**Volkswagen Diesel Emissions**

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| * **Short History of Diesel Gas**   + Includes Diesel vs. Gasoline stats for US and Europe (1980-now) | |
| * **Motivations for Making Diesel Sell better in Europe**   + From the POV of the companies (market differentiation)   + From the POV of the customer (mileage) | |
| But the real problem with diesel is the emissions…   * **Emission stats (comparing regulation to actual)**   + <http://www.theicct.org/sites/default/files/publications/ICCT_PEMS-study_diesel-cars_20141010.pdf>   + Across all car companies | |
| * **Volkswagen wrote code to cheat this**   + Explain how it was caught, the WestVirginia study : <http://www.npr.org/2015/09/24/443053672/how-a-little-lab-in-west-virginia-caught-volkswagens-big-cheat> | |
| * **Q1: Who did this?** | |
| * **A corporate Decision** | * CEO of Volkswagen International, taking responsibilty resigning * Repurcussions for brand |
| * **A Rogue Software Engineer** | * Insert quote from CEO of Volkswagen America  (and video) * https://www.youtube.com/watch?v=Sr9GknJ1kGk * Repurcussions for computer science profession |
| * **Technology section**   + How did they write code that did this?   + Explain what it monitored to decide if it was being tested or not.   + Explain how this could be made even better, harder to find. | |
| * **Long term impacts**   + VW has set aside 18billion dollars in fines   + DOJ still deciding fines   + European regulators starting to look at this | |
| * **Q2: What would you do if you were VW right now (free-form Q)**   + Possible responses:     - Recall     - Upgrades to cars / trade in     - Try to do nothing?     - Hope other car companies have the same problems? | |
| * **Q3: What would you do if you were the employee who was asked to write this code?**   + Possible responses:     - Write the code --- now your job is on the line     - Tell your boss --- Boss does nothing…     - Quit --- now you have no job     - Tell the media / whistleblow --- let people know | |
| * **What happens from here?**   + Lawsuits…   + Continued efforts from regulators (especially Europe)   + Further changes in emissions testing | |