



HELLENIC OPEN UNIVERSITY
SCHOOL OF SOCIAL SCIENCES
Master in Business Administration (MBA)

DISSERTATION

Differences in the degree of satisficing from the work environment
between teachers in Greek Public and Private secondary education

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Patras, Greece, May 2023



ΕΛΛΗΝΙΚΟ ΑΝΟΙΚΤΟ ΠΑΝΕΠΙΣΤΗΜΙΟ
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**Διαφορές στον βαθμό ικανοποίησης από το εργασιακό περιβάλλον
μεταξύ καθηγητών που υπηρετούν στη Δημόσια και Ιδιωτική
Δευτεροβάθμια Εκπαίδευση στην Ελλάδα**

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Abstract

The main purpose of this dissertation is to highlight the different degrees of job satisfaction of educators working in public and private high schools in Greece. The differences in the degree of job satisfaction have as a consequence differences in the productivity of teachers in these educational sectors because they affect the school climate. The research focuses on four different types of schools, private gymnasiums and lyceums, international schools, public gymnasiums and lyceums, and public technical lyceums. The research has as its main aim to understand the different educational climates between public and private schools that affect job satisfaction. The survey took place in the sampling group of 213 educators (122 in the public and 91 in the private sector) and the most significant research findings were as follows:

- a) The educators in private schools feel 15% greater job satisfaction for Herzberg's hygiene factors (salary, human relationships, technical supervision, working conditions, management policies, status, and job security) or Maslow's basic, safety and belonging needs.
- b) The educators in private schools feel 10% greater job satisfaction for Herzberg's motivator factors (achievements, recognition, responsibility, opportunities for advancement and personal growth, and finally the work itself) or Maslow's ego-status and self-actualization needs.

The above differences in the job satisfaction of educators explain the differences in the productivity of the two sectors according to the results of PISA 2018. In addition, any differences in educational services don't offer equal opportunities for young members of society to grow and consequently will lead to social and income inequalities in the future.

The Greek government must intervene in public secondary education to help it to operate more efficiently. Some measures that can adopt are an increase in the financial fees of educators, establish of a secretary and IT support, subsidies to households to attend a private school, the establishment of public international schools, development into the hierarchy, and financial incentives for productive educators, better management for the public schools, financial support to schools according to their ranking score, enrollment to school only with educational and not geographical criteria.

Keywords: School climate, job satisfaction, secondary education teachers.

Περίληψη

Ο κύριος σκοπός της παρούσας διατριβής είναι να υπογραμμίσει τον διαφορετικό βαθμό εργασιακής ικανοποίησης των εκπαιδευτικών που εργάζονται σε δημόσια και ιδιωτικά γυμνάσια - λύκεια στην Ελλάδα. Οι διαφορές στον βαθμό εργασιακής ικανοποίησης έχουν ως συνέπεια διαφορές στην παραγωγικότητα των εκπαιδευτικών που εργάζονται σε διαφορετικούς τύπους σχολείων, προφανώς επειδή επηρεάζουν το σχολικό κλίμα. Η έρευνα επικεντρώνεται σε τέσσερις διαφορετικούς τύπους σχολείων, ιδιωτικά γυμνάσια και λύκεια, διεθνή σχολεία, δημόσια γυμνάσια και λύκεια και δημόσια τεχνικά λύκεια. Ο κύριος σκοπός της παρούσας έρευνας είναι να κατανοήσει τα διαφορετικά εκπαιδευτικά κλίματα που υπάρχουν μεταξύ των δημοσίων και ιδιωτικών σχολείων και τον βαθμό που επηρεάζουν την εργασιακή ικανοποίηση. Η έρευνα πραγματοποιήθηκε στη δειγματοληπτική ομάδα των 213 εκπαιδευτικών (122 υπηρετούν στο δημόσιο και 91 στον ιδιωτικό τομέα) και τα κύρια ευρήματα της έρευνας έχουν ως εξής:

- α) Οι εκπαιδευτικοί στα ιδιωτικά σχολεία αισθάνονται 15% μεγαλύτερη εργασιακή ικανοποίηση σε ότι αφορά τους «παράγοντες υγιεινής ή διατήρησης» του Herzberg (μισθός, ανθρώπινες σχέσεις, τεχνική υποστήριξη, συνθήκες εργασίας, πολιτικές της επιχείρησης, εργασιακή ασφάλεια) ή αλλιώς, τις «βασικές ανάγκες», τις «ανάγκες ασφάλειας» και «ανάγκες του ανήκειν» κατά τον Maslow.
- β) Οι εκπαιδευτικοί στα ιδιωτικά σχολεία αισθάνονται 10% μεγαλύτερη εργασιακή ικανοποίηση στους παράγοντες εκείνους που ο Herzberg αποκαλεί «κίνητρα» (επιτεύγματα, αναγνώριση, ευθύνη, ευκαιρίες για επαγγελματική και προσωπική ανάπτυξη και τέλος το ίδιο το αντικείμενο της εργασίας) ή αλλιώς σύμφωνα με τον Maslow, στις εγωιστικές ανάγκες ή ανάγκες αυτοπραγμάτωσης.

Οι παραπάνω διαφορές στην εργασιακή ικανοποίηση των εκπαιδευτικών εξηγούν τις διαφορές στην παραγωγικότητα των δύο κατηγοριών εκπαιδευτικών, σύμφωνα με τα αποτελέσματα του PISA 2018. Επιπλέον, τυχόν διαφορές στις εκπαιδευτικές υπηρεσίες δεν προσφέρουν ίσες ευκαιρίες στα νεαρά μέλη της κοινωνίας να αναπτυχθούν και κατά συνέπεια αυτό δύναται να οδηγήσει σε κοινωνικές και εισοδηματικές ανισότητες στο μέλλον.

Η ελληνική κυβέρνηση πρέπει να παρέμβει στη δημόσια δευτεροβάθμια εκπαίδευση για να τη βοηθήσει να λειτουργήσει πιο αποτελεσματικά. Μερικά μέτρα που μπορούν να υιοθετηθούν είναι η αύξηση των οικονομικών αμοιβών των εκπαιδευτικών στο δημόσιο τομέα, η γραμματειακή και τεχνική υποστήριξη του έργου των εκπαιδευτικών, οι επιδοτήσεις σε νοικοκυριά για φοίτηση των παιδιών τους σε ιδιωτικό σχολείο, η ίδρυση δημοσίων «διεθνών σχολείων», η ανέλιξη στην ιεραρχία και οι καλύτερες αμοιβές των πιο παραγωγικών εκπαιδευτικών, η καλύτερη Διοίκηση των δημοσίων σχολείων μέσω έμπειρων Διευθυντών, η οικονομική ενίσχυση των σχολείων σύμφωνα με τη βαθμολογία κατάταξής τους, η εγγραφή στο σχολείο μόνο με εκπαιδευτικά και όχι γεωγραφικά κριτήρια.

Λέξεις – Κλειδιά : Σχολικό κλίμα, εργασιακή ικανοποίηση, καθηγητές δευτεροβάθμιας εκπαίδευσης.

1. Introduction

Education is a merit good because creates positive externalities for third parties. If we focus on the Human Development Index (HDI) we see clearly that two of the four components of the index are related to education. The first one is the “mean years of schooling” and the other is “the expected years of schooling”. The other two variables of HDI are the “GDP per capita” and the “life expectancy”. The Greek family traditionally has as a priority the investment in the education of its young members as we can see from the HDI reports [1] because the mean year of schooling rose from 7,6 to 11,4 between the years 1990 and 2021 and the same time the expected years of schooling in our country rose from 12,4 years to 20 years. This trend explains why Greece is considered a high human development country and it takes high places in the HDI list (in the year 2021 Greece was 33rd among 191 countries) although the GDP per capita of our country dropped rapidly after the year 2009.

This is the reason why will be must of high importance for the Greek government to take measures to boost public education. The more educated the citizens of a country are the greater their contribution to national economic and social development. The existence of education inequalities will lead to greater income inequalities and social conflicts in the future. Many studies indicate that there is a positive relationship between well-being and educational attainment (Erikson and Jonsson, 1996; Goldthorpe, 2014), and at the same time, individuals who take better education often live a healthier life (Jungbauer-Gans and Gross, 2009; Sander, 1995; Wolfe and Zuvekas, 1997). Also, the risks of unemployment and bad-quality careers reduce for highly educated persons (Hausner et al., 2015; Schmillen and Stüber, 2014).

So, any government must offer many opportunities to young people to cultivate their talents and personality characteristics if we want to live in the future in a social environment with prosperity, social peace, and justice.

2. Statement of the problem

One of the most significant problems that Greek secondary education faces are the different quality educational services that the students receive from the different types of schools. In the urban areas of Greece where the vast majority of private schools are located, there is a trend of an increasing number of students that attend private schools. According to the national statistical bureau of Greece (“Greece in figures – Elstat” [2]), between the years 2016 and 2020, the number of students at private gymnasium-lyceums rose from 14.843 to 15.827, or a percentage of 6,6%. At the same time, the number of students in secondary education rose from 298.287 to 304.995 or as a percentage by 2,2%. This fact will be explained if we examine many factors, such as:

- a. Dissatisfying with the educational services of public schools. According to the Greek official statistical bureau (Elstat: Greece in numbers / July – September 2022), the portion of students per teacher in the public gymnasium-lyceums was equal to 8,2 in the year 2020. In contrast, the respective index in the private gymnasium-lyceums was 6,8 students per teacher. It is logical to support that there is an inverse relationship between the volume of students and educational efficiency because the more students per teacher the lower the control and the quality of the teaching.

- b. The technological gap between the private and public sectors [3]. According to the findings of the general confederation of Greek workers (GSEE) research, was found disparities in access to distance education between public and private school students.
- c. Every year, there are many lost lesson hours in public gymnasiums and lyceums due to strikes and school occupations. For example, in January 2021 more than 160 schools across the country were in occupation [4] of students. This phenomenon does not exist in the respective private sector.
- d. Possible changes in the balance between the number of immigrant and domestic students. The synthesis of student population varies between private and public schools. According to Elstat [5], in the period between the years 2009 – 2020, the balance of births and deaths is positive by 150.000 persons for the immigrants and negative for Greeks by 402.000 persons. If we take into consideration that the average income of immigrants is 28% lower than the average income of the native-born ones (OECD, indicators of integration 2012), then we conclude that the synthesis of the class at private and public schools becomes more and more different because immigrants have lower purchasing power and consequently it is difficult for them to send their children to the private gymnasium – lyceums.
- e. The ability of the students to take the international baccalaureate diploma from 15 schools [6] in Greece. Despite the economic recession in the country after the year 2009 and the pandemic period, the International Baccalaureate (IB) diploma program became more and more popular. More specifically, there is an increase in the number of IB students from 436 students in the year 2006 to 736 students in the year 2021. The rapid changes in the modern global labor market demand that new employees work with colleagues who have different cultural backgrounds and skills and at the same time work effectively with artificial intelligence (Mila Lazarova, Paula Caligiuri, David G. Collings, Helen De Cieri, 2022). These changes give a comparative advantage to private schools, especially international ones.
- f. The different levels of support that many private schools offer to their teachers to develop their skills, knowledge, and technological facilities to support their teaching, Also, private schools are more careful about the cleanliness of the areas of the school to attract more customers. The factors above may give a comparative advantage to the private educational sector.

For the reasons above, it is possible the teachers at private gymnasiums and lyceums to face a different degree of job satisfaction in comparison with their colleagues at public schools. Thus, the main purpose of the dissertation is to examine through primary research the differences in the degree of satisficing from the work environment between teachers in Greek Public and Private secondary education.

Any differences in the quality of educational services are a possible threat to the future cohesion of our country and at the same time a challenge for the politicians to predict and solve the problem before it expands more. This is the reason why this dissertation will try to highlight the problem of different quality educational services and secondly suggest possible solutions.

3. Research objectives

The research objectives of the current dissertation are the followings:

- a) To explore any differences in the work environment of teachers at the different groups of schools, public and private Greek gymnasiums, public and private general lyceums, public technical lyceums, and finally International Baccalaureate private schools.
- b) To measure how any differences in the work environment of the teachers affect their job satisfaction.
- c) To study if the differences in job satisfaction led to differences in the productivity of the teachers.

The thesis is organized as follows:

Initially, it presents the relevant theory regarding job satisfaction. Secondly, it presents the methodology of the primary research, in the third part discusses the findings of the research. The fourth part presents the thesis of the dissertation and finally presented the conclusions.

4. The theoretical model

Job satisfaction is one of the most complex issues that a Human Resource (HR) manager can take into consideration to improve the performance of the employees. The concept of HR management occurred initially in the decade of 80s and grew rapidly in the decade of '90s. "Human Resource management is the management function responsible for acquiring, training, appraising and compensating employees" (A. Mihiotis, 2005, Management of People and Organizations, Volume 1, page 63). Especially in our days where the tertiary and quaternary sectors are the major sectors of production in developed countries, HR management becomes more and more important because it helps the employees to feel more satisfied with their work environment. The more satisficing is a person from his work environment the greater his performance and vice versa. So, job satisfaction is a crucial factor for the competitiveness and long-run existence of the firm or organization in the market.

Many theories and definitions have developed to explain the phenomenon of job satisfaction. Independently of the theoretical framework that someone chooses to study job satisfaction, most of the researchers have identified two groups of significant factors that influence the degree of job satisfice: the first one is the personal characteristics of the individual the second one is the work environment.

In the current paper, I focus on two of the most well-known job satisfaction theories. The first one is Maslow's Needs Hierarchy Theory, and the second one is Herzberg's Motivator-Hygiene Theory. These theories tried successfully to explain what motivates workers to be more productive and offer a comprehensive classification of the factors which contribute to job satisfaction or dissatisfaction. The reason that I choose these theories is that there are many attempts in the past years from many foreign researchers ("An application of Herzberg's motivator-hygiene theory to teacher job satisfaction", Elizabeth Strachan / Canada / 1975, "Herzberg's Motivation- Hygiene Theory Applied to High School Teachers in Turkey", Hilmi Atalıç, Ali Can, Nihal Cantürk / April 2016) to connect the above theories with educators' job satisfaction. But in Greece, as I can know, there is no attempt from any researcher to connect the above theories with job satisfice in Greek secondary education.

Some useful definitions of the term “job satisfaction” are the following. According to American Psychologist Edwin A. Locke (1976), job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". The well-known professor at the Yale School of Management, Victor Vroom (1964) defines as job satisfaction the positive feedback on the part of individuals toward work roles which they are presently occupying.

It is of high importance to highlight that the term “job satisfaction” is not identical to the term “motivation”. Motivation is the process that leads to job satisfaction.

4.1 Maslow’s needs hierarchy theory.

One of the most well-known available theoretical frameworks to explore the possible differences between the incentives that educators have in the different secondary educational environments is the "Theory of Human Motivation" of Maslow (1943). According to Maslow’s perspective, human behavior is a result of the individual attempts to cover his different types of needs. More specifically, the theory that Maslow developed focuses on five different stages of goals that any individual set-in order to cover his needs. This means that any time our attempt to cover our needs gives to us an incentive for action.

These five hierarchy types of needs begin with the basic or physiological needs (e.g., shelter, warmth, food, drink, clothing, sleep, sex), continue with the safety needs (e.g., medical care, property, insurance services, school for the children), escalate to belonging needs (e.g., friendship, acceptance, receiving and giving love), accordingly rises to the fourth stage that is called ego-status or esteem needs (e.g., achievement, dignity, independence, reputation, respect, prestige) and finally rises to actualization needs. This final stage is difficult for anyone to be achieved because it refers to self-fulfillment. In other words, the person we examine touches his potential. It is characteristic of the phrase of Maslow that says that the person in this final stage "become the most that one can be". Graphically, the hierarchy of needs can be described by the following pyramid.

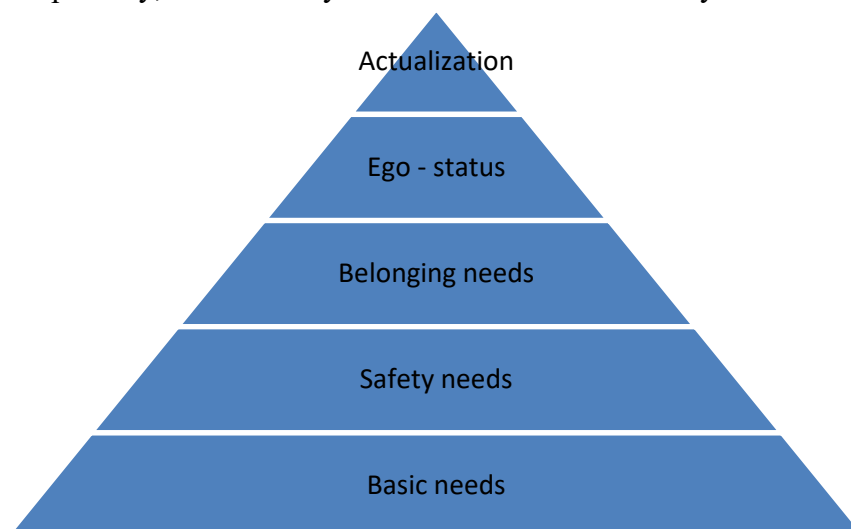


Figure 1- The pyramid of needs according to Maslow.

The research of Brian Noad (1979, Educational Review, vol. 31, pp. 56 - 57) indicated that the more pleasant the working conditions in schools are, the less the physical discomforts of teaching. This factor is related to the "basic needs" that educators attempt to cover. Accordingly, the lesson plans and the adherence to school rules, are related to safety needs. Participation in scientific teams, such as scientific journals, scientific boards, and educators' unions, and participation in Erasmus programs, cover the belonging needs of educators. Finally, teaching achievements (editing of coursebooks, prizes in national and international school competitions, presentations at scientific symposiums, etc.), and attending educational seminars or postgraduate programs are opportunities for growth and cover the ego status and self-actualization needs of teachers in secondary education.

4.2 Herzberg's Motivator-Hygiene Theory.

Frederick Herzberg developed in the year 1959 the "two-factors motivation theory" to describe the factors that contribute to job satisfaction through an investigation into a sample of 203 engineers and accountants in the Pittsburgh area. The investigators (Frederick Herzberg, Bernard Mausner, and Barbara Snyderman) observe fourteen factors that lead to strong feelings of satisfaction or dissatisfaction. Herzberg classified these factors into two different groups: the factors which affect job satisfaction and improve the performance of the worker (motivator factors) and the factors which prevent the occurrence of job dissatisfaction, and they are centered around the work environment (hygiene factors), as we can see in the following table.



Figure 2 - The factors that contribute to satisfaction and prevent dissatisfaction in the work environment, according to Herzberg (1959).

Elizabeth Strachan's research (1975, An application of Herzberg's Motivator - Hygiene Theory to teacher job satisfaction page 72,) reported that "Herzberg's hypotheses regarding the main effect of motivators on satisfaction and hygiene factors on dissatisfaction can be applied successfully to teachers".

5. Methodology

A descriptive survey was designed to study the degree of job satisfaction of Greek educators in secondary education. More specifically, the survey examines 213 educators (96 men and 117 women) who work in four different types of Schools: public general gymnasiums – lyceums (94 responses), private general gymnasiums lyceums (79 responses), public technical gymnasiums – lyceums (28 responses) and finally, international schools (12 responses).

For data collection purposes, created a web questionnaire with 21 questions through the platform “Google Forms”. The structure of the questionnaire is designed as follows. The first four questions gave information about the gender, the experience, the type of school, and the working relationship between educator and school (substitute or indefinite work contract).

Low and medium-experienced workers are characterized the educators with less than 10 years of teaching in school, highly-experienced workers are characterized the educators with 11 - 20 years of teaching, and very highly-experienced workers are characterized the educators with above than 20 years of teaching experience in school. Also, it is significant to highlight the differences in the level of job satisfaction between educators that works with indefinite contract and teachers who work with substitute contract. Logically, the more flexible the working relationship the higher the degree of uncertainty for any employee.

The following 11 questions have as a main purpose to examine Herzberg's hygiene factors or Maslow's factors of basic – safety and belonging needs in the sector of Greek education. The table below represents the questions and the research purpose:

Table 1 - The first part of the questionnaire is based on Herzberg's hygiene factors and Maslow's basic, safety and belonging needs.

| Question | Herzberg's hygiene factor | Maslow's factor |
|--|--|------------------------|
| 1. To what extent do you feel satisfied with your financial fees (salary, high productivity bonus, etc.)? | Salary | Basic needs |
| 2. To what extent are you satisfied with the physical capital working conditions at your school (building infrastructure, the office you work in, cleanliness, technological access)? | Working conditions & technological supervision | Basic needs |
| 3. To what extent are you satisfied with the policies that your school applies to the disciplinary control of students? | Policy and administration | Safety needs |
| 4. To what extent are you satisfied with the policies your school implements in communicating with students' parents? | Policy and administration | Safety needs |
| 5. To what extent are you satisfied with the workplace policies that your school applies concerning working hours, overtime, leaves of absence from work, school excursions, or extracurricular activities? | Working conditions | Basic needs |
| 6. To what extent are you satisfied with the employment policies that your school applies in terms of benefits (e.g., private insurance contracts, extra benefits in kind or cash, special discounts for employees in partner companies, benefits for employees' children, excursions, and social | Policy and administration & personnel life | Safety needs |

| | | |
|---|--|-----------------|
| events for employees, etc.) | | |
| 7. To what extent do you feel satisfied with your relationship with your colleagues? | Relationships with colleagues and subordinates | Belonging needs |
| 8. To what extent do you feel that the work at your school contributes positively to your status? | Status | Ego - status |
| 9. To what extent do you feel that the Management of your school takes into account your feedback and your recommendations? | Relationship with supervisor | Belonging needs |
| 10. How confident do you feel that shortly (e.g., 2 years from now) you will still be working at the same school you are currently working at? | Job security | Safety needs |
| 11. How confident do you feel that in the long term (e.g., 6 years from now) you will still be working at the same school you are currently working at? | Job security | Safety needs |

Accordingly, the final 6 questions (12 – 17) are an attempt to extract conclusions about Herzberg's motivator factors or Maslow's factors of ego-status and self-actualization needs of Greek educators. The table below represents the questions and the research purpose, respectively:

Table 2 - The second part of the questionnaire is based on Herzberg's motivators and Maslow's Ego-status and Self-actualization needs.

| Question | Herzberg's motivator | Maslow's factor |
|---|---|------------------------|
| 12. To what extent do you feel that the Management of your school recognizes the efforts you make? | Recognition | Ego - status |
| 13. To what extent do you feel that your school offer to you the support to succeed in significant achievements in your work? | Achievements and personal growth | Self - actualization |
| 14. To what extent do you feel that your school offers you the opportunity to grow as an educator and personality? | Personal growth | Self - actualization |
| 15. To what extent do you feel that your school offers you the freedom to apply your appropriate educational practices? | Responsibility and personal growth | Self - actualization |
| 16. To what extent do you feel that your school offers you the opportunity to grow in the hierarchy? | Opportunities for advancement and personal growth | Ego - status |
| 17. To what extent do you feel satisfied with the subject of the teacher's work? | The work itself | Self - actualization |

6. Findings

According to the present study, the most significant findings are the following:

- a) Educators in the private sector feel a higher degree of job satisfaction in comparison with their colleagues in the public sector. One significant limitation of this result is that the research in the private sector took place among 91 educators the majority work at well-known private schools in Athens. This sample may be not representative because there is a large amount of small private gymnasiums and lyceums around the country that may have different work environments. On the other hand, the sample of 122 educators in the public sector is representative because they work around the country (from Rhode Island to Komotini). Also, the composition of the sample does not follow the real composition between public and private educators. In Greece, the synthesis of educators is 94 – 6 between the public and private sectors. In contrast, the synthesis of the sample is 57 – 43 respectively.
- b) Half of the sample of educators in the private sector are feeling high (46%) and very high (4%) satisfied with their salaries (overall 50%) / figure 1. In contrast, only 2% of the educators in the public sector are feeling high satisfaction from their financial fees. It is worth mentioning that many educators in the private sector, especially the old ones, continue to receive the 13th and 14th salaries. In the public sector, after the imposition of memorandums from the foreign owners of the Greek debt, there is an abolishment of these types of benefits.
- c) A portion of 3 to 4 educators in the private gymnasium-lyceums are feeling high (33%) and very high (42%) satisfied with the infrastructure and the facilities of their schools (overall 75%) / figure 2. On the other hand, 1 out of 5 educators in the public sector are feeling satisfaction from the physical capital of their work environment (18% are feeling high and 4% are very highly satisfied overall, a percentage of 22%). One crucial factor that contributes to the above differences is that private schools, especially the bigger ones, have a secretary and IT support.
- d) In addition, the educators in private secondary schools may receive extra benefits such as discounts on the tuition fees for their children, extra private insurance contracts, discounts for their mobile phone contracts, vouchers for supermarkets, celebrating events, etc. As a result, 45% of the educators in the private sector feel high (30%) and very high (15%) satisfaction from the extra benefits they receive / figure 6. In contrast, their colleagues in public schools can't face these extra personnel benefits (the respective percentage of satisfaction is only 2%).
- e) Three to four educators (76%) in the private sector feel that their school contributes positively (42%) and very positively (34%) to their status. Respectively, a percentage of 40% in the public secondary sector believe that their school contributes positively (32%) and very positively (8%) to their status/figure 8.
- f) The educators in the public sector feel higher levels of uncertainty about the school that will teach in the short-term and long-term period/figures 10 & 11. Many changes take place in public education every year, such as demographic changes, changes in the official curriculum, and political changes. This means that some lessons are abolished from the formal education program (e.g., sociology), and some schools are combined due to a decrease in the number of students or political decisions. This leads to a high level of uncertainty for public secondary educators because one out of two (48% as a percentage) feel confident about their future at the same school in the next two years. In contrast, three out of four educators (76%) believe that in

- the next two years will continue to teach at the current school. In the long-term (e.g., 6 years from now), one out of the three professors in the public gymnasium-lyceums (35%) feel confident that he/her continue to teach at the current school, instead of a percentage of 62% of their colleagues in the private sector.
- g) Two out of three educators (66%) in the private gymnasium-lyceums believe that their school had supported them to a high degree (38%) and very high degree (28%) to succeed in significant achievements in their work/figure 13. On the other hand, about only one out of three (37% overall) public educators state that their school helps them to accomplish significant achievement in their work.
 - h) Significant differences occur in the opportunities that the school offer for professional and personal growth. Two out of three educators in the private sector (or a percentage of 66%) feel that their school gives them high (34%) and very high (32%) opportunities to grow themselves. But in the public sector, the respective response was close to one out of three educators (27% and 9% or an overall of 36% of educators) / figure 14.
 - i) Maybe the most valuable finding of this research is the differences in the degree of satisficing between the two groups from the work itself. Four out of five educators (81%) in the private gymnasium-lyceums feel high (35%) and very high (46%) satisfied with the work of professors in secondary education. Respectively, three out of five educators (61%) in the public sector feel high (31%) and very high (30%) satisfied with the job of a professor/figure 17. This result indicates that educators at public schools feel less satisfied with many working factors in comparison with their colleagues in the private sector.
 - j) Private schools prefer to employ low and medium-experienced educators. These findings indicate that the private school due to the flexibility of working law, prefer to collaborate with younger teachers for many reasons (e.g., low working cost, young teachers have a lower age gap with the students, younger teachers have higher incentives to be more productive and they avoid disagreements with the management of the school). Also, the percentage of men educators in the private sector is greater than women. One explanation for this fact may be that female workers require more days of maternity leave from work due to pregnancy or child-rearing. The table below represents these interesting findings.

Table 3 - Differences between different types of educators in public and private secondary education in Greece.

| Type of employee | Public gymnasium & lyceums | Private gymnasium & lyceums |
|---------------------------------|----------------------------|-----------------------------|
| Women | 68% | 64% |
| Men | 32% | 36% |
| Low experience (1-10 years) | 16% | 33% |
| Medium experience (11-20 years) | 38% | 35% |
| High experience (21-30 years) | 46% | 32% |

7. Measuring job satisfaction

To measure job satisfaction, the current research is split into two different segments. The first one had been designed to examine the factors that contribute to a hygienic work environment according to Herzberg's theory or cover the basic, safety and belongings needs of Maslow's theory, respectively. The second one had been designed to measure the motivators of Herzberg's theory or the ego-status and self-actualization needs of Maslow respectively. It is of high importance to highlight the following quality characteristics of the study:

- a) The questionnaire was answered by 213 educators the majority were women. More specifically, 55% of the sample (117 persons) was women and 45% (96 persons) was men. It is worth mentioning that the volume of educators in Greece in the year 2020 according to the Hellenic statistical bureau (ELSTAT) was as follows.

Table 4-the volume of educators in Greek public and private secondary education.

| | Volume | Percentage |
|-----------------------------------|---------------|----------------------------------|
| Women (Public Schools) | 25.422 | $\frac{25.422}{37.196} = 68,3\%$ |
| Men (Public Schools) | 11.774 | $\frac{11.774}{37.196} = 31,7\%$ |
| Total (Public Schools) | 37.196 | $\frac{37.196}{39.524} = 94,1\%$ |
| Women (Private Schools) | 1.499 | $\frac{1.499}{2.328} = 64,4\%$ |
| Men (Private Schools) | 829 | $\frac{829}{2.328} = 35,6\%$ |
| Total educators (Private Schools) | 2.328 | $\frac{2.328}{39.524} = 5,9\%$ |
| Women educators (Total) | 26.921 | $\frac{26.921}{39.524} = 68,1\%$ |
| Men educators (Total) | 12.603 | $\frac{12.603}{39.524} = 31,9\%$ |
| Total Educators | 39.524 | 100% |

- b) A percentage of 57% of the sample of 213 educators was from the public sector (94 persons in general gymnasium-lyceums and 28 persons in technical schools) and 43% of the sample was from the private sector (79 persons in general gymnasium-lyceums and 12 persons in international schools).

c) The vast majority of the sample (92% or 195 out of 213 educators) has an open-ended contract and the rest 8% or 18 educators work as substitutes.

d) The majority of the educators who answered the questionnaire in the public gymnasium and lyceum were very experienced (56 persons or 46% of the sample) because they teach over 20 years. A percentage of 38% (or 47 persons) were medium experienced because they teach between 11 – 20 years and 16% of the sample or 19 persons teach below 10 years.

e) In the private sector, the vast majority of the sample belongs to medium experienced educators because they teach between 11 – 20 years (32 persons or the equivalent of 35% of the sample). The second bigger sample (30 persons or 33% as a percentage) was the low experienced educators who teach below 10 years and the rest of the 32% or 29 educators of the sample of 91 persons teach over 20 years in the private gymnasium – lyceum.

7.1 Research Questions 1 and 11: Hygiene factors (Herzberg) or Basic, safety, and belonging needs (Maslow).

To examine significant statistical conclusions for the behaviour of the two different groups of educators, I calculate the mean, the median, the standard deviation (S.D), and the Mann–Whitney U test for every single question which refers to Herzberg’s hygiene factors or Maslow’s basic, safety and belonging needs between the public and private sectors.

Table 5 - The statistical results of the 1st question.

| | |
|-------------------------|--|
| Question 1 | To what extent do you feel satisfied with your financial fees (salary, high productivity bonus, etc.)? |
| Mean (public) | 2,00 |
| Mean (private) | 3,40 |
| Median (public) | 1 |
| Median (private) | 4 |
| St. Deviation (public) | 0,80 |
| St. Deviation (private) | 0,81 |
| Mann–Whitney U value | 1.457 |
| Z - score | -11.52383. The p-value is < .00001. The result is significant at $p < .05$. |

Table 6 - The statistical results of the 2nd question.

| | |
|-------------------------|--|
| Question 2 | To what extent are you satisfied with the physical capital working conditions at your school (building infrastructure, the office you work in, cleanliness, technological access)? |
| Mean (public) | 2,73 |
| Mean (private) | 4,09 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,00 |
| St. Deviation (private) | 0,95 |
| Mann–Whitney U value | 1.977,5 |
| Z - score | -8.10368. The p-value is < .00001. The result is significant at $p < .05$. |

Table 7 - The statistical results of the 3rd question.

| | |
|-------------------------|--|
| Question 3 | To what extent are you satisfied with the policies that your school applies to the disciplinary control of students? |
| Mean (public) | 3,22 |
| Mean (private) | 3,76 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 0,98 |
| St. Deviation (private) | 0,90 |
| Mann–Whitney U value | 3.940 |
| Z - score | -3.61946. The p-value is .0003. The result is significant at $p < .05$. |

Table 8 - The statistical results of the 4th question.

| | |
|-------------------------|--|
| Question 4 | To what extent are you satisfied with the policies your school implements in communicating with students' parents? |
| Mean (public) | 3,53 |
| Mean (private) | 3,91 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 1,01 |
| St. Deviation (private) | 0,94 |
| Mann–Whitney U value | 4.425 |
| Z - score | -2.64585. The p-value is .00804. The result is significant at $p < .05$. |

Table 9 - The statistical results of the 5th question.

| | |
|-------------------------|--|
| Question 5 | To what extent are you satisfied with the workplace policies that your school applies concerning working hours, overtime, leaves of absence from work, school excursions, or extracurricular activities? |
| Mean (public) | 3,65 |
| Mean (private) | 3,70 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 0,98 |
| St. Deviation (private) | 0,94 |
| Mann–Whitney U value | 5.472,5 |
| Z - score | -0.1753. The p-value is .85716. The result is not significant at $p < .05$. |

Table 10 - The statistical results of the 6th question.

| | |
|-------------------------|--|
| Question 6 | To what extent are you satisfied with the employment policies that your school applies in terms of benefits (e.g., private insurance contracts, extra benefits in kind or cash, special discounts for employees in partner companies, benefits for employees' children, excursions, and social events for employees, etc.) |
| Mean (public) | 1,69 |
| Mean (private) | 3,26 |
| Median (public) | 1 |
| Median (private) | 3 |
| St. Deviation (public) | 0,87 |
| St. Deviation (private) | 1,16 |
| Mann–Whitney U value | 1.707,5 |
| Z - score | -9.03496. The p-value is < .00001. The result is significant at $p < .05$. |

Table 11 - The statistical results of the 7th question.

| | |
|-------------------------|---|
| Question 7 | To what extent do you feel satisfied with your relationship with your colleagues? |
| Mean (public) | 3,76 |
| Mean (private) | 4,16 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 0,84 |
| St. Deviation (private) | 0,76 |
| Mann–Whitney U value | 4.129,5 |
| Z - score | -3.88912. The p-value is .0001. The result is significant at $p < .05$. |

Table 12 - The statistical results of the 8th question.

| | |
|-------------------------|--|
| Question 8 | To what extent do you feel that the work at your school contributes positively to your status? |
| Mean (public) | 3,17 |
| Mean (private) | 4,04 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,05 |
| St. Deviation (private) | 0,87 |
| Mann–Whitney U value | 3.006,5 |
| Z - score | -6.27507. The p-value is < .00001. The result is significant at $p < .05$. |

Table 13 - The statistical results of the 9th question.

| | |
|-------------------------|--|
| Question 9 | To what extent do you feel that the Management of your school takes into account your feedback and your recommendations? |
| Mean (public) | 3,57 |
| Mean (private) | 3,59 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 1,18 |
| St. Deviation (private) | 1,10 |
| Mann–Whitney U value | 5.551 |
| Z - score | -0.86897. The p-value is .3843. The result is not significant at $p < .05$. |

Table 14 - The statistical results of the 10th question.

| | |
|-------------------------|--|
| Question 10 | How confident do you feel that shortly (e.g., 2 years from now) you will still be working at the same school you are currently working at? |
| Mean (public) | 3,26 |
| Mean (private) | 4,08 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,40 |
| St. Deviation (private) | 0,95 |
| Mann–Whitney U value | 3.749,5 |
| Z - score | -4.69648. The p-value is < .00001. The result is significant at $p < .05$. |

Table 15 - The statistical results of the 11th question.

| | |
|-------------------------|---|
| Question 11 | How confident do you feel that in the long term (e.g., 6 years from now) you will still be working at the same school you are currently working at? |
| Mean (public) | 2,82 |
| Mean (private) | 3,75 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,45 |
| St. Deviation (private) | 0,95 |
| Mann–Whitney U value | 3.499,5 |
| Z - score | -5.22763. The p-value is < .00001. The result is significant at $p < .05$. |

| # | Mean (Public) | Mean (Private) | Median (Public) | Median (Private) | S.D (Public) | S.D (Private) | U value | P value |
|-----|---------------------------|---------------------------|-----------------|------------------|---------------------------|---------------------------|---------|---------|
| 1. | 2,00 | 3,40 | 1 | 4 | 0,80 | 0,81 | 1.457 | 0,00001 |
| 2. | 2,73 | 4,09 | 3 | 4 | 1,00 | 0,95 | 1.977 | 0,00001 |
| 3. | 3,22 | 3,76 | 3 | 4 | 0,98 | 0,90 | 3.940 | 0,0003 |
| 4. | 3,54 | 3,91 | 4 | 4 | 1,00 | 0,94 | 4.425 | 0,00804 |
| 5. | 3,65 | 3,70 | 4 | 4 | 0,98 | 0,94 | 5.472 | 0,85716 |
| 6. | 1,69 | 3,26 | 1 | 3 | 0,87 | 1,16 | 1.707 | 0,00001 |
| 7. | 3,76 | 4,16 | 4 | 4 | 0,84 | 0,76 | 4.129 | 0,0001 |
| 8. | 3,17 | 4,04 | 3 | 4 | 1,05 | 0,87 | 3.006 | 0,00001 |
| 9. | 3,57 | 3,59 | 4 | 4 | 1,18 | 1,10 | 5.551 | 0,3843 |
| 10. | 3,26 | 4,08 | 3 | 4 | 1,40 | 0,95 | 3.749 | 0,00001 |
| 11. | 2,82 | 3,75 | 3 | 4 | 1,45 | 0,95 | 3.499 | 0,00001 |
| | 33,41/55 ≈ 60% | 41,74/55 ≈ 76% | | | average = 1,05 | average = 0,94 | | |

Table 16 – The statistical results for the 1st part of the questionnaire.

To conclude, the educators in the public sector feel that the work environment covers their basic, safety and belonging needs by 60% (achieving a score of 33,41/55 \approx 60%) instead of 76% of their colleagues in the private sector (achieving a score 41,74/55 \approx 76%). Additionally, the results of question 5 “to what extent are you satisfied with the workplace policies that your school applies concerning working hours, overtime, leaves of absence from work, school excursions, or extracurricular activities?” and question 9 “to what extent do you feel that the Management of your school takes into account your feedback and your recommendations?” are not significant at $p < 0,5$. For this reason, are shaded with gray color. Finally, the variability around the mean is closer for the private sector because the average value of the standard deviation is $0,94 < 1,05$ which is the score for the public sector.

7.2 Research Questions 12 and 17: Motivators (Herzberg) or ego-status and self-actualization needs (Maslow).

The analysis below represents the mean, the median, the standard deviation (S.D), and the Mann – Whitney U value for every single question which refers to Herzberg’s motivators or Maslow's ego status and self-actualization needs between the public and private sector.

Table 17 - The statistical results of the 12th question.

| | |
|------------------|--|
| Question 12 | To what extent do you feel that the Management of your school recognizes the efforts you make? |
| Mean (public) | 3,71 |
| Mean (private) | 3,82 |
| Median (public) | 4 |
| Median (private) | 4 |

| | |
|-------------------------|--|
| St. Deviation (public) | 1,02 |
| St. Deviation (private) | 0,91 |
| Mann–Whitney U value | 5.244,5 |
| Z - score | -1.52017. The p-value is .12852. The result is not significant at $p < .05$. |

Table 18 - The statistical results of the 13th question.

| | |
|-------------------------|---|
| Question 13 | To what extent do you feel that your school offer to you the support to succeed in significant achievements in your work? |
| Mean (public) | 3,12 |
| Mean (private) | 3,81 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,02 |
| St. Deviation (private) | 1,00 |
| Mann–Whitney U value | 3.503 |
| Z - score | -5.2202. The p-value is $< .00001$. The result is significant at $p < .05$. |

Table 19 - The statistical results of the 14th question.

| | |
|-------------------------|--|
| Question 14 | To what extent do you feel that your school offers you the opportunity to grow as an educator and personality? |
| Mean (public) | 3,16 |
| Mean (private) | 3,90 |
| Median (public) | 3 |
| Median (private) | 4 |
| St. Deviation (public) | 1,04 |
| St. Deviation (private) | 0,96 |

| | |
|----------------------|---|
| Mann–Whitney U value | 3.399 |
| Z - score | -5.44116. The p-value is < .00001. The result is significant at $p < .05$. |

Table 20 - The statistical results of the 20th question.

| | |
|-------------------------|---|
| Question 15 | To what extent do you feel that your school offers you the freedom to apply your appropriate educational practices? |
| Mean (public) | 3,68 |
| Mean (private) | 3,97 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 1,12 |
| St. Deviation (private) | 1,02 |
| Mann–Whitney U value | 4.745 |
| Z - score | -2.58142. The p-value is .00988. The result is significant at $p < .05$. |

Table 21 - The statistical results of the 16th question.

| | |
|-------------------------|--|
| Question 16 | To what extent do you feel that your school offers you the opportunity to grow in the hierarchy? |
| Mean (public) | 2,91 |
| Mean (private) | 3,16 |
| Median (public) | 3 |
| Median (private) | 3 |
| St. Deviation (public) | 1,10 |
| St. Deviation (private) | 1,18 |
| Mann–Whitney U value | 4.887,5 |
| Z - score | -2.27866. The p-value is .0226. The result is significant at $p < .05$. |

Table 22 - The statistical results of the 17th question.

| | |
|-------------------------|--|
| Question 17 | To what extent do you feel satisfied with the subject of the teacher's work? |
| Mean (public) | 3,80 |
| Mean (private) | 4,22 |
| Median (public) | 4 |
| Median (private) | 4 |
| St. Deviation (public) | 1,04 |
| St. Deviation (private) | 0,84 |
| Mann–Whitney U value | 4.318 |
| Z - score | -3.48863. The p-value is .00048. The result is significant at $p < .05$. |

Table 23 - The mean, median, and standard deviation for the second part of the questionnaire.

| # | Mean (Public) | Mean (Private) | Median (Public) | Median (Private) | S.D (Public) | S.D (Private) | U value | P value |
|-----|---------------------------|---------------------------|-----------------|------------------|--------------|---------------|---------|---------|
| 12. | 3,71 | 3,82 | 4 | 4 | 1,02 | 0,91 | 5.244,5 | 0,12852 |
| 13. | 3,12 | 3,81 | 3 | 4 | 1,02 | 1,00 | 3.503 | 0,00001 |
| 14. | 3,16 | 3,90 | 3 | 4 | 1,04 | 0,96 | 3.399 | 0,00001 |
| 15. | 3,68 | 3,97 | 4 | 4 | 1,12 | 1,02 | 4.745 | 0,00988 |
| 16. | 2,91 | 3,16 | 3 | 3 | 1,10 | 1,18 | 4.887,5 | 0,0226 |
| 17. | 3,80 | 4,22 | 4 | 4 | 1,04 | 0,84 | 4.318 | 0,00048 |
| | 20,38/30 = 68% | 22,88/30 ≈ 76% | | | 1,06 | 0,99 | | |

All in all, the degree of motivation is about 8% greater in the private instead of the public sector. More specifically, the educators in the private sector accomplish Herzberg's motivator factors or Maslow's ego-status and self-actualization need by 76,3% (achieve a score of 22,88/30 = 76,3%) instead of 67,9% (achieve a score of 20,38/30 = 67,9%) of their colleagues in the public sector. The only question that the result is not significant for $p < 0,05$ was the 12th which asked, “to what extent do you feel that the Management of your school recognizes the efforts you make?” Also, the degree of variation around the mean of the answers is slightly lower in the private sector in comparison with the public one. If we measure the total job satisfaction (Hygiene factors and motivators), we conclude that the summation of job satisfaction for private educators equals 76% (64,62/85) and for public educators equals 63,3% (53,79/85).

8. Differences in the learning outcomes

The differences in the degree of job satisfice between educators in private and public secondary education lead to different educational backgrounds and opportunities for different types of households (e.g., families with economical or geographical disadvantages) as we can see in the results of PISA 2018. According to PISA 2018 [7], in the three core domains (language, math, and science skills), the average performance of Greek students in public-school students is lower than the corresponding OECD averages. In contrast, Greek private school students achieved in the three categories higher scores than the OECD private schools average and of course of their peers in public scores. The differences in the performance of private and public-school students are among the largest in the organization's member countries. Specifically:

Table 24 – The students in private schools achieve better scores in comparison with their peers in public schools.

| | OECD public schools' average | Greece public schools' average | OECD private schools' average | Greece public schools' average |
|-------------|------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Reading | 482 | 454 | 510 | 528 |
| Mathematics | 485 | 448 | 512 | 516 |
| Science | 485 | 448 | 511 | 512 |

In addition, according to OECD [8] the report, the difference between the children who succeed at least the PISA level 2 in reading (in the year 2018) and belong to the lowest and highest quartile of the ESCS index (ESCS is the acronym of the words: economic, social & cultural status) was 37%. In other words, the difference between the bottom 1st quartile and the top 4th quartile of ESCS is very high as we take into consideration that the OECD average equals 29%, respectively.

Another example of different learning outcomes is the study of the School of Mechanical Engineering at the National Technical University of Athens (Dimitrios Vasilakis, July 2020) which indicates that students from private schools take their diploma with a higher degree and at a shorter time. More specifically, the students from private schools achieve better educational results in comparison to their peers not only in public schools but also to their peers of public model schools. This fact indicates that the graduates of private schools have greater educational backgrounds than others. It is worth mentioning that for a student to enroll in the department of the School of Mechanical Engineering at the National Technical University of Athens, have to achieve a score upper to 18/20 in the national exams.

Table 25 - the graduates of private schools take their diploma from the School of Mechanical Engineering at the National Technical University of Athens with a higher score and shorter time.

| Type of school | Degree of diploma (average) | Years of studies (average) |
|----------------------|-----------------------------|----------------------------|
| Public lyceums | 7,28 | 6,34 |
| Public model lyceums | 7,31 | 6,26 |
| Private lyceums | 7,41 | 6,10 |

One more paradigm of different learning outcomes between public and private schools is in the report of the Hellenic Economics Olympiad (Konstantinos Saravakos, 2022) [9]. The Economics Olympiad is a national competition that refers to economic science and it is held in three national rounds and one international. In the first year (2021) took part 1.105 students and in the second year (2022) took part 2.353 students around the country. The first round is organized at the level of the school unit by the responsible teacher with the support of the Economics Olympiad team. The competition is held online and has the main purpose to understand the level of economic knowledge of the participants. For this reason, the first round does not require special preparation time. The second round is organized at the regional level with the physical presence of the participants. The third round is the national final competition which takes part 50 students with the higher score in the second round. In this round, it created the national team of economics which consisted of the 5 students with the highest score in the final competition. The table below represents the average scores of public and private school participants at every round for the years 2021 and 2022.

Table 26 - The average score of students in public and private schools at the Hellenic Economics Olympiad in the years 2021 & 2022.

| | Public schools (2021) | Private schools (2021) | Public schools (2022) | Private schools (2022) |
|-----------------------|--------------------------|---------------------------|--------------------------|---------------------------|
| 1 st round | 48,5/100 | 53,6/100 | 53,4/100 | 59,4/100 |
| 2 nd round | 46,7/100 | 52,1/100 | 39,7/100 | 43,7/100 |
| 3 rd round | 42,6/100 | 46,5/100 | 42,9/100 | 62,8/100 |

As we can see from table 9, the performance of the students who attended private school is better in every round, every year in the national competition of the Hellenic Economics Olympiad.

9. Advantages and disadvantages of private schools

The different performance of students who enroll in private gymnasiums and lyceums is possibly explained by the following advantages and disadvantages of private schools:

Advantages

- a) Higher fees. The main difference between the private and public labor market in Greece is the extra wages of the 13th and 14th salaries. This means that many educators in private schools receive higher annual income in comparison with their colleagues in the public sector due to the extra two salaries, productivity premiums, extra insurance contracts, discounts in supermarkets, mobile phone contracts, benefits for the children of employees, and many others. It is obvious from the research that educators in the private sector feel significantly more satisfied (an overall percentage of 55%) in comparison to educators in public gymnasium-lyceums (an overall percentage of 2%).
- b) More discipline. The students in private schools attend more lesson hours due to not existence of strikes and occupations. If we focus to answers of the third question “to what extent are you satisfied with the policies that your school applies to the disciplinary control of students?”, we can see that an overall percentage of 68% (50% gave the degree 4 and 18% gave the degree 5) of educators in the private sector feel satisfied with the measures of students’ control that his school adopt. In contrast, the overall percentage of satisfaction in the public sector was 47% (43% gave degree 4 and 4% gave degree 5). This means that two out of three educators in the

private sector feel satisfied with the rules and the application of the rules. On the other hand, lower of one out of two educators in the public sector feel that their schools adopt suitable disciplinary measures.

- c) Full-time operation. If an educator must be absent from his duties due to serious health problems or pregnancy for women teachers, then the management of the school responds directly and hires new educators with similar studies. In contrast, in the public sector, the time needed to cover any absence for health reasons is significantly more. In some cases, maybe some months. Also, low-experience or younger educators are one-third of the volume of educators in the private sector (33%) and 16% in the public respectively as we saw in table 3. If we take into consideration that there is a positive relationship between age and health issues, then is logical to conclude that the volume of absences in the private sector is lower in comparison with the public one. Last but not least, educators in private schools try to be more consistent with their duties to prove to the management of the school to trust them. So, there are no absences for no significant reasons.
- d) Extra hours of lessons. The students in private schools take part in extra curriculum activities, such as robotics groups, and Olympiad groups of mathematics – physics – chemistry – economics, entrepreneurship – debate – astronomy group and many others. These groups usually take part in the respective national competitions. The private schools have a strong incentive to offer extra activities because any distinction in these national competitions contributes to their good reputation and offers an extra opportunity to the marketing department of the school for no-fee advertisement.
- e) Evaluation of the performance. The parents of the students and the percentages of students' success in the national competitions and exams give strong feedback to the management board of the school. So, the educators at private schools are more careful about their educational and social performance because the management can fire them without significant restrictions. In other words, educators in private schools and especially well-known ones have a strong incentive to be more productive.
- f) Better support. The educators in private schools enjoy secretary and information technology (IT) support. So, they focus only on their educational duties without spending time on any bureaucracy or technical issues. In addition, the cleanliness of the classrooms and the school building, in general, is a significant factor for every private school to be competitive in the market. The factors above contribute to a better work and educational environment which lead to better performance. This argument is documented in the second question "to what extent are you satisfied with the physical capital working conditions at your school (building infrastructure, the office you work in, cleanliness, technological access)?" The degree of satisfaction was significantly higher among the educators of private schools (42% very high satisfaction among private educators instead of 4% in their colleagues of public schools).
- g) Better collaboration. In the private schools, there are no political unions that are linked with the official political parties of the Hellenic parliament. This means that there are no conflicts among educators due to differences in political perspectives. This fact contributes to a better job environment and collaboration as we saw from question 7 / figure 7. More specifically, in the question "to what extent do you feel satisfied with your relationship with your colleagues?", the maximum degree of satisfaction (degree 5), they gave the 37% of the educators in the private sector and the 18% of the educators in the public sector, respectively. In other words, the satisfaction from the relationships among the educators in public schools equals half of the respective satisfaction in private schools.

- h)** Students with a better social background. The enrolment in the private school does not depend only on geographical criteria. The criteria for private schools to enroll a specific student are mainly financial, social, and educational. So, a private school can enroll students with a better educational and social family background as we must take into consideration many pieces of research which indicate that there is a positive relationship between income and the level of education. It is worthing to mention that better “education not only contributes to an increase in income, but also makes persons happier” (Olena Stryzhak, 2020, The relationship between education, income, economic freedom, and happiness). This means that the educators in private schools work in classrooms with better-quality students. In other words, the well-known private schools can achieve better educational economies of scale.
- i)** Stability of the work environment. The educators in private schools don't change often the work environment. In contrast with their colleagues in the public sector who face uncertainty about their next school, the educators in the private sector know how to behave in their schools because they know better the culture, the work habits, and the facilities of their schools. This leads of course to better educational performance. As we saw in question 10 "how confident do you feel that shortly (e.g., 2 years from now) you will still be working at the same school you are currently working at?", only 25% of educators in public schools feel very confident (degree 5) that in the next school year will continue to teach in the same school. The respective percentage in the private sector was 40%.

Disadvantages

On the other hand, we must take under consideration in our analysis some disadvantages of private schools. The most significant of them are the followings:

- a)** The high degree of uncertainty for the workers. The work legislation is very flexible for private educators. This means that always there is the danger of dismissal. So, many educators avoid disagreeing with the decisions of the management. As we saw in the 9th question “to what extent do you feel that the Management of your school takes into account your feedback and your recommendations?” degrees 4 and 5 (which are the maximum degrees of satisfaction) are slightly higher in the educators in the public sector. More specifically, the percentage of public educators who were satisfied (degree 4) was equal to 33% and very satisfied (degree 5) was 25%. In other words, 58% of the educators in public schools feel that the management of their school considers enough or very enough significant in their recommendations. Respectively, in the private sector degree 4 represents 31%, and degree 5 the 24% of the educators, or a total score of 55%.
- b)** Pressure for elastic evaluation. It is observed often the phenomenon of many parents demands better degrees for their children. If the management of the school is afraid to disappoint the customer, then it is possible to transfer pressure on educators to be more elastic in their evaluations. This phenomenon is more difficult to meet in the well-known private schools in comparison with the smaller scale private schools (especially in the rural areas) because the well-known private school doesn't risk its reputation. This argument is documented by question number 15, “to what extent do you feel that your school offers you the freedom to apply your appropriate educational practices”. The answers with the maximum satisfaction (degree 5) were as a percentage 36% in the private sector and 26% in the public one respectively. At this point, it is worth mentioning that the part of the research that refers to private educators took place mainly among the educators in well-known private schools in Athens. This fact may lead to bias for some questions.

- c) The exploitation of employee power. The educators of the private schools have many duties outside of the official curriculum, such as afternoon meetings with the management or the parents of the students, attending seminars, or volunteering activities on the weekends. This is a serious problem for the life balance of educators in private schools.

10. Thesis

The differences in the degree of job satisfice between educators in private and public secondary education are a threat to social justice and peace because lead to different quality educational services and different opportunities for the students and contributes to a vicious cycle of a poverty trap. The graph below represents that poor households give their members poorer education. Poor education leads to poor healthcare because the citizens with poor education don't understand the threats from the consumption of a low-nutrition diet, cigarettes, drugs, riding a bike, abolishment of vaccines, etc. So, these people usually work low-paying jobs. The poverty trap indicates why it is difficult for a person who was born into a poor household to escape from this cycle and why is a social problem.

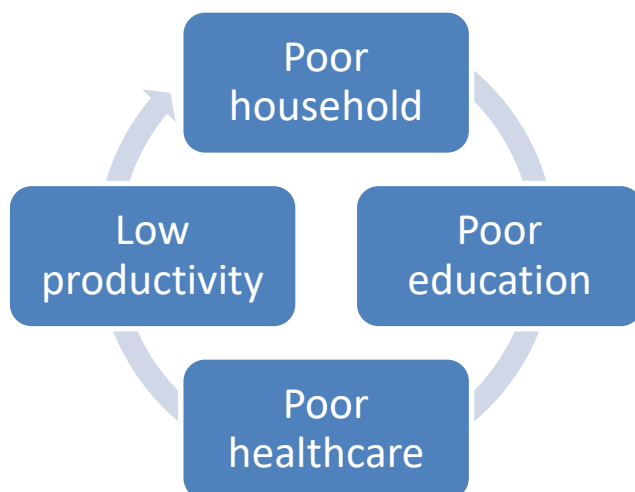


Figure 3 - the vicious cycle of the poverty trap.

If the Greek government wants to give better opportunities for growth and social improvement for the whole of the households living in the country, then it is of high importance to invest in better education and especially secondary one. Some measures that the educational authorities could take are the followings:

- a) Increase in the annual salary for educators to cover the financial gap between the private and public gymnasiums and lyceums. The return of the 13th and 14th salaries in the public sector will contribute to an improvement in the basic needs of educators. The average annual gross starting salary of teachers in the European Union in the school year 2020 / 2021 was about 25.055 euros, according to the European statistical authorities [10]. Greece was in 24th place with a salary of 13.104 euros or the equivalent of 52% of the average annual European salary. It is worth mentioning that upper of the Greece in the related list were countries with lower GDP per capita such as Croatia and Estonia / figure 18.
- b) Investment in modern buildings with better infrastructure, secretary, and IT support to close the technological gap between the private and public sectors. This measure will cover the safety needs of educators in the public sector and will contribute to a more hygienic work environment.

- c) Better management. The head of the school doesn't need to be an educator but a person with leadership skills, management experience, and related studies to educational management. The way that someone increases in the hierarchy in the public sector may be not the appropriate and fair for the educators in public schools.
- d) High productivity incentives. High productivity performance can be measured through the participation of students in national and international student competitions (e.g., Economics or Mathematical Olympiad, student entrepreneurship competitions, etc.), national and international distinctions, and awards.
- e) Also, the high productivity of the school can be measured by the publications, scientific articles in journals, presentations at scientific symposiums, master diplomas, certifications in foreign languages, and cutting-edge educational technologies of the school educators. Educators with high qualifications must receive different financial and non-financial fees. This measure will give an incentive to the entire educational community to be more productive. Also, highly productive educators must increase the hierarchy.
- f) Incentives for self-improvement. The government must subsidize post-graduate programs and certifications for educators who want to improve their skills.
- g) Subsidy of education for every household through vouchers or tax cuts. Education is a merit good; this means that any government spending in this field will lead to greater productivity in the future and consequently greater social development. This measure will lead to an increase in the supply of private schools, higher enrollment in private schools, and boost competition between public and private schools. The tougher competition will improve the quality of educational services in public schools in the future. In some rural areas or islands in Greece, the public schools have monopoly power and consequently, the consumers have lower choices. In the year 2018, the percentage of Greek students attending public schools was 94% or 12% higher than the OECD average attendance (82%). It is worth mentioning that in some countries, such as Hong Kong, the United Kingdom, the Netherlands, Chile, the United Arab Emirates, Lebanon, and Macao, more than one in two students attended a private school, according to the official data of OECD [\[11\]](#).
- h) Elimination of monopoly power. Students may have the ability to enroll in a school with educational and not demographic criteria. This will improve the competition among the schools. For example, a bigger portion of students in every school (e.g., 80%) would enroll with the geographical criteria and the other portion (e.g. 20%) with other criteria such as specific athletic, cultural, or scientific achievements. This measure can lead to economies of scale for every school if any school decides to specialize in a specific area (e.g. to collect athletes in basketball or students with achievements in robotics, etc.). It is worth mentioning that there are many difficulties for the educational authorities to organize a fair and clear attending system with objective criteria. This is the reason why I am an advocator of the opinion that there is a need for the government to subsidize private schools.
- i) Rankings for the schools related to the demand for enrollment, and achievements of students and teachers. Parents need to search easily and freely for the score of educational performance by high school, whether public or private. This measure will help the better allocation of resources in the educational market.
- j) The link between financial support and the ranking of the school. For example, the educational authorities can adopt several criteria to measure the effectiveness of a school such as the degrees of the students in the national exams (panelladikes), the participation of the school in national

- competitions (e.g., mathematics or physics, or economics Olympiad), the achievement of the school team in national athletic competitions (e.g., football or basketball or volleyball), the volume of teachers who take masters or Ph.D. diplomas and many other quantitative variables.
- k) The ability of a local body (municipality or university or intervention groups) to establish an educational unit with relatively free operating conditions. This unit is partially or fully funded by the State and becomes responsible only for achieving good learning outcomes.
 - l) Establishment of public international schools. If we want to prepare the new generation to be competitive in the international market then there is a need for studies in foreign languages (e.g., English) in tertiary education. So, if this will be the case, then the government can establish public international lyceums to improve the quality of studies in secondary education. This type of school could teach only educators with high knowledge and skills. A real-life example is Denmark where from October 2020 till now, the Lolland Municipality decided to establish the “Lolland international school”, which is an international public school with no tuition fees for both Danish and international families. The students can obtain a Danish exam in an international environment with teaching in English.

11. Conclusion

The current research indicates that the work environment in the industry of education in Greece differs between the private and public sectors. This leads to different learning outcomes and unfortunately contributes to an existence of social discrimination. Different types of students face different opportunities for social development. If nothing changes today in Greek secondary education, then the social mobility in the future for our country will diminish and this will be a threat to the social peace and economic development of the country. This is the reason why it could be of high importance for the Greek government to create independent educational authorities whom they will have as the main purpose the adjustment of Greek education to international educational, social, and economic trends. The reduction of the political power of the Greek Ministry of Education in forming the official curriculums, the improvement of management in the schools, the establishment of financial and non-financial incentives, the reduction of the monopoly power of public education by the establishment of new schools by local bodies (municipalities, universities, non-profit organizations), the subsidy of private education, and the reduction of the influence of educator unions, may reduce or solve the problem of educational discrimination in the future.

On the other hand, these changes are difficult to adopt by any government because lead to political costs and at the same time demand a high volume of financial resources. So, it is hypocritical for politicians to do statements that they are afraid of the phenomenon of brain drain because any household that wants to offer a better future for its young members must invest in state-of-the-art education. If our country wants to stop the withdrawal of human capital must intervene now in the educational market to help Greek households, without exceptions, to obtain a quality education. This is the only safe way to improve the quality of the factors of production and boost the productivity of the Greek economy in the future.

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Appendix

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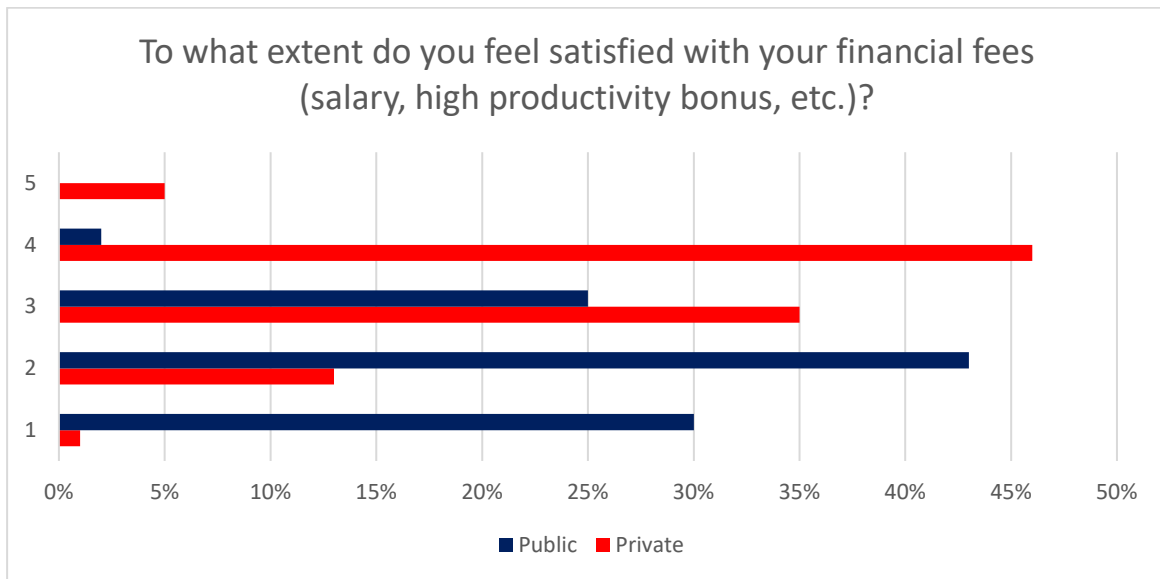


Figure 4 – Salary / Hygiene factors (Herzberg) or basic needs (Maslow) / question 1.

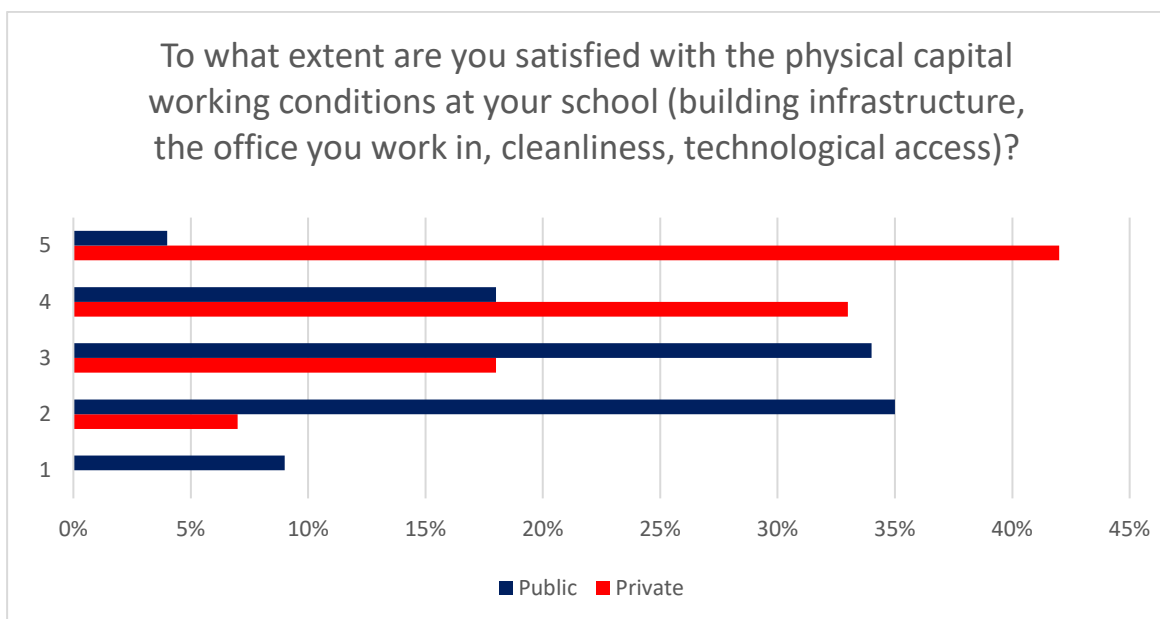


Figure 5 – Working conditions & technological supervision / Hygiene factors (Herzberg) or basic needs (Maslow) / question 2.

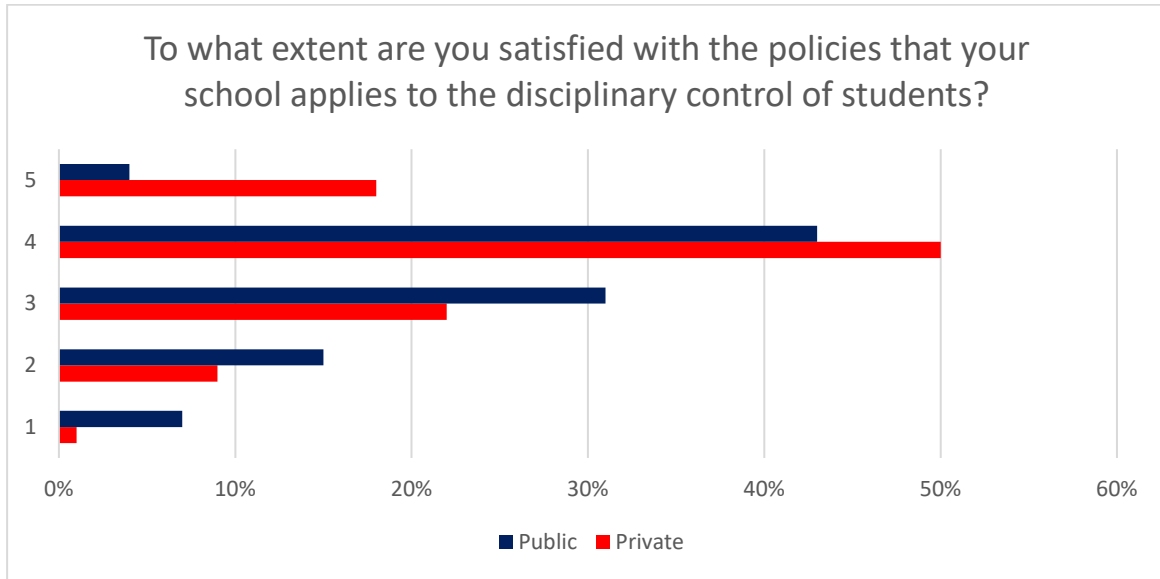


Figure 6- Policy & administration / Hygiene factors (Herzberg) or safety needs (Maslow) / question 3.

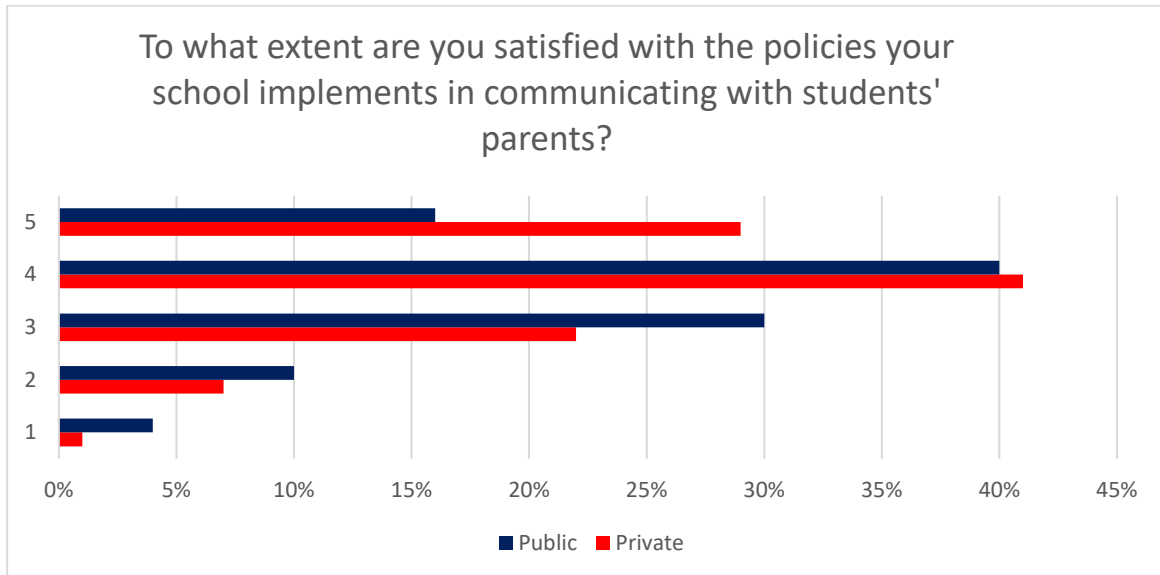


Figure 7 - Policy & administration / Hygiene factors (Herzberg) or safety needs (Maslow) / question 4.

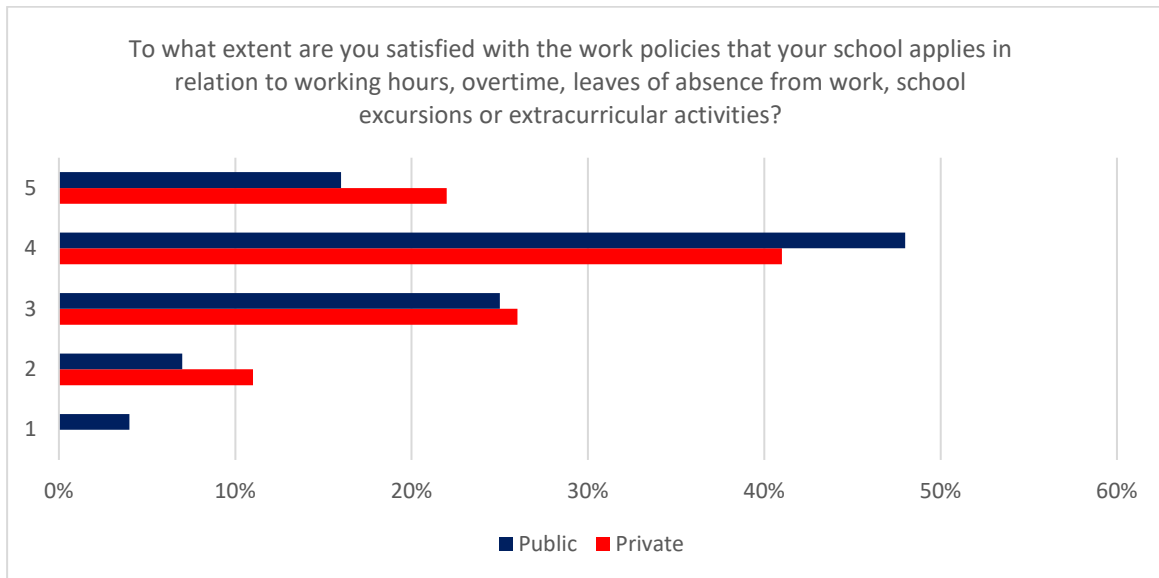


Figure 8 – Working conditions / Hygiene factors (Herzberg) or basic needs (Maslow) / question 5.

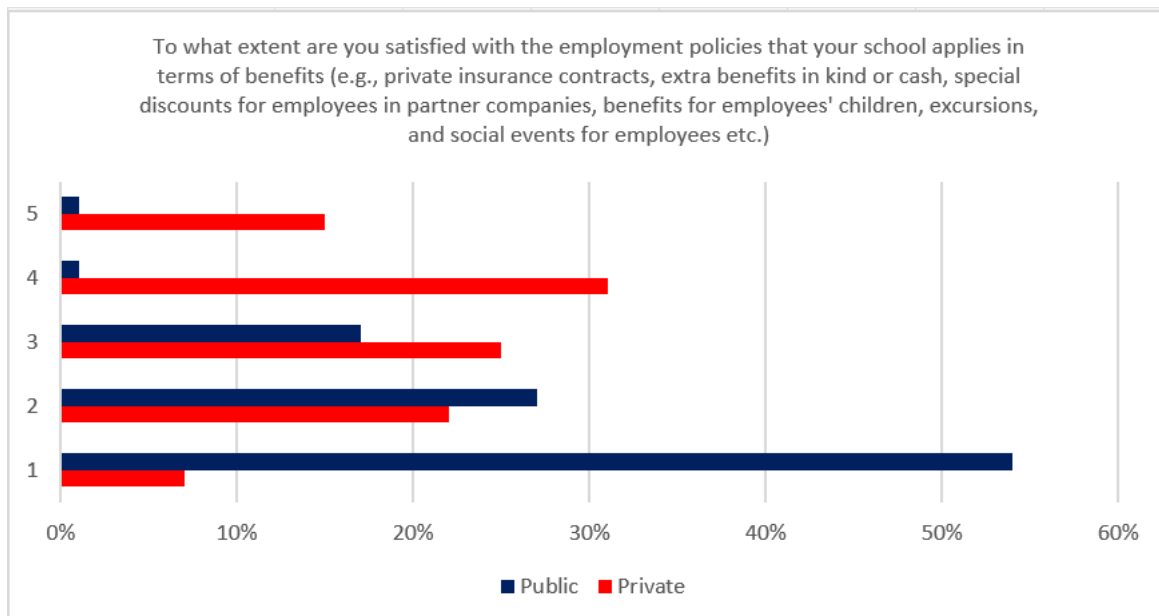


Figure 9 - Policy & administration, personnel life / Hygiene factors (Herzberg) or safety needs (Maslow) / question 6.

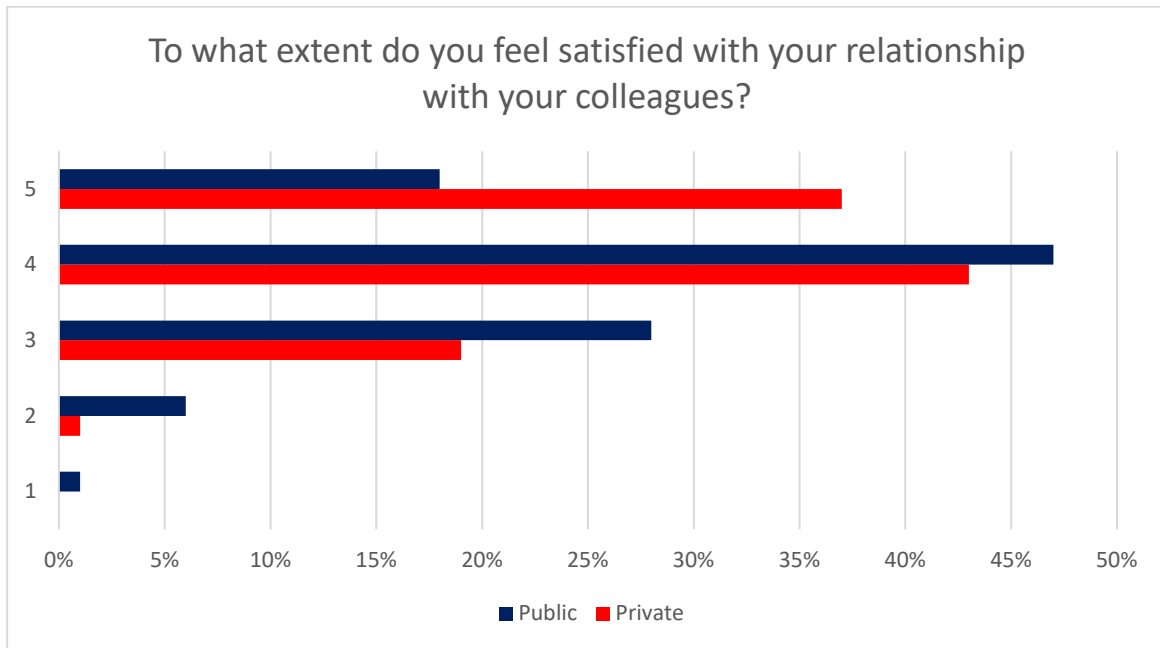


Figure 10 - Relationship with colleagues and subordinates / Hygiene factors (Herzberg) or belonging needs (Maslow) / question 7.

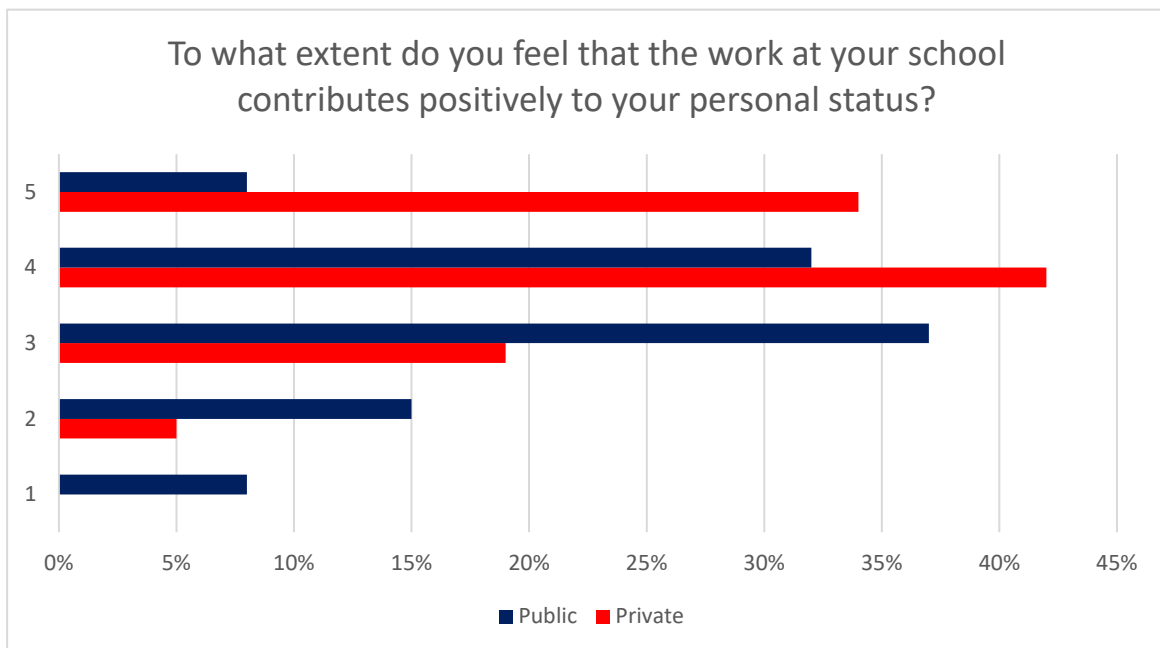


Figure 11 - Status / Hygiene factors (Herzberg) or Ego-status (Maslow) / question 8.

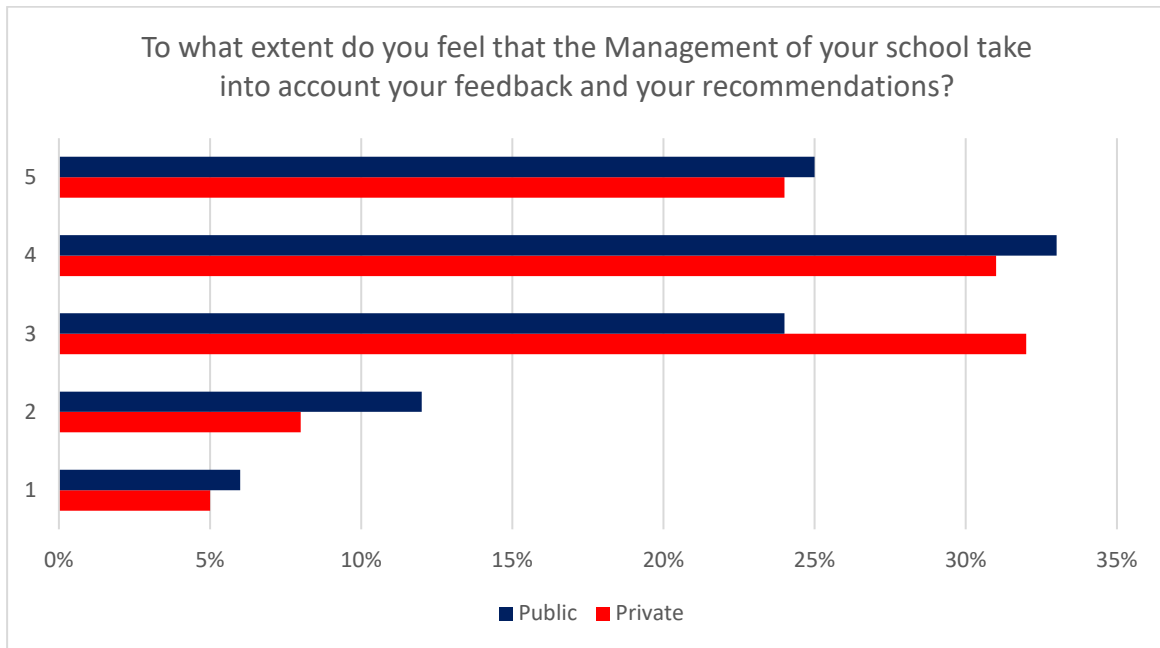


Figure 12 - Relationship with supervisor / Hygiene factors (Herzberg) or belonging needs (Maslow) / question 9.

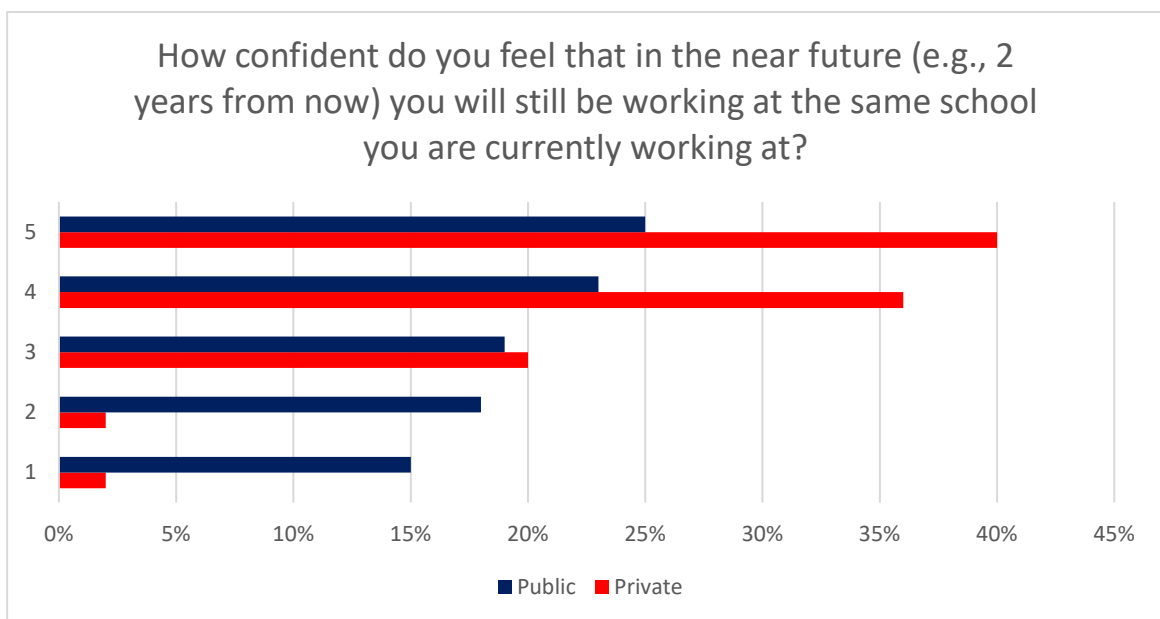


Figure 13 – Job security / Hygiene factors (Herzberg) or safety needs (Maslow) / question 10.

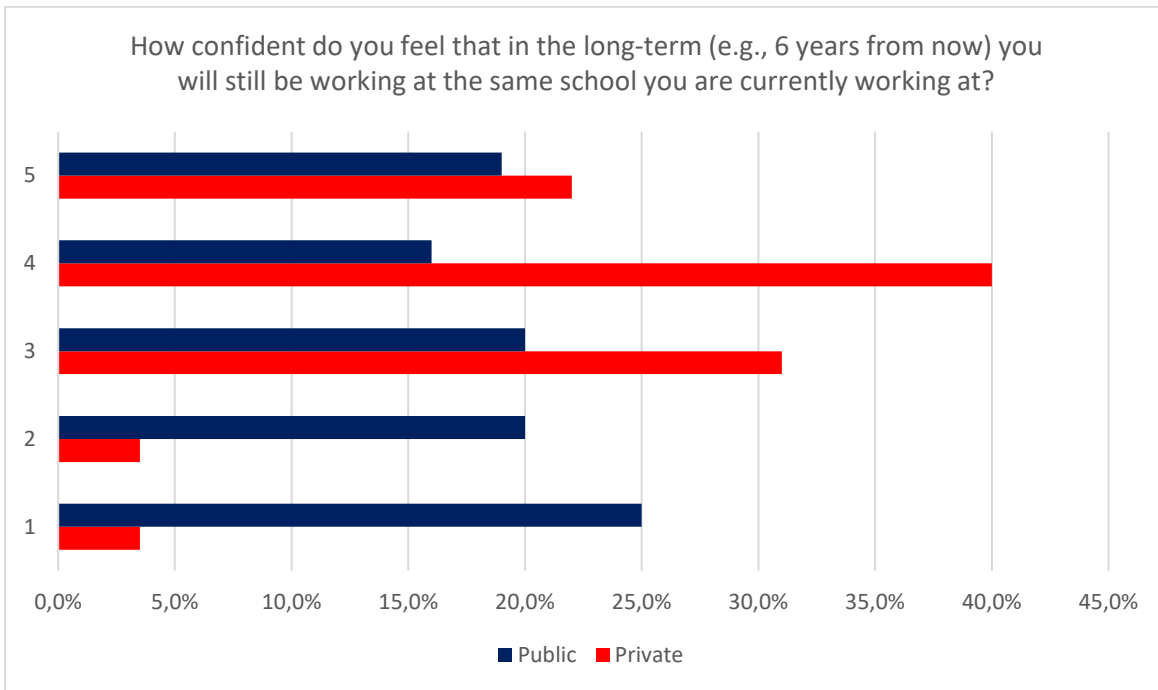


Figure 14 - Job security / Hygiene factors (Herzberg) or safety needs (Maslow) / question 11.

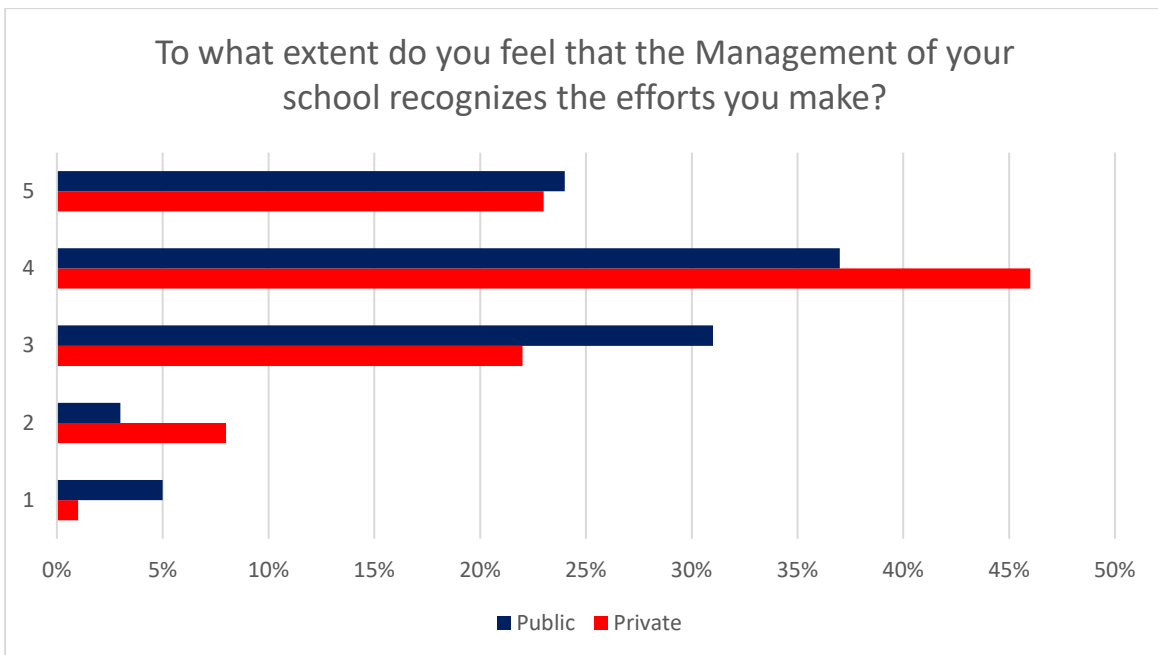


Figure 15 - Recognition / Motivators (Herzberg) or ego-status (Maslow) / question 12.

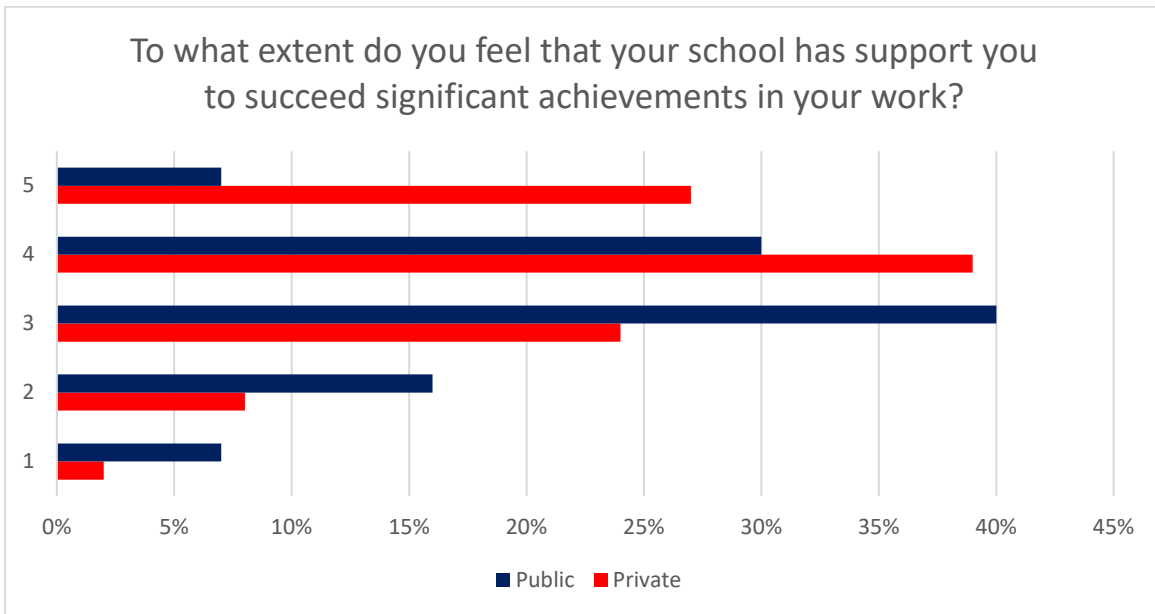


Figure 16 - Achievements and personal growth / Motivators (Herzberg) or self-actualization (Maslow) / question 13.

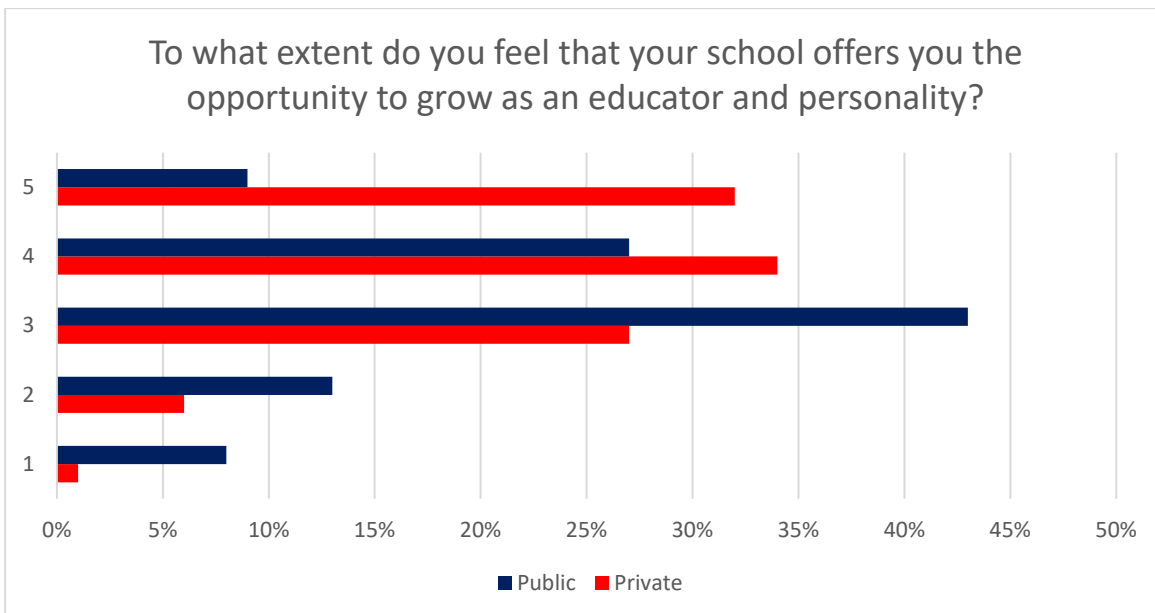


Figure 17 - Personal growth / Motivators (Herzberg) or self-actualization (Maslow) / question 14.

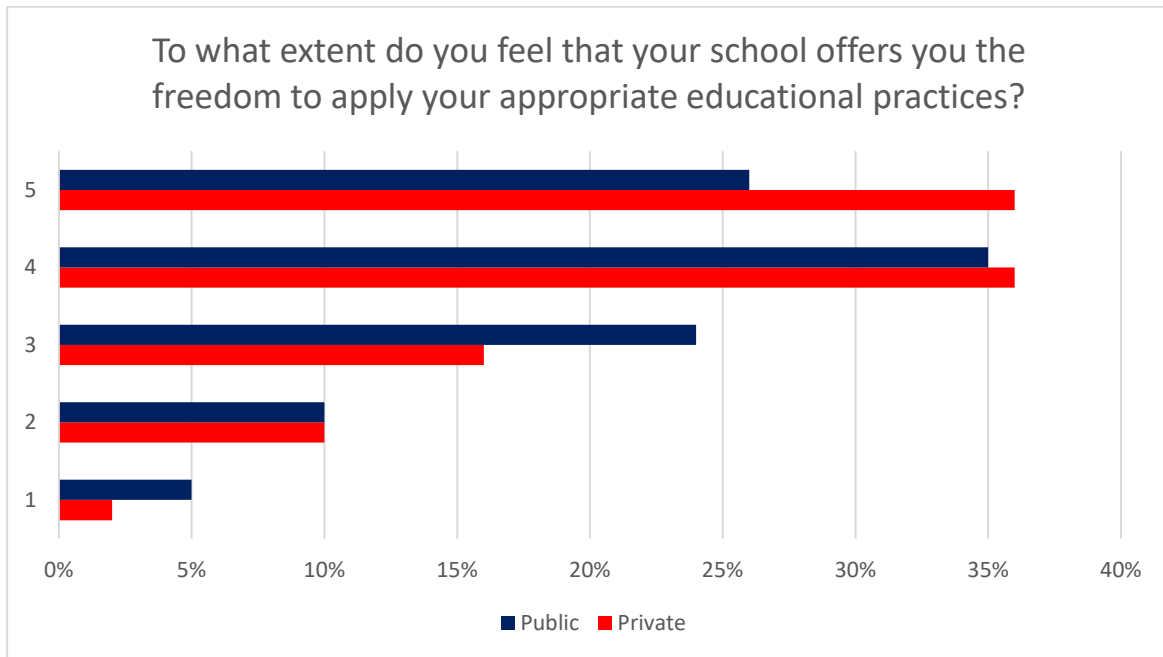


Figure 18 – Responsibility and Personal growth / Motivators (Herzberg) or self-actualization (Maslow) / question 15.

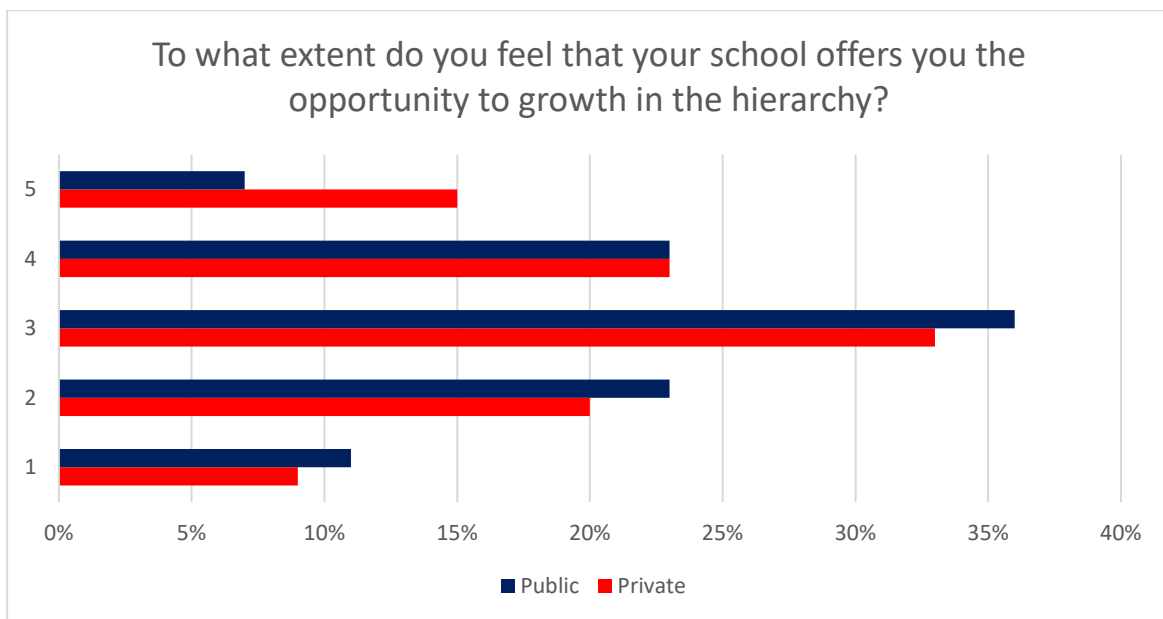


Figure 19 – Opportunities for advancement and Personal growth / Motivators (Herzberg) or ego-status (Maslow) / question 16.

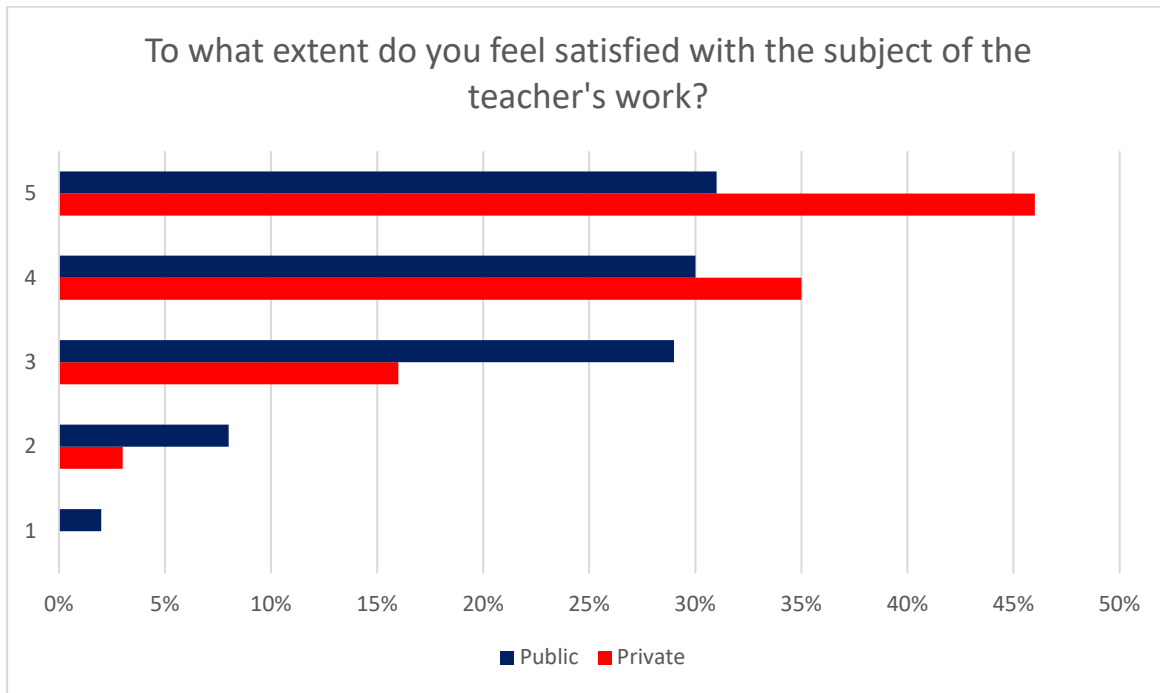


Figure 20 – The work itself / Motivators (Herzberg) or self-actualization (Maslow) / question 17.

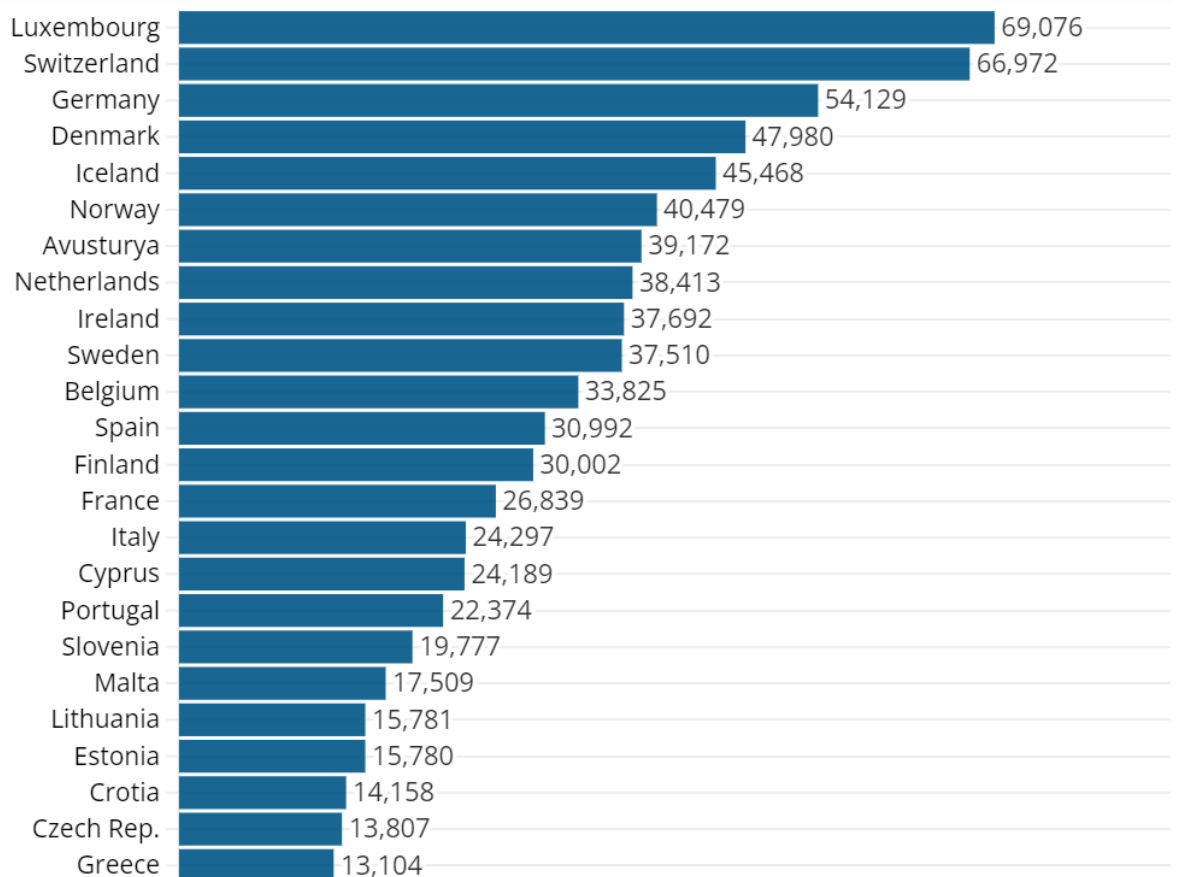


Figure 21 - The average annual gross starting salary of teachers in the European Union in the school year 2020 / 2021. Source: Eurydice • (Statutory salaries in public schools).

Author's Statement:

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