



## Decision Making in Medicine Daddy, which medical specialty should I choose after passing my medical certification exam?

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### ABSTRACT

Very few medical students, at the end of their medical education, are certain about their clinical future. This study investigated the correlation between the medical specialty and the decision for a car brand of heads of medical departments as a measure of income and prestige.

#### Methods:

A prospective survey among heads of departments in German-speaking countries.

The investigation was performed in Austria, Germany and Switzerland (April-June 2017). 238 data sets were collected on the preference of the car brand with relation to the clinical specialty.

#### Results:

The car's brand and price were clearly associated with the medical specialty. Emergency physicians and pathologists were most modest in their choices followed by psychiatrists and anaesthesiologists. The vehicle's price was directly proportional to the medical specialty's invasiveness.

#### Conclusions:

The car brand may guide young colleagues in their decision for a medical specialty according to their requirement for social prestige with regards to income.

**KEYWORDS** : medical specialty, car brand, prestige, education, career development, decision making

### Introduction

When our children, who are studying medicine, asked us for advice as to which specialty they should apply for, we started to discuss the factors influencing this generation. An emphasis was placed on the different tasks, personal abilities, and values, which we were not able to investigate in this study. However, we did try to find the monetary incentive and its association with the various medical specialties. Consequently, we looked for a simple method to quantify economic aspects of medicine in a formal way.

The values between generations differ widely. For the generation of the department heads, socioeconomic status plays a different role compared to Generation X or Y. We asked our children to specify what they perceive to be important factors when choosing a medical profession. The main aspects they mentioned were work-life balance, local job availability, image and so on (Table 1). Also, the current trend in the general workforce is moving towards an even work-life balance. This illustrates the shift between the different generations, where finding the best paid job is no longer of greatest importance.

Nevertheless, income does matter also for the younger generations, yet an easy and transparent marker of income is lacking. The financial power of medical institutions varies widely and detailed financial reports are probably difficult to interpret by the untrained

eye. Furthermore, income could be linked to the institution as well as the medical specialty, such that, selecting the institution as well as medical specialty is a complex decision-making process. We, therefore, performed a prospective survey among heads of department, to find an association between their medical specialty, the type of institution where they work and the make of car that they drive.

### Methods

We performed a prospective mail-based survey among heads of department and collected data about their medical specialty, type of institution, and make and model of their vehicle. The study was performed during April-June 2017. We recorded 238 data sets. After standardisation, we estimated and also standardized the price of the car by using the German listing price of the respective standard model, not the fully-equipped vehicle.

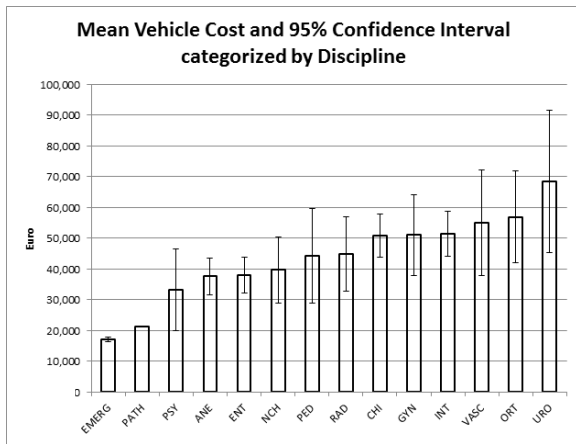
Statistical analyses were performed using Microsoft Excel™ standard software.

### Results

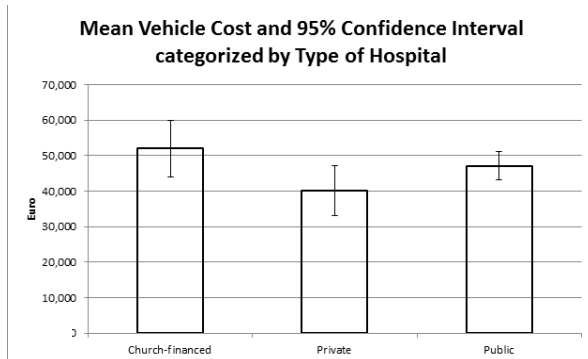
Most data (total 238 data sets) were collected from German colleagues, with the majority working in public hospitals (n=138). The majority of doctors drove European car brands, with Audi, BMW, Mercedes, Porsche and Volkswagen being the top winners. The cars

ranged in price between 20,000 and 120,000 Euros.

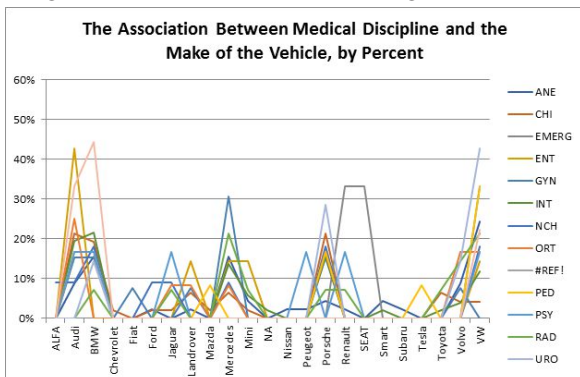
The analysis, which investigated the association between medical discipline and the cost of chosen car, revealed interesting results. The cars of paediatricians were more expensive than expected, while anaesthesiologists and neurosurgeons were more modest. Finally, ENT and anaesthesiologists drive significantly less expensive cars compared to urologists, internists and surgeons.



The type of hospitals also influences the financial commitment to the car. Heads of departments working in Christian hospitals, that is, those managed and financed by the Church, drive significantly more expensive cars compared to individuals working in private hospitals (p = 0.0364).



Finally, the image of the brands differs and can be summarized as follows: vascular surgeons tend to BMW, internists prefer Audi and urologists are attracted to Porsche and Volkswagen.



**Discussion**

Previously, the "barrier method" introduced a new field of research. In 2010, colleagues proposed an easy-to-use tool for career selection by measuring the behaviour during the parking process at a hospital's parking lot. They could clearly demonstrate process differences between medical specialities in the efficiency of parking. We tried to add another tool that focused on

socioeconomics, not on behaviour. Our hypothesis was that the selection of a medical speciality influences income and image or prestige, resulting in the selection of a car's make and model.

The new generations need new models for decision making. Discussions about medical speciality and income are taking place globally, also among young colleagues. The car's brand is linked to emotions, image and prestige, while image and quality are strong indicators for purchase. Furthermore, confidence in a given car manufacturer is also a major factor influencing the purchase. In Asian markets, a product's success is based on its early arrival on the market ahead of the competition. In contrast, in Germany, 44% of drivers select their car by status and the vehicle's features.

We were able to clearly show an association between these factors, linking the medical speciality with the price of the vehicle. Thus, the advice for our young colleagues is as follows: the direction of specialization could be influenced by our data. Additionally, visiting a hospital's staff parking lot may add local information on the economic power of a hospital as well as a medical speciality. Finally, having chosen the medical speciality, we provide data on the car preference of each speciality in three German-speaking countries. For specialties that are not top earners, the organisations should probably focus on a fair income or other compensation mechanisms to attract future employees and be able to recruit.

**Limitations**

The present study has clear limitations with regards to the size of data sets as well as the setting where the investigation was performed. Since only German-speaking colleagues were investigated, there is a definitive bias towards the make of a car driven. The level of income may also differ between the investigated German-speaking countries.

The age difference between young doctors as entrants into the professional life and the heads of department may differ by as much as 30 years. This gap clearly presents different values and, therefore, the suggested model provides only economic data in order to assist in the selection of institution or medical speciality. Other aspects need to be addressed in further studies.

In addition, the status of a "private" hospital is far from identical in all medical systems and countries investigated in this study. Several hospitals in Germany are run by private companies, yet these will probably reflect a public mindset more strongly than a private hospital in the conventional or the Swiss sense. Furthermore, the Christian hospitals are managed by the Church and might have yet another remuneration scheme for its doctors.

Completely unclear remains also the question of future mobility concepts. Perhaps the growth of e-mobility will dramatically change the prestige and image of brands.

In conclusion, further studies are needed to establish easy-to-use tools for socioeconomic comparison of inter-job differences.

<p>Table 1. Factors influencing career selection</p> <p>Patient demographics (age, gender, duration of treatment, and care)</p> <p>Working day (technical/manual specialty, personal contact)</p> <p>Work tasks (standardisation, improvisation, interdisciplinary, degree of specialisation, manual vs. intellectual)</p> <p>Work shifts (night, weekend, overtime)</p> <p>Work-life balance</p> <p>Image</p> <p>Income</p> <p>Career options</p> <p>Load (physical, psychological)</p> <p>Work environment (Hospital, outpatient clinic, private practice)</p> <p>Stress</p>
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