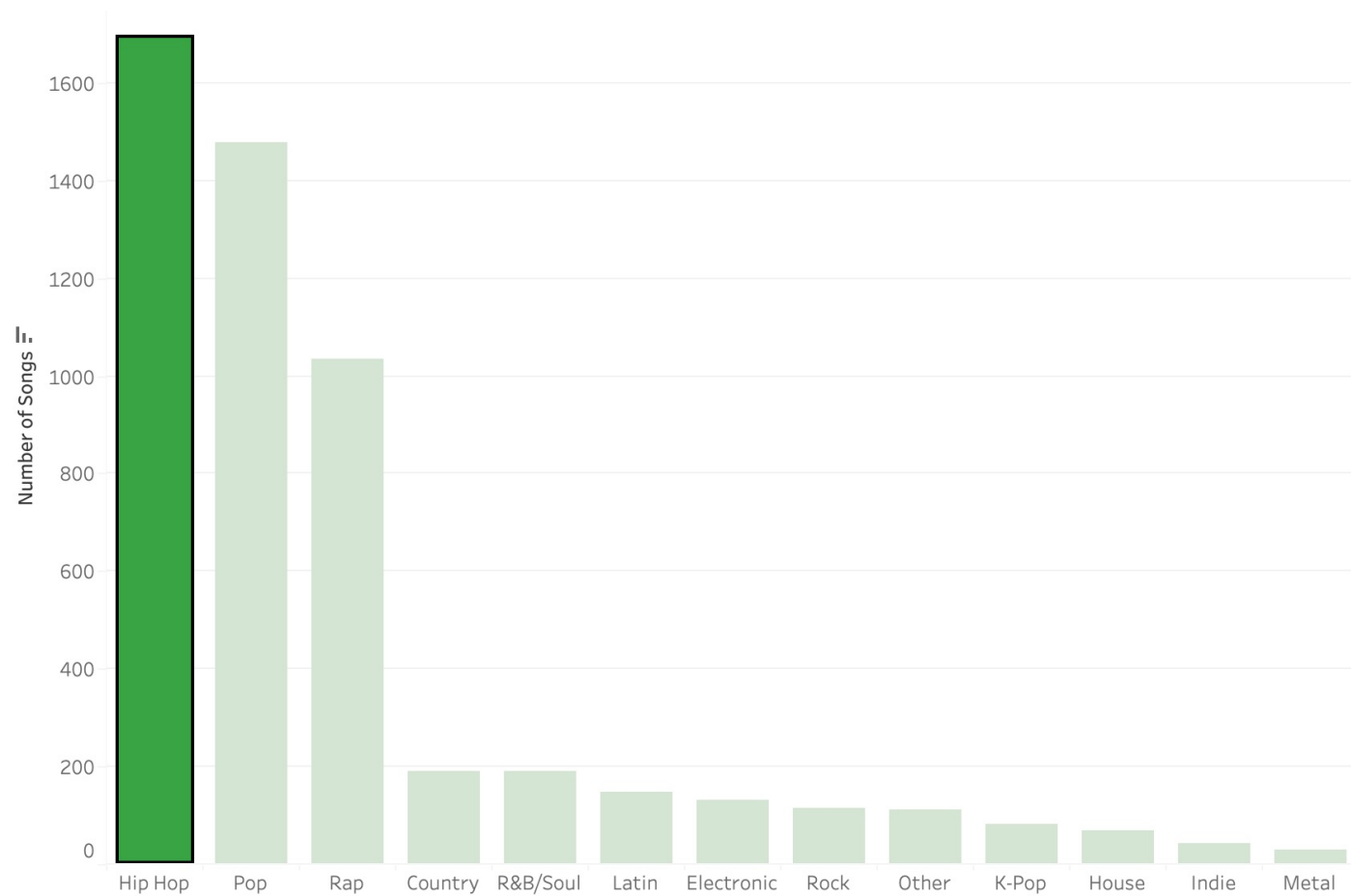
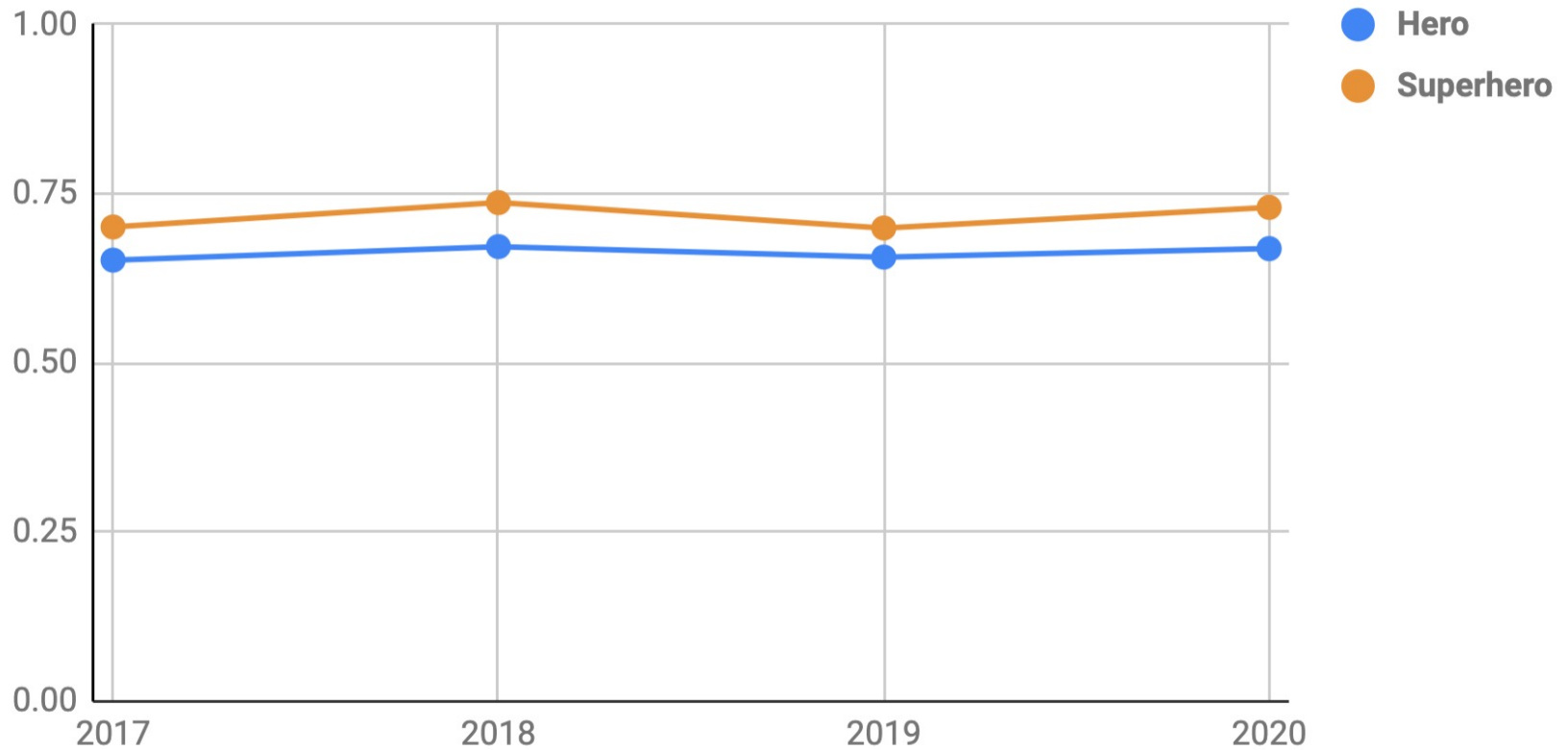# Hip Hop Insight: Modality (Major vs Minor Key)

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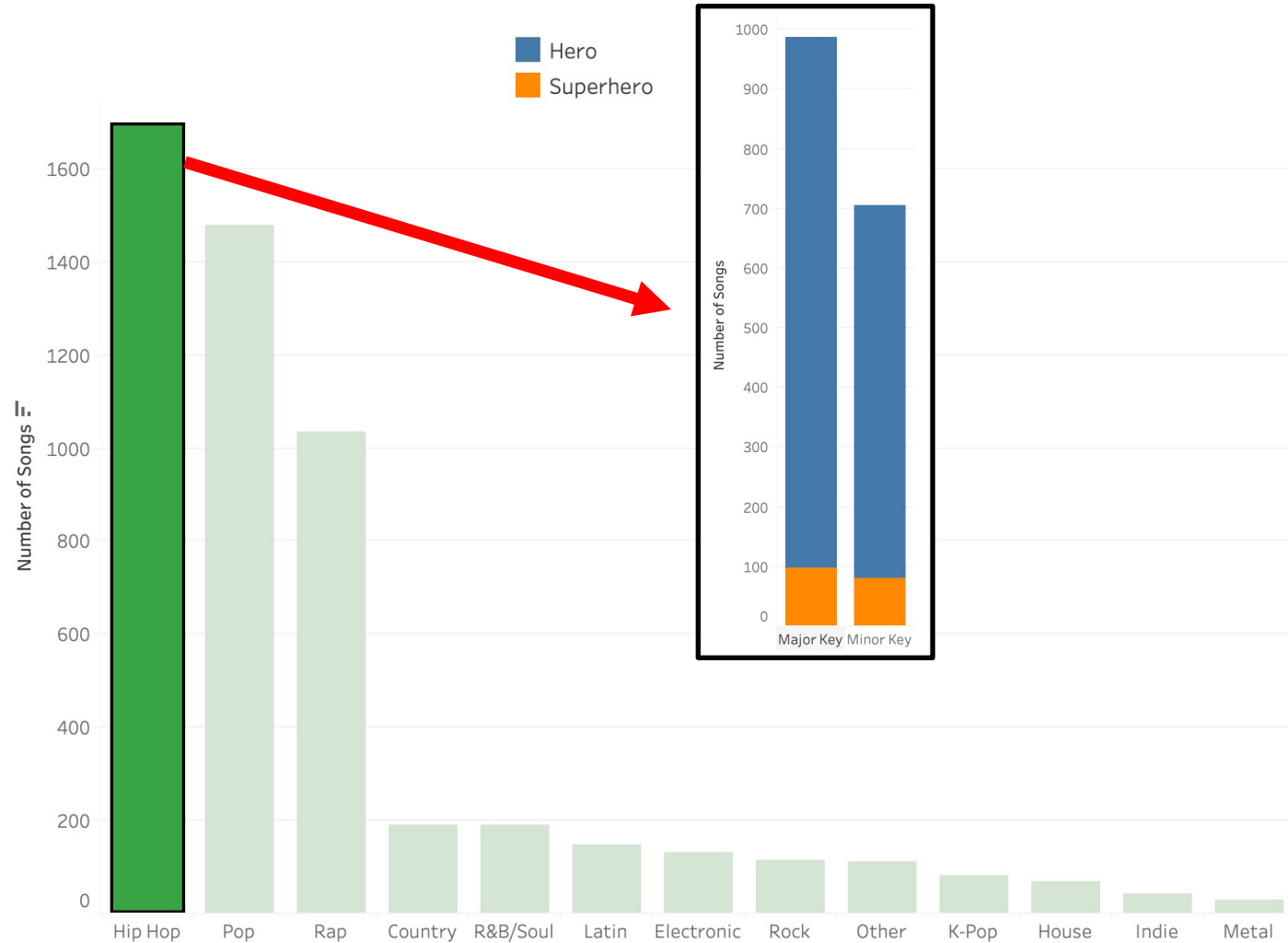
Hip Hop Takeaway: Higher superhero/hero ratio
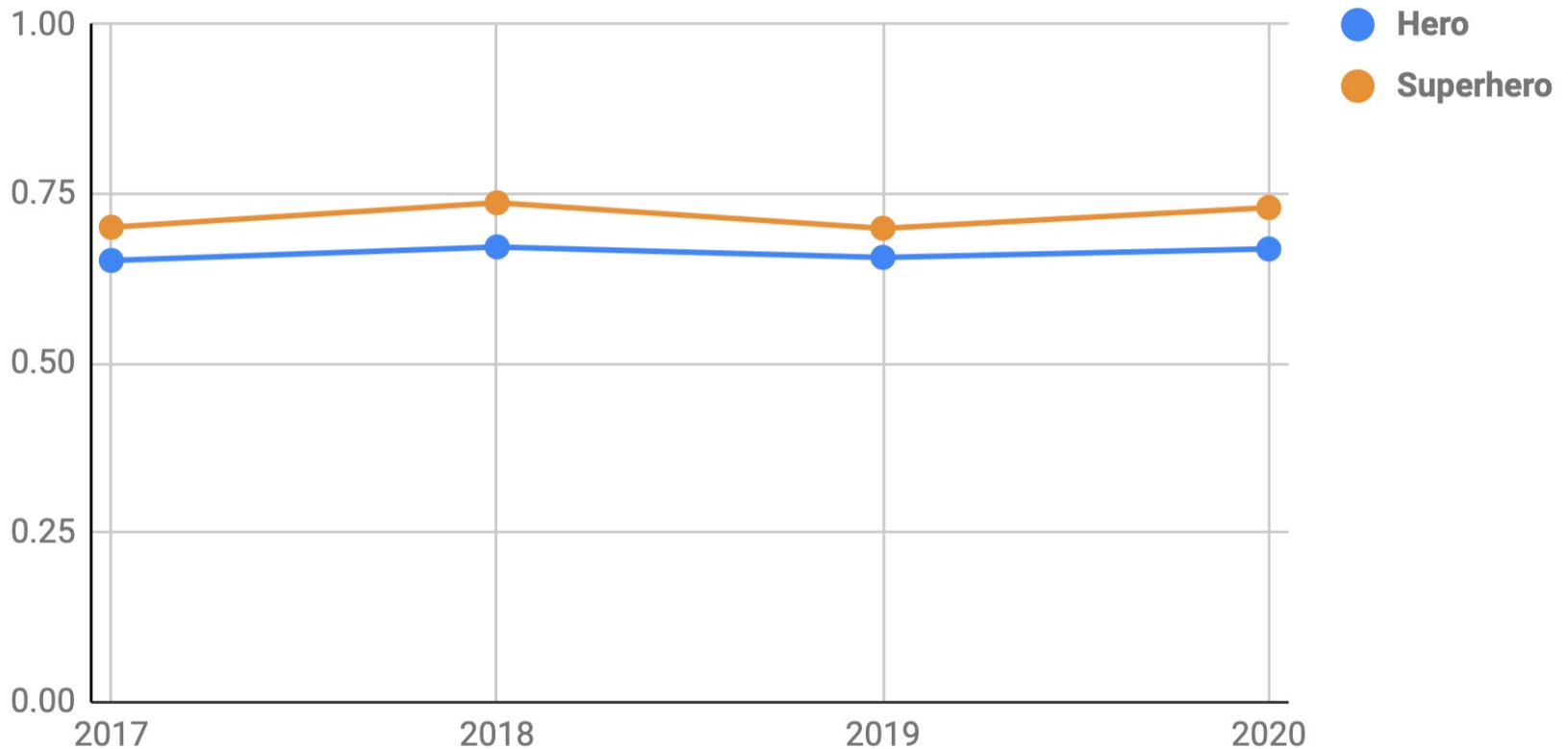for songs in minor key

Pop Insight: Danceability & Year
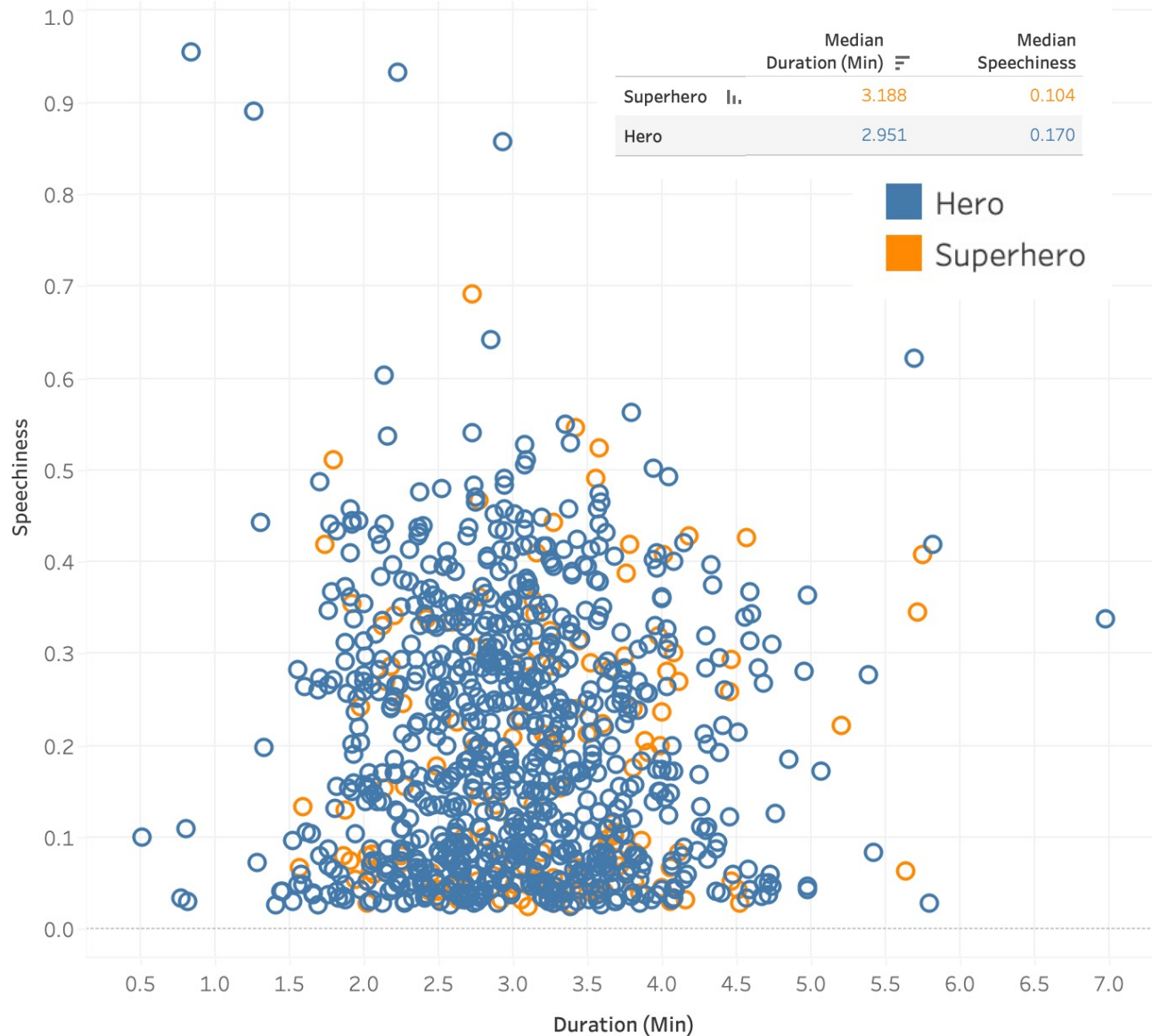
Median Danceability of Pop Songs by Year

Pop Insight: Danceability & Year

Median Danceability of Pop Songs by Year

Legend:
- Hero
- Superhero

Pop Takeaway: Superheroes have higher median danceability than heroes in all four years

Three Free Takeaways

Hip Hop Takeaway: Slightly more major key superheroes BUT higher superhero/hero ratio for songs in minor key

Pop Takeaway: Superheroes have higher median danceability than heroes in all four years

Rap Takeaway: Superheroes have longer duration and lower speechiness than heroes, but make sure to stay within tighter bounds!

- More sophisticated genre classification
- In-depth features (e.g. NLP lyrics analysis)
- Machine Learning models for prediction and interpretation (Regression, Classification, Time Series Analysis)
- <u>New Frontiers</u>: Radio playlist recommendations,
Award candidacy

Thank You!