EDHEC BUSINESS SCHOOL

MSc Data Analytics

Data Visualization and Data Storytelling

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Solution Architect, Data Analyst, Data Engineer, Data Scientist
IBM Global Industry Solutions Center, France

HELLO!

I am Emmanuel Génard

Emmanuel has been in various Technical pre-sales and consulting roles (Solution Architect, IT Architect, Data Scientist, …) target at customers and Business Partners. He has been working for IBM for more than 20+ years delivering solution design, architecture design, doing business development, technology assessment and proof of concepts, education and technology influencer.
Emmanuel has 20+ years of experience with large Retail accounts and 5 years experience dealing with Government Agencies on topics such as:

- Public Safety
- Smarter Cities
- Customs and Border Management

Wih a strong focus on data management, advanced data analysis and data visualization, Emmanuel is a mix of data engineer and data scientist.

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Class objectives

UPON COMPLETION YOU WILL HAVE

A good understanding of the **basic concepts** of Data Visualization
Knowledge to perform **data acquisition, preparation and analysis**
Full understanding of visual perception
Experience on selecting the most impactful **visual elements**
A good understanding of the concepts of story telling and data visualization interactivity

Agenda

November 7th , 2019		
Fundamentals and Big Ideas	08:00 – 08:30	Introduction
	08:30 – 10:00	What is Data Visualization and Why use it?
	10:00 – 10:30	Let's talk Data Science and Exploratory Visualization
	10:30 – 10:45	Coffee Break
	10:45 – 10:55	What's your own definition of Data Visualization?
	10:55 – 11:15	Nobel Prices & Laureates - Obesity vs. Education Challenge
	11:15 – 12:00	Working with Data
	Lunch break	
	13:00 – 13:20	Tools
	13:20 – 14:00	Data Lab
Design Principles and Visual Elements	14:00 – 15:15	Visual Encoding
	15:15 – 15:30	**QUIZZ Part 1**
	15:30 – 15:45	Coffee Break
	15:45 – 16:50	Work on a DataViz – Work on your Data
	16:50 – 17:00	Day Wrap-up & Conclusion

Agenda

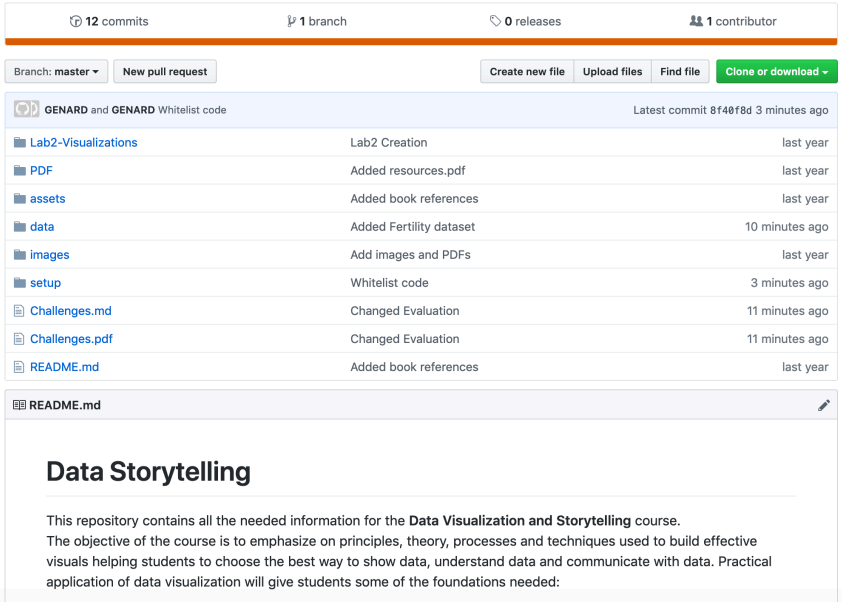
	November 13th , 2019	
Data Storytelling	09:00 – 09:10	Day one recap – Day two objectives
	09:10 – 09:30	What is Data Storytelling?
	09:30 – 10:15	Narrative Structure and Storyboarding
	10:15 – 10:30	Get your headline and Storyboard
	10:30 – 10:45	Coffee Break
	10:45 – 11:20	Interactivity – Pulling it all together
	11:20 – 12:00	Working with Data and Exploratory Visualization
Evaluation	**Lunch break**	
	13:00 – 14:30	Finalize your Group work
	14:30 – 14:45	Coffee Break
	14:45 – 15:00	**QUIZZ Part 2**
	15:00 – 16:50	Group work Evaluation – **Timed presentation**
	16:50 – 17:00	Wrap-up & Conclusion

Content

All the content is being posted online

- **Blackboard**
- **GitHub** repository

  http://ibm.biz/EDHEC_DataViz



Evaluation

You'll be evaluated throughout the course in several ways:

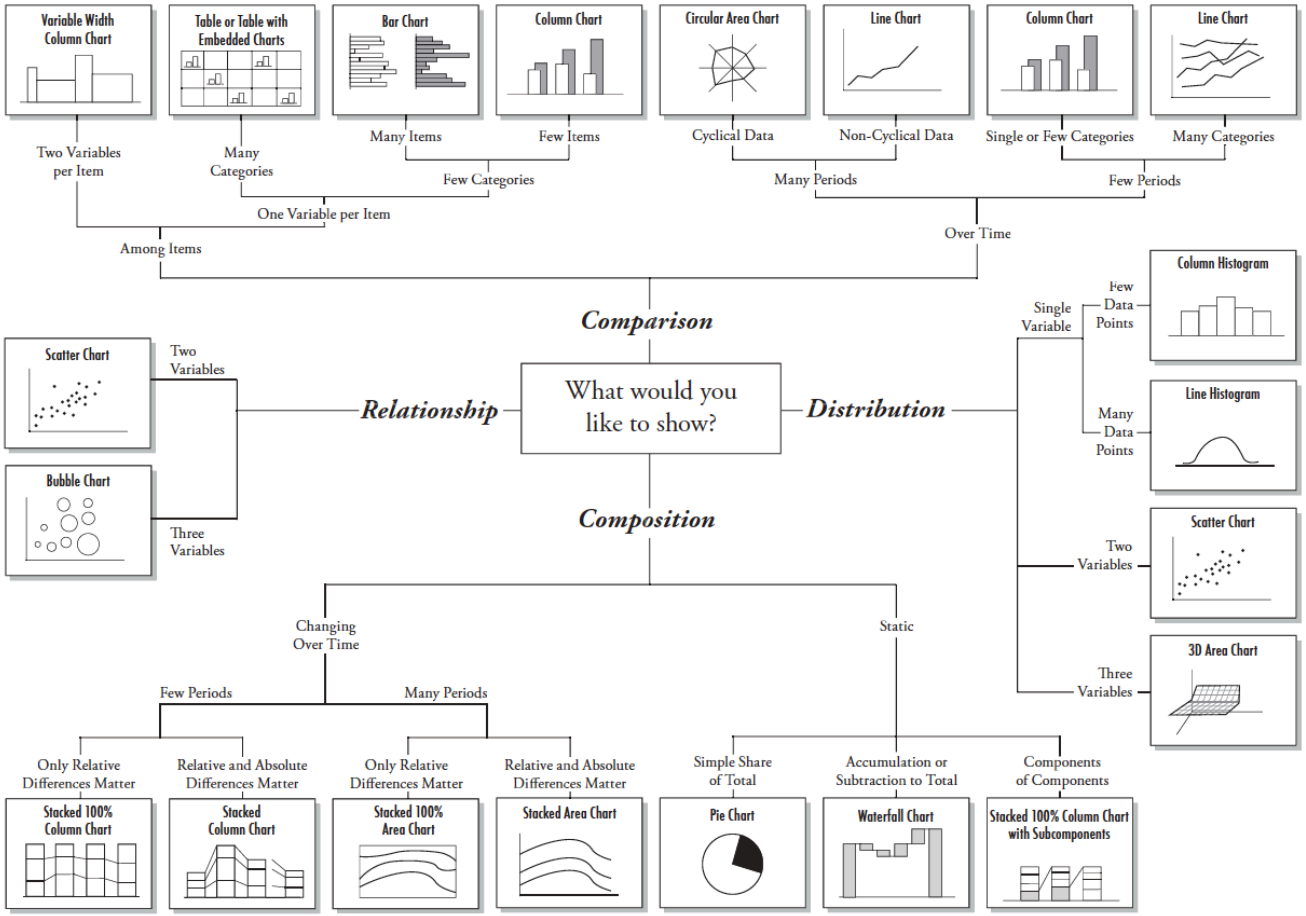
- **Participation**
- **Personal work**: quizz, challenges
- **Group work**:
  - Groups of 3 to 4
  - Identify a topic and a 'Business Question'
  - Gather and prepare your data
  - **Sketch/Mockup** a Data Visualization
  - Build a story
  - Timed-presentation in front of audience

Your audience will listen to you, eventually ask questions **once timer** is elapsed.

Bonus

Implement your Data Visualization in a Tool of your choice (Tableau Software)

Day One - Recap

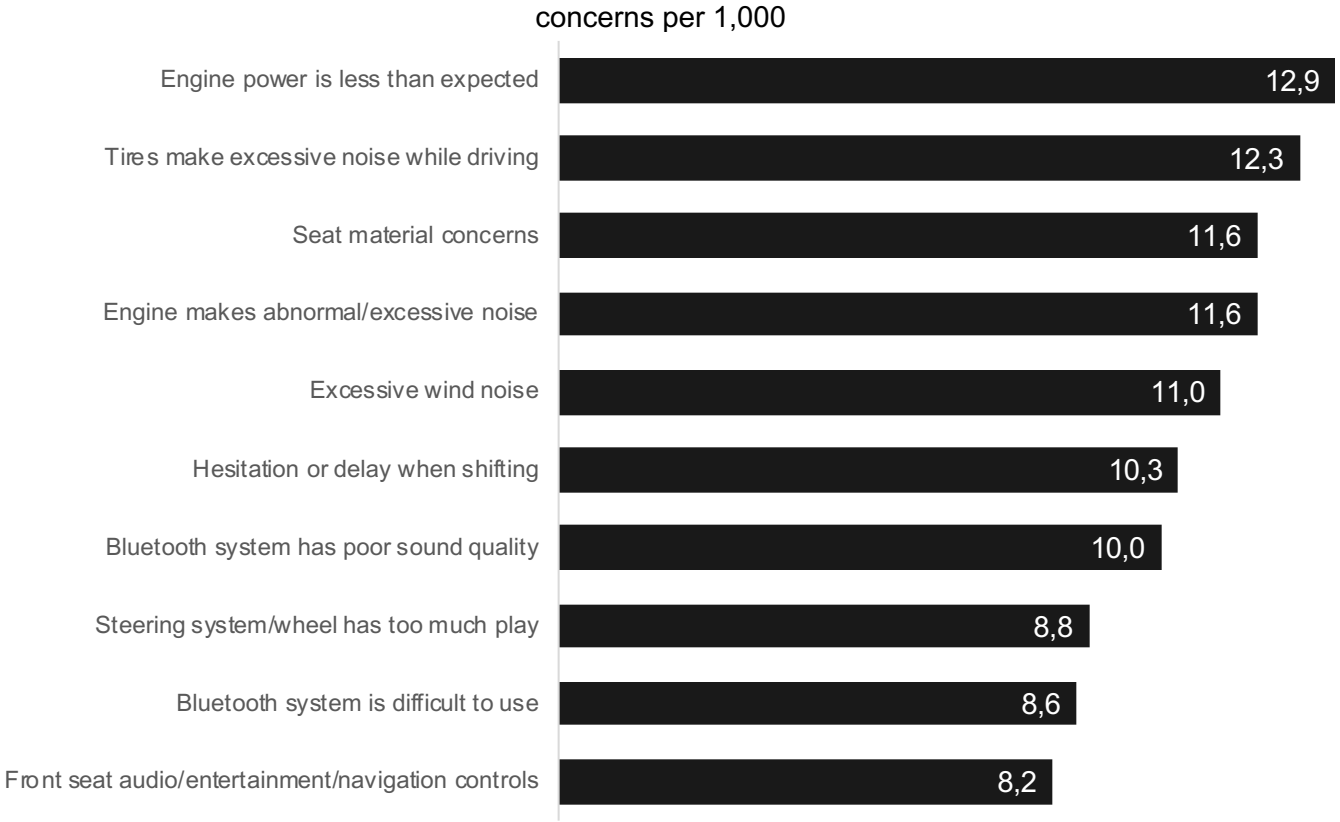


A chart suggestion – A thought starter

Day One - Recap

Preattentive attributes in graphs

Top 10 design concerns

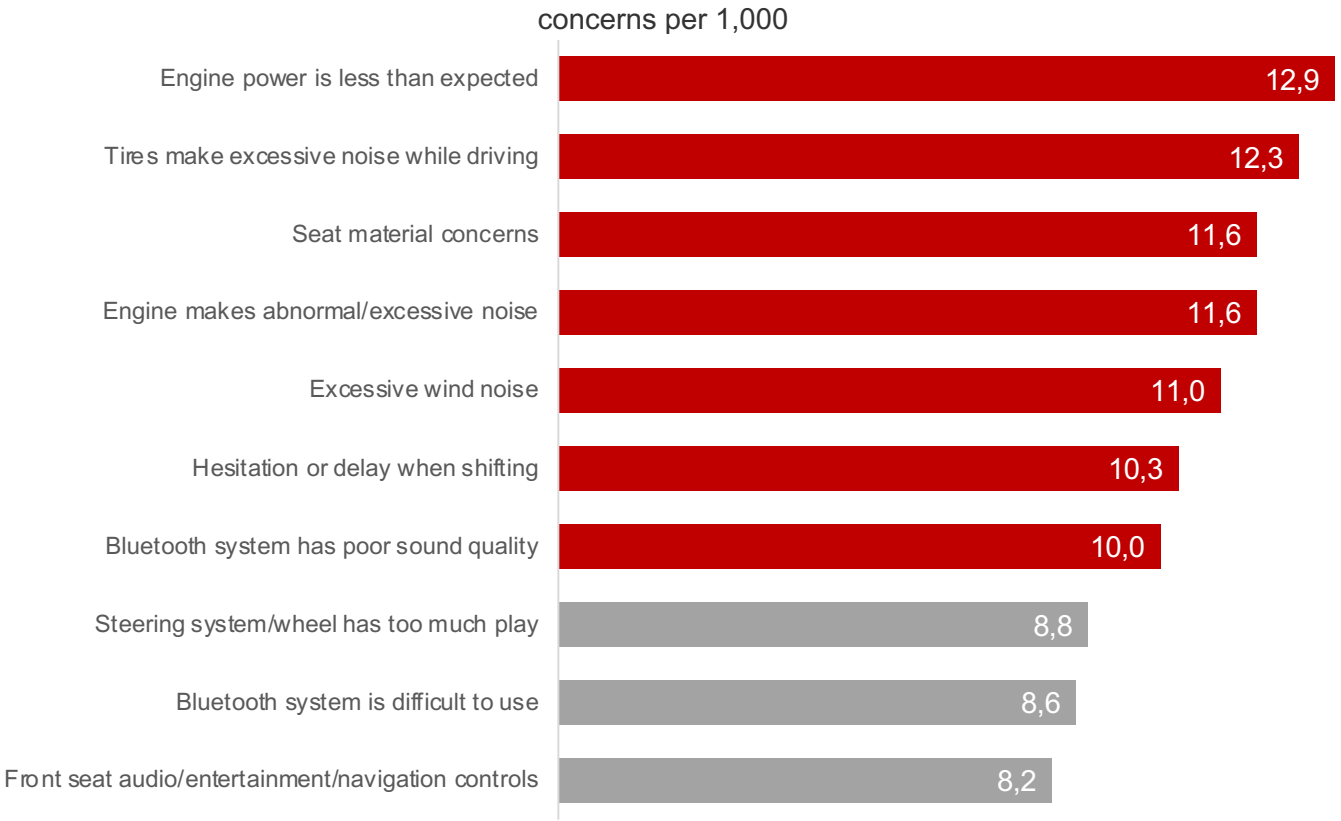


Day One - Recap

Preattentive attributes in graphs

Top 10 design concerns

7 of the top 10 design concerns have 10 or more concerns per 1,000

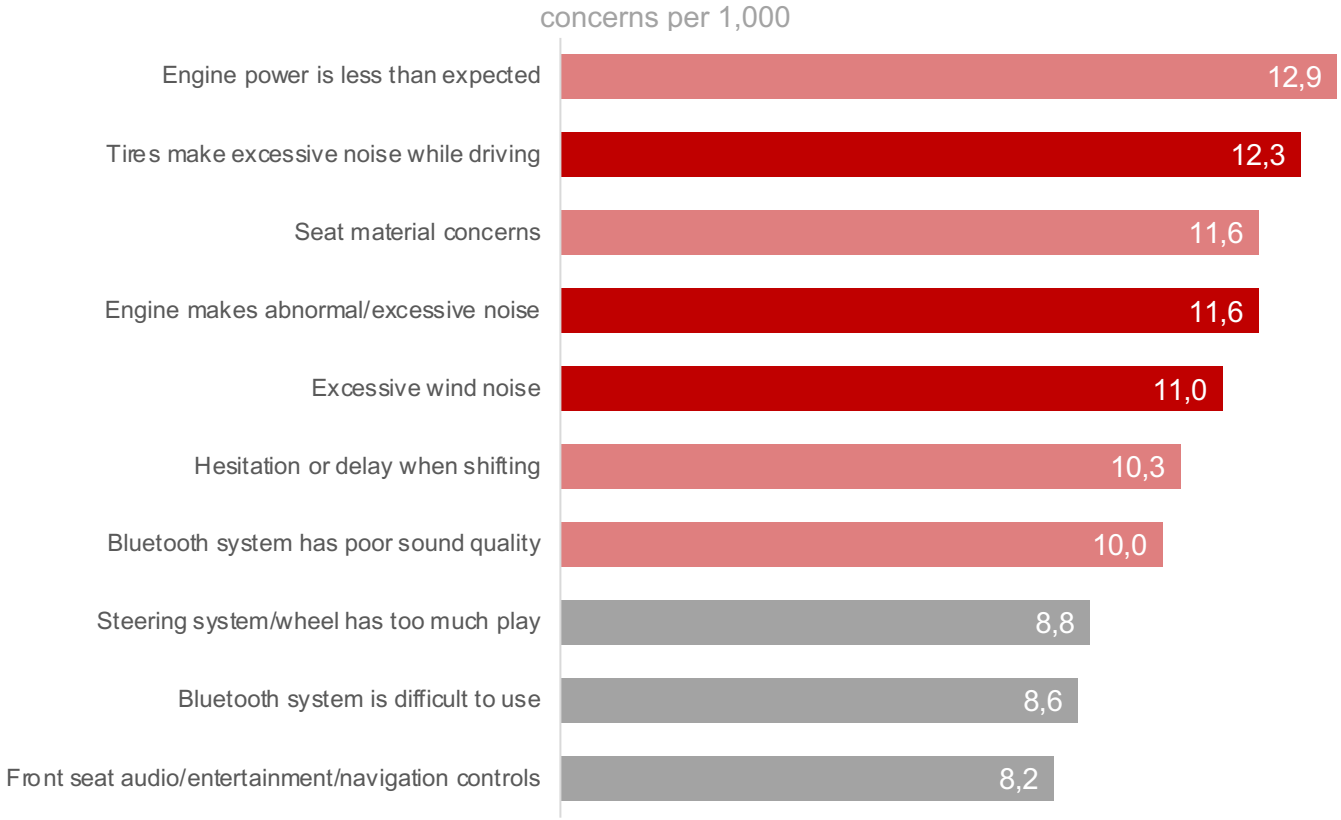


Day One - Recap

Preattentive attributes in graphs

Top 10 design concerns

Of the top design concerns, three are noise-related



Comments indicate that **noisy tire issues** are most apparent **in the rain.**

Complaints about **engine noise** commonly cited **after the car had not been driven for a while.**

Excessive **wind noise** is noted primarily in **freeway driving at high speeds.**

Day One - Recap

Preattentive attributes in graphs

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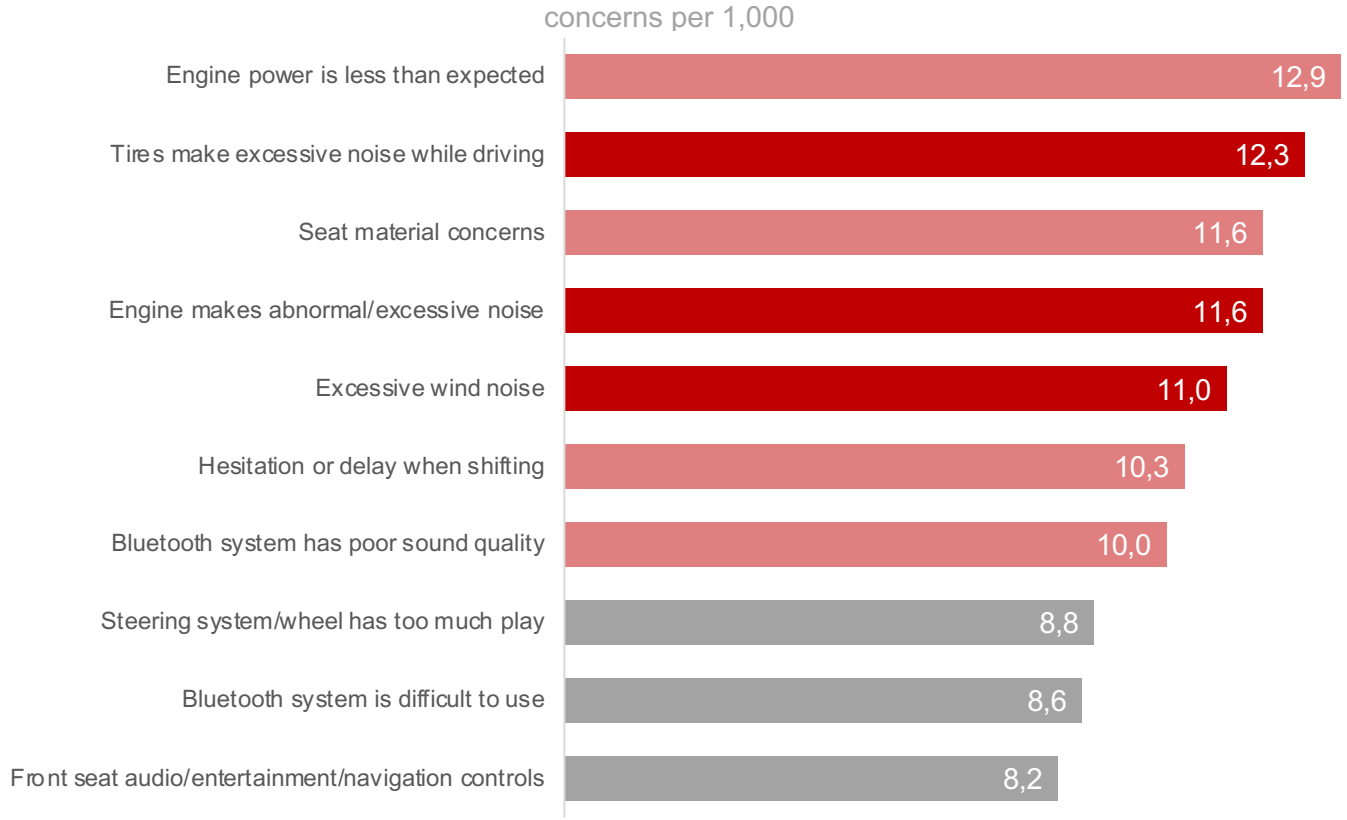

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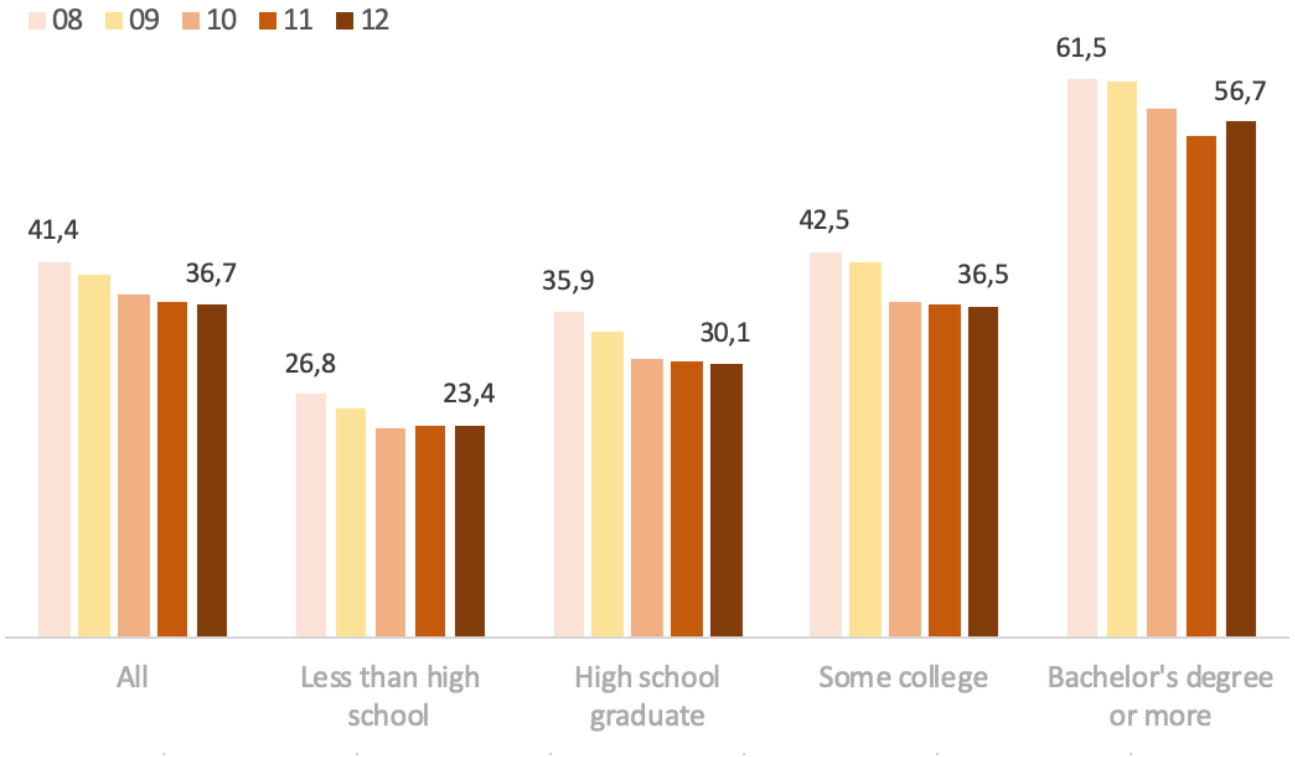
New Marriage Rate by Education

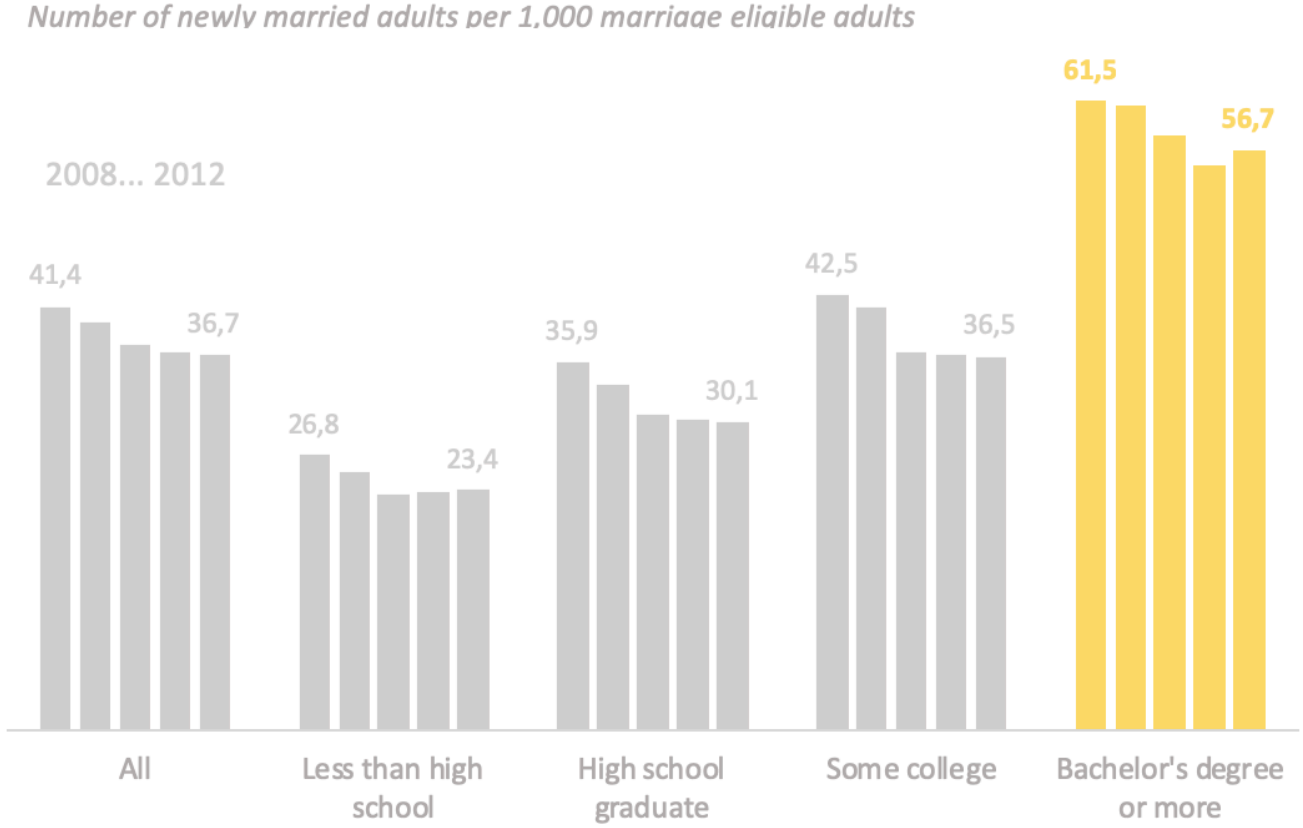
Number of newly married adults per 1,000 marriage eligible adults



Note: Marriage eligible includes the newly married plus those widowed, divorced, or never married at interview.

Source: U.S. Census

New Marriage Rate by Education



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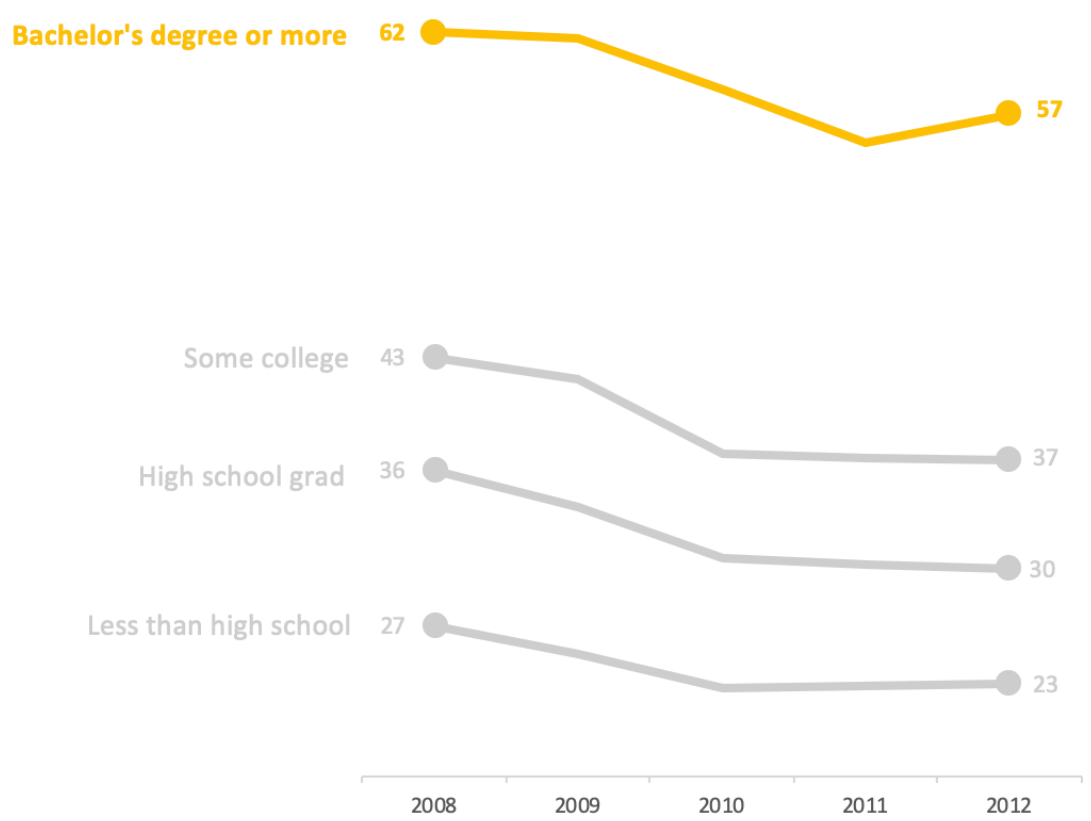

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THANKS!

Any questions?

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