# K-pop Insights

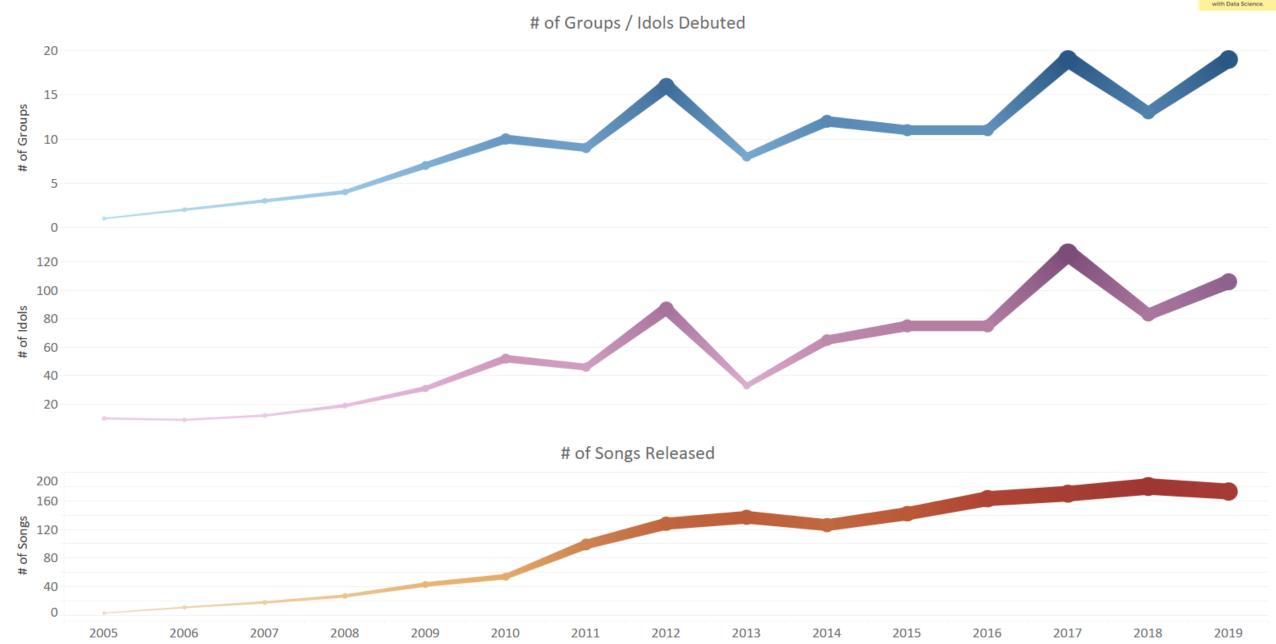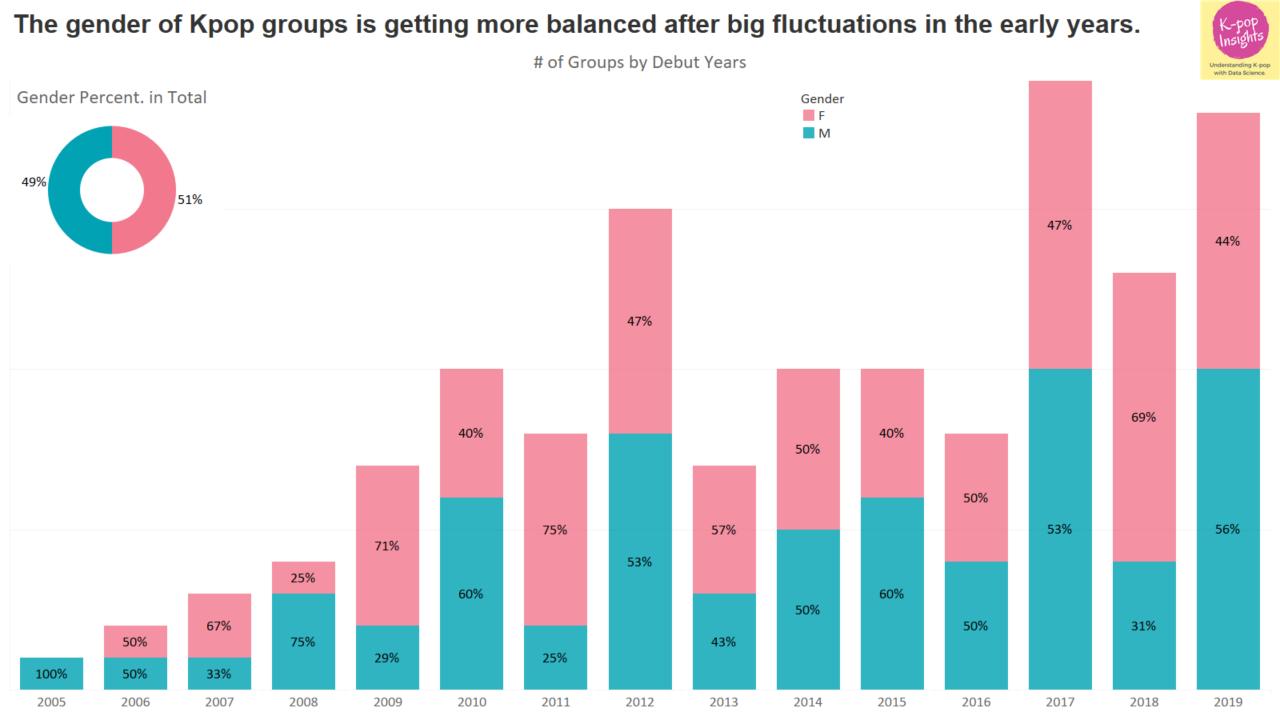## Understanding K-pop with Data Science.

# 01 - Demographical Analysis

In this study, I analyzed 3 demographics (age, gender and country) of K-pop idols trying to find out any interesting insights.

By Yuchen Wang.

# Overview: K-pop took a huge leap during the past 10 years, the number of groups, idols debuted and songs released jumping up by 5 times 2008-2019.
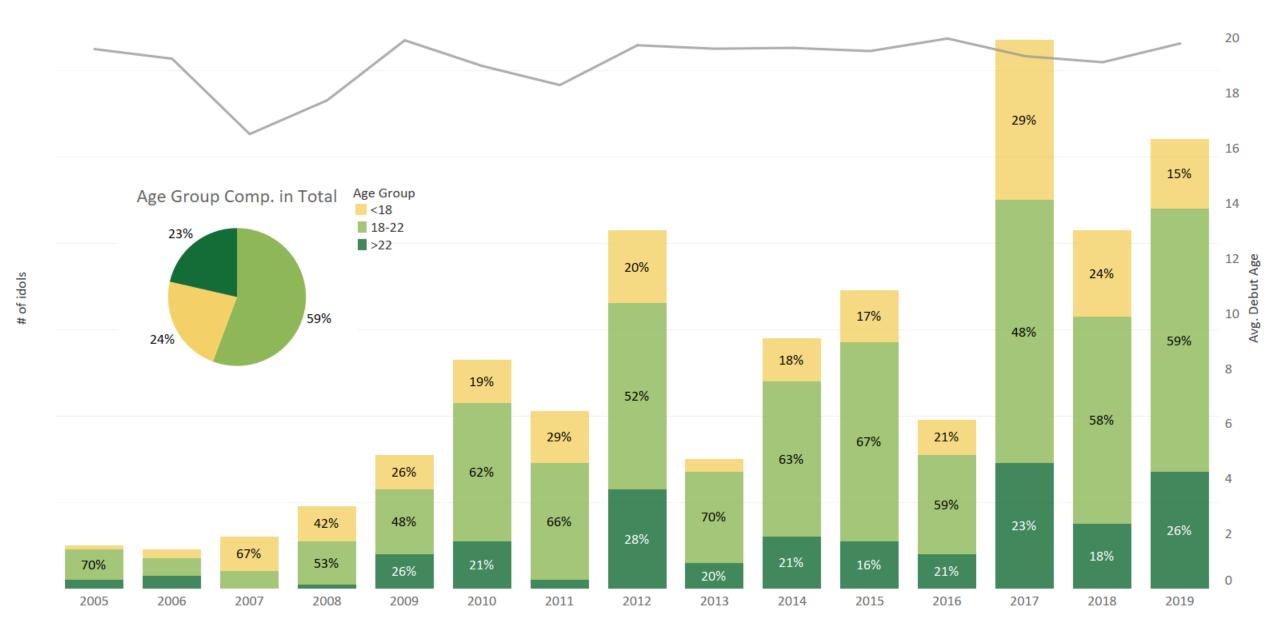
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## # of Groups / Idols Debuted



## # of Songs Released

# The gender of Kpop groups is getting more balanced after big fluctuations in the early years.

## # of Groups by Debut Years

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### Gender Percent. in Total

49%   51%

**Gender**
F
M

| Year | M | F |
|------|-----|-----|
| 2005 | 100% | |
| 2006 | 50% | 50% |
| 2007 | 33% | 67% |
| 2008 | 75% | 25% |
| 2009 | 29% | 71% |
| 2010 | 60% | 40% |
| 2011 | 25% | 75% |
| 2012 | 53% | 47% |
| 2013 | 43% | 57% |
| 2014 | 50% | 50% |
| 2015 | 60% | 40% |
| 2016 | 50% | 50% |
| 2017 | 53% | 47% |
| 2018 | 31% | 69% |
| 2019 | 56% | 44% |

# Most of K-pop idols debut during 18-22 yrs old, with the average debut age of idols remaining ~20.

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## Average Age & Age Group Contribution

**# of idols** (left axis) / **Avg. Debut Age** (right axis)

### Age Group Comp. in Total

Age Group
- <18
- 18-22
- >22

Pie chart: 59% (18-22), 24% (<18), 23% (>22)

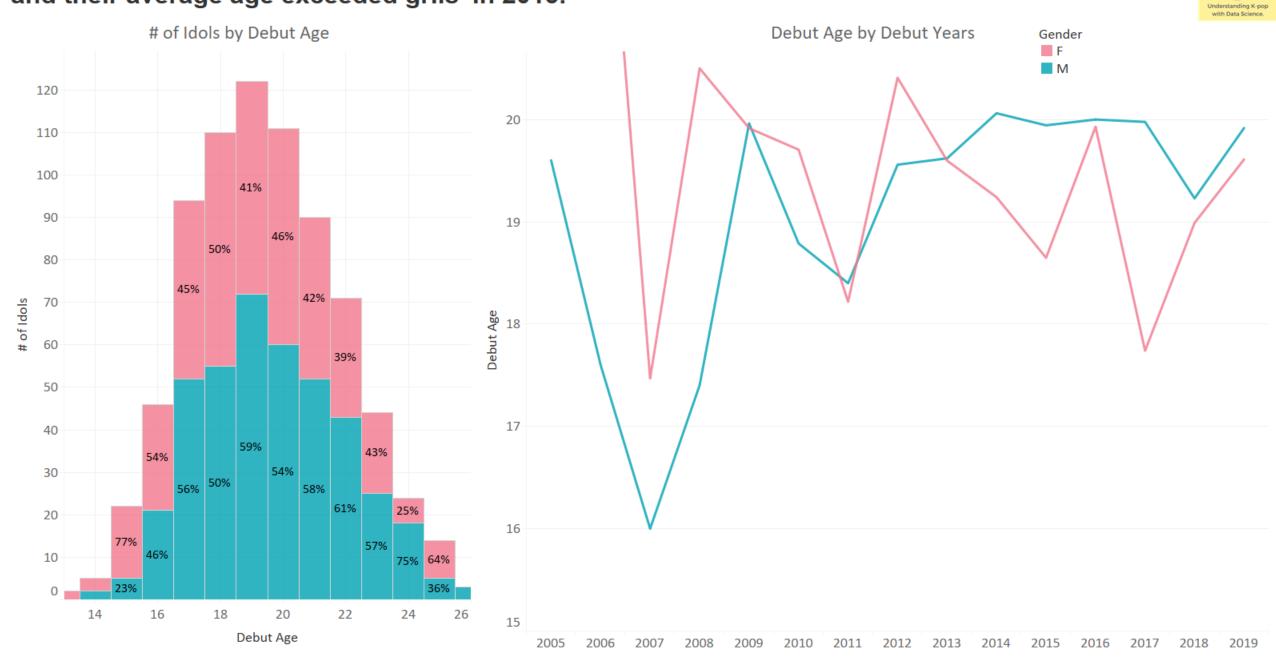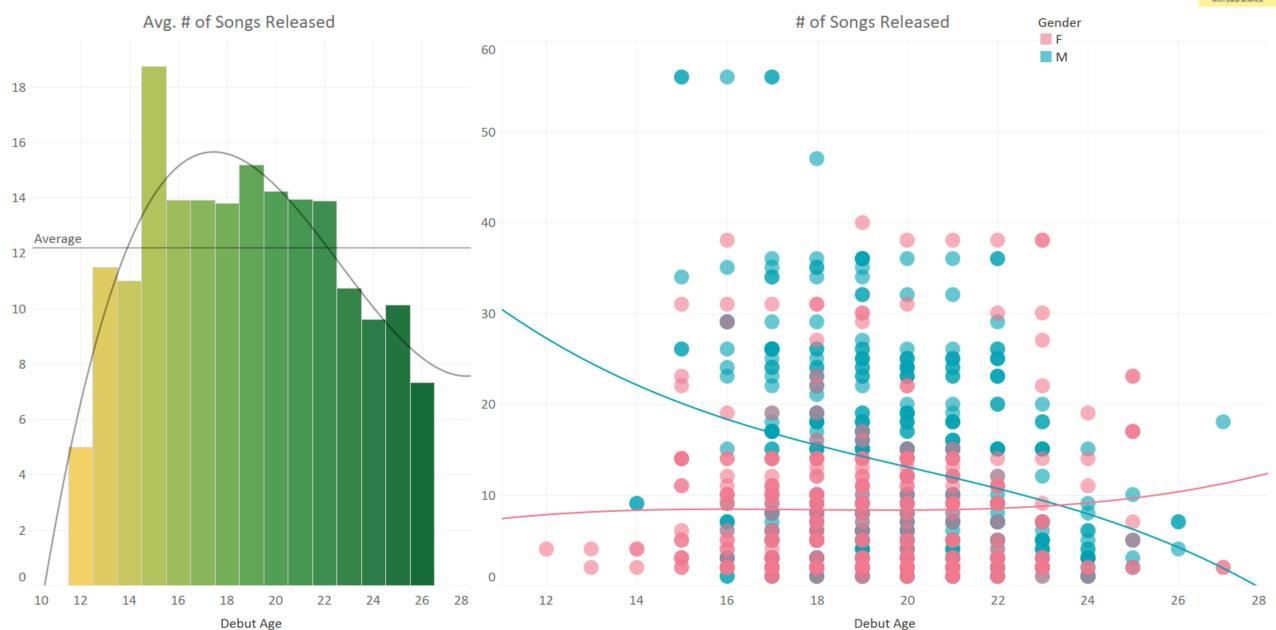| Year | <18 | 18-22 | >22 |
|------|-----|-------|-----|
| 2005 |     | 70%   |     |
| 2006 |     |       |     |
| 2007 | 67% |       |     |
| 2008 | 42% | 53%   |     |
| 2009 | 26% | 48%   | 26% |
| 2010 | 19% | 62%   | 21% |
| 2011 | 29% | 66%   |     |
| 2012 | 20% | 52%   | 28% |
| 2013 |     | 70%   | 20% |
| 2014 | 18% | 63%   | 21% |
| 2015 | 17% | 67%   | 16% |
| 2016 | 21% | 59%   | 21% |
| 2017 | 29% | 48%   | 23% |
| 2018 | 24% | 58%   | 18% |
| 2019 | 15% | 59%   | 26% |

# Boy groups are getting more mature: they are taking more proportions in older age groups and their average age exceeded grils' in 2013.
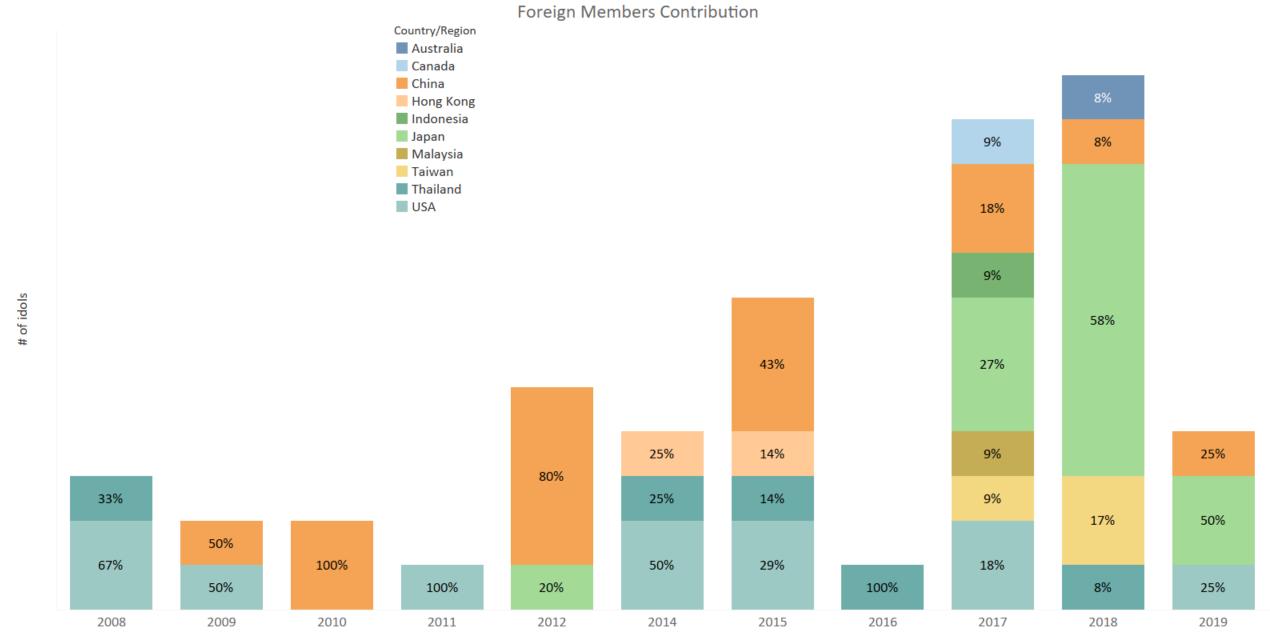


## # of Idols by Debut Age

## Debut Age by Debut Years

Gender
- F
- M

# Kpop idols averagely release 12 songs, while boys facing a crisis of fewer productions when debuting at an older age.



Avg. # of Songs Released

# of Songs Released

Gender
F
M

Debut Age

# More people from countries other than Korea are joining K-pop groups: the proportion of Japanese members debuted is obviously rising while it of Chinese members shrinking.
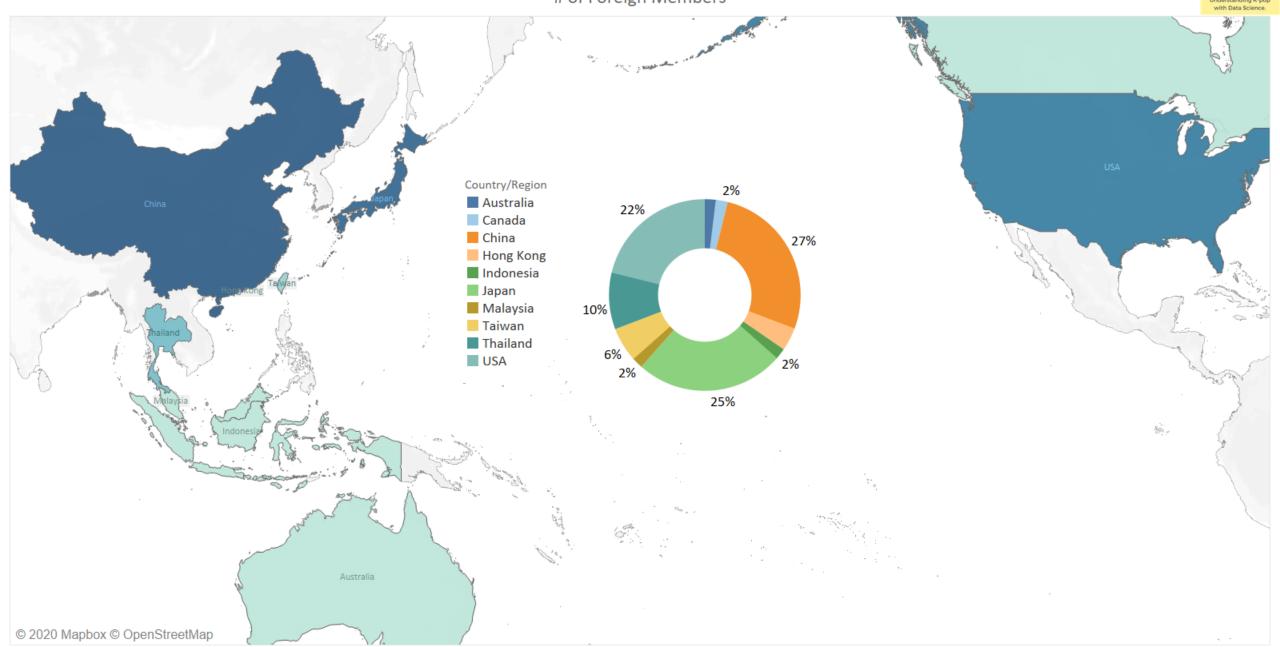


Foreign Members Contribution

# Most of foreign members in K-pop groups come from China (27%), Japan (25%) and US (22%).

## # of Foreign Members



**Country/Region**
- Australia
- Canada
- China
- Hong Kong
- Indonesia
- Japan
- Malaysia
- Taiwan
- Thailand
- USA

Pie chart values: 2%, 27%, 22%, 2%, 25%, 2%, 6%, 10%

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# Foreign mature idols mostly came from Japan, while producing few songs.
# Idols from China have a domain in main age group 18-22.

## # of Members

| Gender | Age Group | |
|---|---|---|
| | <18 | USA 38%, Taiwan 13%, Japan 38%, Hong Kong 13% |
| F | 18-22 | USA 8%, Thailand 25%, Taiwan 8%, Japan 17%, China 42% |
| | >22 | Japan 63%, China 38% |
| | <18 | USA 33%, Thailand 8%, Taiwan 8%, Hong Kong 8%, China 33%, Canada 8% |
| M | 18-22 | USA 13%, Thailand 9%, Japan 17%, Indonesia 4%, Hong Kong 4%, China 43%, Canada 4%, Australia 4% |
| | >22 | |

## # of Songs

| Gender | Age Group | |
|---|---|---|
| | <18 | USA 40%, Taiwan 14%, Japan 19%, Hong Kong 26% |
| F | 18-22 | Thailand 40%, Taiwan, Japan 13%, China 36% |
| | >22 | Japan 36%, China 64% |
| | <18 | USA 58%, Thailand 16%, China 16% |
| M | 18-22 | USA 12%, Thailand 7%, Japan 6%, Hong Kong 9%, China 40%, Canada 19%, Australia 7% |
| | >22 | |

**Country/Region**
- Australia
- Canada
- China
- Hong Kong
- Indonesia
- Japan
- Malaysia
- Taiwan
- Thailand
- USA

# Key Take-aways

- K-pop took a huge leap in the past 10 years.
- The gender of groups is getting more balanced.
- Most of K-pop idols debut very soon after becoming adults.
- Boy groups are getting more mature.
- Boys face a crisis of fewer productions when debuting at an older age.
- More foreign members are joining K-pop groups, mainly coming from China, Japan and US

# More in the Future

Some spoiler alerts:
- Dashboards on PowerBI and Google Data Studio
- Group Name NLP
- K-pop Group Clustering

If you are interested in working on this fun project with me, please feel free to contact me!
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**Appendix:**

- Tableau Dashboard:
https://public.tableau.com/views/KpopInsights_01_DemographicalAnalysis/Kpop Insights_01?:language=en&:display_count=y&:origin=viz_share_link

- Data Source:
Dbkpop.com